

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 100 - BACKGROUND

100	MISSION STATEMENT.....	100-2
105	GOAL OF THE COUNTY FOREST COMPREHENSIVE LAND USE PLAN.....	100-2
110	CHAPTER 100 OBJECTIVES.....	100-3
115	STATUTORY AUTHORITY.....	100-3
120	COUNTY AUTHORITY.....	100-3
	120.1 ORDINANCES.....	100-3
125	HISTORY.....	100-3
	125.1 STATEWIDE COUNTY FORESTRY PROGRAM HISTORY AND DEVELOPMENT.....	100-3
	125.2 SAWYER COUNTY FOREST HISTORY AND DEVLEOPMENT...	100-5
	125.3 WISCONSIN COUNTY FORESTS ASSOCIATION.....	100-7
130	GEOGRAPHIC DESCRIPTION OF FOREST.....	100-7
	130.1 SIZE, DISTRIBUTION, AND DIVISION.....	100-7
	130.1.1 Sawyer County.....	100-7
	130.1.2 Size of County Forest.....	100-7
	130.1.3 Distribution within Townships.....	100-8
	130.1.4 Forest Boundary.....	100-8
	130.1.5 Forest Blocks.....	100-8
	130.1.6 Forest Compartments.....	100-8
	130.1.7 Forest Stands.....	100-8
140	CULTURAL FACTORS.....	100-9
	140.1 RECREATION.....	100-9
	140.2 ECONOMY.....	100-9
	140.3 ROADS AND ACCESS.....	100-9
	140.4 EDUCATION AND RESEARCH.....	100-10
	140.5 TRENDS.....	100-10

CHAPTER 200 - GENERAL ADMINISTRATION

200	GENERAL ADMINISTRATION.....	200-3
205	ROLES.....	200-3
	205.1 COUNTY BOARD OF SUPERVISORS.....	200-3
	205.1.1 Forestry Committee.....	200-4
	205.1.2 Forest Administrator.....	200-4
	205.1.3 Land and Water Conservation Department.....	200-5

205.2	DEPARTMENT OF NATURAL RESOURCES.....	200-5
205.2.1	State of Wisconsin DNR Division of Forestry.....	200-5
205.2.2	DNR Field Office.....	200-6
205.2.2.1	Forest Management.....	200-6
205.2.2.2	Other Department of Natural Resources (DNR) Program Functions.....	200-7
210	COOPERATION.....	200-7
210.1	GENERAL.....	200-7
210.2	TRIBAL NATIONS.....	200-8
215	FINANCIAL SUPPORT.....	200-8
215.1	REVENUE.....	200-8
215.1.1	Timber Sale Revenue.....	200-8
215.1.2	Parks and Recreational Revenue.....	200-8
215.1.3	Other County Forest Revenues.....	200-9
215.2	OUTSIDE SOURCES OF REVENUE.....	200-9
215.2.1	State Funds.....	200-9
215.2.2	Federal Funds and Programs.....	200-11
215.2.3	Other Funds.....	200-11
220	COUNTY RECORDS.....	200-12
220.1	ACCOUNTS.....	200-12
220.1.1	State Aid Forestry Account.....	200-12
220.1.2	Account Names.....	200-12
220.2	TIMBER SALES.....	200-13
220.2.1	Active Files.....	200-13
220.2.2	Closed Files.....	200-13
225	PERSONNEL.....	200-13
225.1	FORESTRY COMMITTEE COUNTY FOREST STAFF.....	200-14
225.2	HIRING PERSONNEL.....	200-14
225.3	OTHER SOURCES OF LABOR.....	200-14
225.4	SPECIALIZED PERSONNEL.....	200-14
225.5	TRAINING.....	200-14
230	EQUIPMENT.....	200-14
230.1	FACILITIES.....	200-15
235	FOREST CERTIFICATION GROUP ADMINISTRATION.....	200-15

CHAPTER 300 - MANAGEMENT PLANNING

300	MANAGEMENT PLANNING.....	300-2
305	COUNTY FOREST COMPREHENSIVE LAND USE PLAN.....	300-2
305.1	DEVELOPMENT OF PLAN.....	300-2
305.1.1	Timeline.....	300-3
305.2	APPROVAL OF THE PLAN.....	300-3
305.3	DISTRIBUTION OF THE PLAN.....	300-4
305.4	UPDATING THE PLAN.....	300-4
305.4.1	Schedule for Updating.....	300-4

	305.5 COORDINATION WITH OTHER PLANNING EFFORTS.....	300-4
310	FOREST RESOURCE PLANNING.....	300-5
315	OUTDOOR RECREATION PLANNING.....	300-5
320	OTHER RESOURCE PLANNING.....	300-5
325	FOREST CERTIFICATION.....	300-5
	325.1 SAWYER COUNTY'S COMMITMENT OF SUSTAINABLE FORESTRY.....	300-5
	325.1.1 Sustainable Forestry Principles.....	300-6
	325.1.2 Responsible Practices.....	300-6
	325.1.3 Forest Health and Productivity.....	300-6
	325.1.4 Unique Sites.....	300-7
	325.1.5 Legal Compliance.....	300-7
	325.1.6 Monitoring and Continuous Improvement.....	300-7
	325.1.7 Sawyer County Rutting Policy.....	300-7
330	ORDINANCES.....	300-9
335	TECHNOLOGY.....	300-10
	335.1 GLOBAL POSITIONAL SYSTEMS (GPS).....	300-10
	335.2 DATA RECORDERS.....	300-10
	335.3 COMPUTERS.....	300-10
	335.4 GEOGRAPHIC INFORMATION SYSTEMS (GIS).....	300-10
	335.5 COMPARTMENT RECONNAISSANCE (RECON).....	300-11
	335.6 RAVE/RAVEN.....	300-11

CHAPTER 400 - FOREST OWNERSHIP

400	COUNTY FOREST BLOCKING.....	400-2
405	FOREST BLOCKING BOUNDARIES.....	400-2
410	LAND ACQUISITION.....	400-2
	410.1 METHODS OF ACQUISITION.....	400-2
	410.2 PAYMENT OR FINANCING OF LAND ACQUISITIONS/ EASEMENTS.....	400-3
415	ENTRY OF LANDS.....	400-3
	415.1 TIME OF ENTRY.....	400-3
420	WITHDRAWAL OF LANDS FROM COUNTY FOREST LAW.....	400-3
	420.1 WITHDRAWAL PROCEDURE.....	400-4
	420.2 PUBLIC HEARINGS.....	400-5
	420.3 COUNTY'S RIGHT TO APPEAL.....	400-6
425	LAND SURVEYING.....	400-7
	425.1 BOUNDARY SURVEYING.....	400-7
	425.2 LOCATION OF LINES BY OTHER THAN LEGAL SURVEY.....	400-8
	425.3 PRESERVATION OF LANDMARKS, MONUMENTS AND CORNER POSTS.....	400-8

CHAPTER 500 - LAND MANAGEMENT AND USE

500	LAND USE.....	500-5
	500.1 OBJECTIVES.....	500-5
505	SILVICULTURAL PRACTICES.....	500-5
	505.1 EVEN-AGED MANAGEMENT.....	500-5
	505.2 UNEVEN-AGED MANAGEMENT.....	500-5
	505.3 GREEN TREE RETENTION GUIDELINES (GTR).....	500-5
	505.3.1 Reserve Trees.....	500-5
	505.3.1.1 Typical Characteristics of Desirable Individual Reserve Trees.....	500-6
	505.3.1.2 Poor Candidates for Individual Reserve Trees..	500-6
	505.3.2 Benefits of Reserve Tree Retention.....	500-6
	505.3.2.1 Specific Potential Benefits.....	500-6
	505.3.3 Potential Costs of Reserve Tree Retention.....	500-8
	505.3.3.1 Specific Potential Costs.....	500-8
	505.3.4 Considerations for Reserve Tree Retention.....	500-8
	505.3.4.1 Shading.....	500-8
	505.3.4.2 Insect and Disease Issues.....	500-9
	505.3.4.2.1 Examples of Insect and Disease.....	500-10
	505.3.5 Representation.....	500-10
	505.3.5.1 Retention in Aggregated Patches.....	500-11
	505.3.5.2 Retention in Evenly Dispersed Trees.....	500-11
	505.3.5.3 Retention of Irregularly Dispersed Trees.....	500-11
	505.3.5.4 General Recommended Strategy.....	500-12
	Figure 24-7 Reserve Trees Retained in Patches....	500-13
	Figure 24-8 Reserve Trees Retained as a Group...	500-13
	Figure 24-9 Reserve Trees Retained Irregularly....	500-14
	505.3.6 Recommendations for Retention in Managed Stands.....	500-14
	505.3.6.1 Even-aged Rotations.....	500-14
	505.3.6.2 Even-aged Intermediate Treatments.....	500-15
	505.3.6.3 Uneven-aged Systems.....	500-15
	505.3.7 Applying Retention Recommendations Considerations.....	500-15
505.4	TIMBER SALES.....	500-16
	505.4.1 Direct Timber Sales.....	500-17
	505.4.1.1 County and State Responsibilities for Field Preparation of Timber Sales.....	500-17
	505.4.2 Advertising for Bids.....	500-18
	505.4.3 Prospectus.....	500-18
	505.4.4 Method of Bidding and Bid Opening.....	500-18
	505.4.5 Awarding Sales.....	500-19
	505.4.6 Sales Contracts.....	500-20
	505.4.7 Timber Sale Performance Bond.....	500-20

505.4.8	Contract Provisions.....	500-20
505.4.8(a)	Slash Disposal, Landings and Decking.....	500-21
505.4.8(b)	Duration and Extension of Contracts.....	500-21
505.3.8(c)	Contract Violations.....	500-22
505.4.9	Timber Sale Restrictions.....	500-24
505.4.10	Special Forest Product Contracts.....	500-24
505.4.10(a)	Policy for Town Road Right-of-Way Timber Harvesting.....	500-24
505.4.11	Timber Sale Roads.....	500-25
505.4.12	Administering and Supervising Sales.....	500-25
505.4.13	Forest Products Accountability.....	500-26
505.4.13(a)	Scaling Merchantability.....	500-26
505.4.13(b)	Utilization Standards.....	500-27
505.4.13(c)	Methods of Accountability.....	500-27
505.3.14	Special Forest Product Permits.....	500-28
505.5	FOREST REGENERATION: NATURAL AND ARTIFICIAL.....	500-28
505.5.1	Natural Regeneration.....	500-28
505.5.2	Artificial Regeneration.....	500-28
505.5.3	Costs/Benefits of Natural versus Artificial Regeneration....	500-28
505.5.4	Tools for Achieving Forest Regeneration.....	500-29
505.5.4.1	Removal of Non-Merchantable Residual Trees.....	500-29
505.5.4.2	Prescribed Burning for Natural Regeneration..	500-29
505.5.4.3	Mechanical Site Preparation.....	500-30
505.5.4.4	Chemical Site Preparation.....	500-30
505.5.4.5	Other Site Preparation Methods.....	500-31
505.5.4.6	Tree Planting/Seeding.....	500-31
505.6	TIMBER STAND IMPROVEMENT.....	500-31
505.6.1	Release.....	500-31
505.6.2	Non-Commercial Thinning.....	500-31
505.6.3	Pruning.....	500-32
510	RECREATION.....	500-32
510.1	RECREATIONAL AND TRAIL STEWARD SERVICE AGREEMENTS.....	500-32
510.2	RECREATIONAL USE PERMITS.....	500-33
510.2.1	Recreational Cabin Permits.....	500-33
510.2.2	Administration.....	500-33
510.2.3	Other.....	500-34
510.3	EXTENSIVE RECREATIONAL USE OF THE FOREST.....	500-35
510.3.1	Hunting.....	500-35
510.3.2	Fishing.....	500-35
510.3.3	Picnicking.....	500-35
510.3.4	Camping.....	500-35
510.4	INTENSIVE RECREATION AREAS.....	500-35
510.4.1	Campgrounds.....	500-35

510.4.2	Developed Picnic Areas.....	500-36
510.4.3	Swimming Areas.....	500-36
510.4.4	Boat Landings.....	500-36
510.4.5	Shooting Ranges.....	500-36
510.5	MANAGED TRAIL AREAS.....	500-36
510.5.1	Motorized Trail Opportunities.....	500-37
510.5.2	Non-Motorized Trail Opportunities.....	500-37
510.6	RECREATION OPPORTUNITIES FOR PEOPLE WITH DISABILITIES.....	500-38
515	SPECIAL USES.....	500-38
515.1	SAND AND GRAVEL.....	500-38
515.2	EXPLORATION, PROSPECTING AND MINING.....	500-39
515.3	SANITARY LANDFILLS.....	500-39
515.4	MILITARY MANEUVERS.....	500-39
515.5	PUBLIC UTILITIES.....	500-40
515.6	PRIVATE UTILITY SERVICE LINES.....	500-40
515.7	CELLULAR COMMUNICATION TOWERS.....	500-40
515.8	OTHER.....	500-41
520	AESTHETIC FOREST MANAGEMENT.....	500-41
520.1	CLASS A ZONES.....	500-42
520.1.1	Permitted Uses - Class A Zone.....	500-43
520.1.2	Restrictions - Class A Zone.....	500-43
520.2	CLASS B ZONES.....	500-43
520.2.1	Permitted Uses - Class B Zone.....	500-44
520.2.2	Restrictions - Class B Zone.....	500-44
520.3	CLASS C ZONES.....	500-44
520.3.1	Permitted Uses - Class C Zone.....	500-44
520.3.2	Restrictions - Class C Zone.....	500-45
525	TREATY RIGHTS: GATHERING MISCELLANEOUS FOREST PRODUCTS.....	500-45
530	HIGH CONSERVATION VALUE FORESTS/AREAS (HCVF) AND EXCEPTIONAL RESOURCES.....	500-45
530.1	AREAS HIGH IN LOCALLY, REGIONALLY OR NATIONALLY SIGNIFICANT BIODIVERSITY VALUES.....	500-46
530.1.1	Wisconsin State Natural Areas.....	500-46
530.1.2	Species Concentration Areas.....	500-46
530.1.3	Other.....	500-47
530.1.3.1	Camp Smith - Deadman Lakes Natural Pine Area.....	500-47
530.1.3.2	Log Creek Drumlins.....	500-47
530.2	RARE, THREATENED, OR ENDANGERED ECOSYSTEMS.....	500-47
530.2.1	Relict Old Growth Stands.....	500-47
530.2.2	Rare, Threatened & Endangered Species Habitat.....	500-48
530.2.3	Geological Features of Significance.....	500-48
530.2.4	Important Bird Area.....	500-48

530.3	CULTURALLY SIGNIFICANT FEATURES.....	500-48
530.3.1	Burial Mounds/Cemeteries.....	500-49
530.3.2	Logging Camps.....	500-49
530.3.3	Landmarks.....	500-49
530.3.4	Other.....	500-49
530.4	LOCALLY SIGNIFICANT SITES.....	500-49
530.4.1	Areas Requiring Protection not included above.....	500-49

CHAPTER 600 - PROTECTION

600	PROTECTION.....	600-2
605	FIRE CONTROL.....	600-2
605.1	COOPERATION WITH THE DEPARTMENT OF NATURAL RESOURCES (DNR).....	600-2
605.1.1	Personnel.....	600-2
605.1.2	Equipment.....	600-3
605.1.3	Fire Detection.....	600-3
605.1.4	Forest Fire Prevention.....	600-3
605.2	SLASH DISPOSAL.....	600-3
605.3	DEBRIS BURNING.....	600-3
605.4	CAMPING FIRES.....	600-4
605.5	PRESCRIBED BURNING.....	600-4
605.6	COUNTY FOREST FIRE HAZARD AREAS.....	600-4
605.7	UNCONTROLLED FIRE.....	600-4
610	CONTROL OF FOREST PEST AND PATHOGEN.....	600-4
610.1	DETECTION.....	600-4
610.2	PEST SURVEYS.....	600-5
	6	
610.3	INTEGRATED PEST MANAGEMENT.....	600-5
610.3.1	Specific Pests and Pathogens of Interest.....	600-5
610.3.1.1	Gypsy Moth Strategy.....	600-5
610.3.1.2	Jack Pine Budworm.....	600-6
610.3.1.3	Oak Wilt.....	600-7
610.3.1.4	Forest Tent Caterpillar.....	600-7
610.3.1.5	Two-line Chestnut Borer.....	600-8
610.3.1.6	Emerald Ash Borer.....	600-8
610.3.2	Funding.....	600-8
610.3.3	Legal Obligations.....	600-8
610.3.4	Special Permits.....	600-9
615	TIMBER THEFT.....	600-9
615.1	TIMBER THEFT INVESTIGATION.....	600-9
615.1.1	Determination of Theft.....	600-9
620	ENCROACHMENTS.....	600-9

CHAPTER 700 - ROADS, TRAILS AND ACCESS

700	MISSION STATEMENT FOR THE SAWYER COUNTY FOREST ACCESS MANAGEMENT PLAN.....	700-4
701	CHAPTER/PLAN OBJECTIVES.....	700-4
	701.1 VEHICLE USE REGULATIONS ON ALL COUNTY FOREST LANDS.....	700-4
702	ACCESS CONTROL AND HISTORY.....	700-5
	702.1 TIMBER HARVESTING ROADS.....	700-5
705	MANAGEMENT BLOCKS.....	700-7
710	BEST MANAGEMENT PRACTICES.....	700-8
715	FOREST ROAD AND RECREATIONAL TRAIL CONSTRUCTION AND MAINTENANCE.....	700-9
	715.1 SUSTAINABLE ROAD/TRAIL DEFINITION.....	700-9
	715.2 ROAD/TRAIL SPECIFICATIONS AND DESIGN.....	700-9
	715.3 SAWYER COUNTY RUTTING POLICY/EXCESSIVE SOIL DISTURBANCE - FOREST ROADS AND RECREATIONAL TRAILS.....	700-10
	715.3.1 Rutting Standards.....	700-10
	715.3.2 Guidelines.....	700-10
	715.3.3 Standards.....	700-11
	715.3.3.1 Forest Roads.....	700-11
	715.3.3.2 Mountain Bike Trail Standards.....	700-11
	715.3.3.3 Landings.....	700-11
	715.3.3.4 Skid Trails.....	700-11
	715.3.3.5 General Harvest Area.....	700-11
	715.3.3.6 Measurements.....	700-12
	715.4 FOREST ROAD CLASSIFICATIONS.....	700-12
	715.4.1 Permanent Primary Roads.....	700-12
	715.4.2 Permanent Secondary Roads.....	700-12
	715.4.3 Temporary Roads.....	700-13
	715.4.4 Obsolete Roads.....	700-13
	715.5 FORDS.....	700-14
	715.6 ACCESS ACROSS PRIVATE LANDS.....	700-14
720	ROAD AND TRAIL DESIGNATIONS.....	700-15
	720.1 OPEN ACCESS.....	700-15
	720.1.1 Open Access (Forest Road).....	700-15
	720.1.2 Open Access (ATV/Snowmobile Trail).....	700-15
	720.1.3 Open Access (ATV/Snowmobile/Mountain Bike Trail).....	700-15
	720.1.4 Open Access (Snowmobile).....	700-15
	720.1.5 Open Access (Mountain Bike).....	700-16
	720.2 LIMITED OPEN ACCESS.....	700-16
	720.2.1 Limited Open Access (Forest Road).....	700-16
	720.2.2 Limited Open Access (Snowmobile).....	700-16
	720.2.3 Limited Open Access (Mountain Bike).....	700-16

720.2.4	Limited Open Access (Motorized Recreational Exclusive)..	700-16
720.2.4.1	ATV/Snowmobile Exclusive.....	700-16
720.2.4.2	Snowmobile Exclusive.....	700-16
720.2.4.3	ATV Exclusive.....	700-16
720.3	CLOSED ACCESS.....	700-17
720.3.1	Closed Access (Forest Road).....	700-17
720.3.2	Closed Access (Hunter Walking Trail).....	700-17
720.3.3	Closed Access (Recreational Exclusive).....	700-17
720.3.3.1	Single Track Bicycle Trails.....	700-17
720.3.3.2	Ski Trails.....	700-17
720.4	SIGNAGE.....	700-17
720.4.1	Closed Access.....	700-17
720.4.2	Open Access.....	700-17
720.4.3	Limited Open Access.....	700-17
725	RECREATIONAL TRAIL ACCESS.....	700-18
725.1	ROAD AND TRAIL CLOSURES.....	700-19
725.1.1	Seasonal Closure.....	700-19
725.1.2	Additional Closures.....	700-19
730	RESTRICTED ACCESS AREAS.....	700-20
735	RECREATIONAL TRAIL CONSTRUCTION AND MAINTENANCE.....	700-20
735.1	RECOMMENDED PROCESS REGARDING REQUESTS TO CONSTRUCT AND/OR MODIFY RECREATIONAL TRAILS.....	700-20
735.2	CONSTRUCTION.....	700-20
740	OFF-ROAD OR OFF-TRAIL RECREATOINAL USE BY VEHICLES.....	700-21
745	DESIGNATED NON-MOTORIZED RECREATIONAL TRAILS.....	700-21
745.1	HIKING TRAILS.....	700-21
745.2	BICYCLE TRAILS.....	700-21
745.3	HUNTER WALKING TRAILS.....	700-22
745.4	CROSS-COUNTRY SKI TRAILS.....	700-22
745.5	HORSEBACK RIDING TRAILS.....	700-23
750	MOTORIZED RECREATIONAL TRAILS.....	700-23
750.1	SNOWMOBILE TRAILS.....	700-23
750.1.1	State-Funded Trails.....	700-23
750.1.2	Local Club Trails.....	700-24
750.1.3	State-Funded Snowmobile Trails.....	700-24
750.1.4	Undesignated Snowmobile Trails.....	700-24
750.2	ALL-TERRAIN VEHICLE (ATV) TRAILS.....	700-25
750.2.1	ATV Defined.....	700-25
750.2.2	State Funded ATV Trails in Sawyer County.....	700-25
750.2.3	Big Game Retrieval.....	700-26
750.3	OTHER MOTORIZED RECREATIONAL VEHICLE TRAILS.....	700-26
750.3.1	LUV (Lightweight Utility Vehicles).....	700-26
755	RECREATIONAL TRAIL SIGNS.....	700-26
755.1	SIGNING STANDARDS.....	700-26

760	RECREATIONAL TRAIL STEWARDS	700-27
765	WATER ACCESS	700-28
	765.1 PUBLIC BOAT ACCESS SITES MAINTAINED BY TOWNS.....	700-29
	765.2 UNDEVELOPED WATER ACCESS POINTS.....	700-29
770	WILD LAKES	700-29
775	WETLANDS	700-29
780	ACCESS TO PRIVATE LANDS	700-30
785	PUBLIC UTILITY ACCESS	700-30
790	RECREATIONAL OPPORTUNITIES ON TRAILS FOR PEOPLE WITH DISABILITIES	700-30
795	RECOMMENDATIONS/FUTURE NEEDS	700-31

CHAPTER 800 - INTEGRATED RESOURCE MANAGEMENT

800	CHAPTER OBJECTIVES	800-4
805	INTEGRATED RESOURCE MANAGEMENT APPROACH	800-4
810	SUSTAINABLE FORESTRY	800-5
	810.1 TOOLS IN INTEGRATED RESOURCE MANAGEMENT.....	800-5
	810.1.1 Compartment Recon.....	800-5
	810.1.2 Forest Habitat Classification System.....	800-5
	810.1.3 Soil Surveys.....	800-6
	810.1.4 National Hierarchical Framework of Ecological Units/ Ecological Landscape of Wisconsin.....	800-6
	810.1.5 Integrated Pest Management.....	800-7
	810.1.6 Best Management Practices for Water Quality.....	800-7
	810.1.7 Forest Fire Management.....	800-8
	810.1.7.1 Uncontrolled Fire.....	800-8
	810.1.7.2 Prescribed Fire.....	800-8
	810.1.8 Outside Expertise, Studies and Survey.....	800-8
	810.1.8.1 Water Resources.....	800-8
	810.1.8.2 Wildlife Resources.....	800-9
	810.1.8.3 Soil Resources.....	800-9
	810.1.8.4 Mineral Resources.....	800-10
	810.1.8.5 Wetland Resources.....	800-10
	810.1.8.6 Navigable Streams.....	800-10
	810.1.8.7 Floodplains.....	800-10
	810.1.8.8 Cultural Resources.....	800-10
	810.1.8.9 Entomology/Pathology.....	800-11
	810.1.8.10 Endangered Resources.....	800-11
	810.1.9 Local Silvicultural Field Trials.....	800-11
	810.1.10 Local Citizen Involvement.....	800-11
820	BIOLOGICAL COMMUNITY TYPES	800-11
	820.1 FORESTED COMMUNITIES.....	800-12
	820.2 NON-FORESTED COMMUNITIES.....	800-13
	820.2.1 Upland Non-Forest.....	800-13

	820.2.2 Wetlands.....	800-14
	820.2.3 Open Water Habitats.....	800-16
830	PLANT COMMUNITIES MANAGEMENT.....	800-16
	830.1 SILVICULTURE.....	800-17
	830.1.1 Aspen Management.....	800-17
	830.2 LOCALLY UNCOMMON TREES.....	800-17
	830.2.1 Jack Pine.....	800-18
	830.2.2 American Elm.....	800-18
	830.2.3 Butternut.....	800-18
	830.3 TREES LOCALLY DIFFICULT TO REGENERATE.....	800-19
	830.3.1 Hemlock.....	800-19
	830.3.2 White Birch.....	800-19
	830.3.3 Northern Red Oak.....	800-19
	830.4 EXOTIC PLANT SPECIES OF CONCERN.....	800-20
	830.5 LEGALLY PROTECTED PLANT SPECIES.....	800-20
	830.6 OTHER PLANT SPECIES AND NATURAL COMMUNITIES OF CONCERN - NHI.....	800-20
	830.6.1 Special Concern Plants.....	800-21
	830.6.2 Natural Communities.....	800-21
	830.6.3 Land Legacy Areas.....	800-21
840	WILDLIFE SPECIES MANAGEMENT.....	800-22
	840.1 WILDLIFE RESOURCES.....	800-22
	840.1.1 Technical Planning.....	800-23
	840.1.2 Guidelines.....	800-23
	840.1.3 Inventory.....	800-23
	840.1.4 Rare and Endangered Resources.....	800-23
	840.2 RESOURCE MANAGEMENT AND AREAS OF FOCUS.....	800-24
	840.2.1 General Management Policies.....	800-24
	840.3 HABITATS OF IMPORTANCE.....	800-24
	840.3.1 Aspen.....	800-24
	840.3.2 Jack Pine.....	800-24
	840.3.3 Forest Openings.....	800-25
	840.3.4 Lowland Conifer.....	800-25
	840.3.5 Oak.....	800-25
	840.3.6 Forest Game Species.....	800-25
	840.3.7 Forest Non-Game Species.....	800-25
	840.3.7.1 Neotropical Migrant Birds.....	800-26
	840.4 LEGALLY PROTECTED ANIMAL SPECIES.....	800-27
	840.5 OTHER ANIMALS OF SPECIAL CONCERN - NHI.....	800-27
	840.6 FISHERIES AND WATER MANAGEMENT.....	800-28
	840.6.1 Technical Planning.....	800-28
	840.6.2 Water Surveys.....	800-29
	840.6.3 Population Surveys.....	800-29
	840.6.4 Lake Management.....	800-29
	840.6.5 Stream Management.....	800-29

840.6.6	Best Management Practices for Water Quality.....	800-29
840.6.7	Shoreland Zoning.....	800-29
840.6.8	Access and Development.....	800-29
840.6.9	Important Water Resources.....	800-30
840.6.10	Importance of BMP's to Fisheries.....	800-30
840.7	CAMP SMITH LAKE.....	800-30
840.8	CAMP SMITH LAKE ACCESS.....	800-30
840.9	AERATION PROJECT ON CAMP SMITH LAKE.....	800-31
840.10	MANAGEMENT OPPORTUNITIES FOR UNNAMED LAKES.....	800-31
840.11	FISH STOCKING.....	800-31
840.12	BEAVER MANAGEMENT.....	800-31
840.12.1	Riparian Management for Trout Streams.....	800-31
840.13	INSTREAM HABITAT RESTORATION.....	800-32
840.13.1	Hatchery Creek.....	800-32
840.13.2	Mosquito Brook Flowage.....	800-32
840.14	RESEARCH OR SURVEYS.....	800-32
850	LANDSCAPE MANAGEMENT.....	800-32
850.1	BIOLOGICAL DIVERSITY.....	800-32
850.2	HABITAT FRAGMENTATION.....	800-33
850.3	HIGH CONSERVATION VALUE FORESTS/AREAS (HCVF) AND EXCEPTIONAL RESOURCES.....	800-33
850.4	EXTENDED ROTATION FOREST.....	800-33
850.4.1	Presumed Climax Forest Cover.....	800-33
850.5	OTHER SPECIAL MANAGEMENT AREAS.....	800-34
860	INTEGRATED RESOURCE MANAGEMENT UNITS.....	800-34

CHAPTER 900 - APPENDIX

900	RESOURCE MAPS AND TABLES.....	900-3
900.1	GENERAL SOIL MAP OF SAWYER COUNTY*.....	900-5
900.2	MAP OF COUNTY FOREST LOCATION*.....	900-7
900.3	OFFICIAL COUNTY FOREST ACQUISITION BOUNDARY MAPS*.....	900-9
900.4	COUNTY FOREST BLOCKS.....	900-11
900.5	FOREST COMPARTMENT MAPS.....	900-13
900.6	FOREST COVER TYPES - DETAIL.....	900-15
900.7	NATIONAL HIERARCHIAL FRAMEWORK OF ECOLOGICAL UNITS.....	900-17
900.8	GENERALIZED ENDANGERED RESOURCE LISTING FOR SAWYER COUNTY.....	900-19
900.9	LANDTYPE ASSOCIATIONS MAP.....	900-23
900.10	MAPS OF PROPOSED HARVEST AREAS.....	900-25
900.11	EVEN-AGED HARVEST & THINNING SCHEDULE.....	900-33
900.12	UNEVEN-AGED HARVEST & THINNING SCHEDULE.....	900-34
905	LAWS AND ORDINANCES.....	900-35
905.1	COUNTY FOREST LAW (s.28.11, Wis. Stats.).....	900-37

905.2	COUNTY ORDINANCES.....	900-42
905.2.1	County Forestry Ordinance*.....	900-42
905.2.2	County Owned Land Ordinance.....	900-45
905.2.3	Shoreland Zoning Ordinance.....	900-50
905.2.4	Firewood Permit Ordinance.....	900-59
905.2.5	Recreational Trail Sign Ordinance.....	900-60
910	TIMBER SALE HISTORY.....	900-63
910.1	ANNUAL GROSS TIMBER SALE RECEIPTS*.....	900-65
915	PERMITS, USE AGREEMENTS, POLICIES AND CONTRACTS.....	900-67
915.1	TIMBER SALE CONTRACT*.....	900-68
915.2	FIREWOOD PERMIT.....	900-73
915.3	BOUGH PERMIT.....	900-74
915.4	CHRISTMAS TREE PERMIT.....	900-75
915.5	LOW USE ACCESS PERMIT.....	900-76
915.6	RECREATIONAL CABIN PERMIT.....	900-77
915.7	HAYWARD ARCHERY CLUB PERMIT.....	900-79
915.8	MILITARY LAND LEASE.....	900-80
915.9	UTILITY LAND USE AGREEMENT - CORPORATION.....	900-83
915.10	UTILITY LAND USE AGREEMENT - PRIVATE INDIVIDUAL.....	900-84
915.11	APPLICATION FOR APPOINTMENT OF TRAIL STEWARDS.....	900-85
915.12	NATIVE AMERICAN GATHERING PERMIT.....	900-87
915.13	WILDLIFE HABITAT IMPROVEMENT PROGRAM.....	900-88
915.14	STATE PERMITS.....	900-91
915.15	GUIDELINES FOR DEFINING FOREST WILDLIFE HABITAT MANAGEMENT PRIORITIES - MANUAL CODE 2112.....	900-93
915.16	FOREST OPENING MAINTENANCE AND CONSTRUCTION - MANUAL CODE 2112.1.....	900-95
915.17	PUBLIC FOREST LANDS HANDBOOK - 2460.5.....	900-96
915.18	GREEN TREE RETENTION GUIDELINES (GTR).....	900-97
915.19	PROPOSED MANAGEMENT PLAN FOR CAMBA BIKE TRAILS.....	900-107
915.20	AESTHETIC POLICY: AMERICAN BIRKEBEINER TRAIL.....	900-108
915.21	SAWYER COUNTY SNOWMOBILE ALLIANCE - SNOWMOBILE AND ATV GROOMING CONTRACT.....	900-109
920	FACILITIES AND REPORTS.....	900-113
920.1	RECREATIONAL FACILITY INVENTORY.....	900-114
920.2	STATEMENT OF COUNTY FOREST LOAN.....	900-115
925	MISCELLANEOUS MAPS AND BROCHURES.....	900-116
925.1	CHEQUAMEGON AREA MOUNTAIN BIKE ASSOCIATION MAP.....	900-118
925.2	SAWYER COUNTY CROSS-COUNTRY SKI TRAIL MAP.....	900-119
925.3	HATCHERY CREEK PARK SKIING/HIKING TRAILS.....	900-120
925.4	SAWYER COUNTY SNOWMOBILE/ATV MAP.....	900-121
925.5	HUNTER/WALKING TRAIL MAP.....	900-123
925.6	SAWYER COUNTY FOREST WATERS AND FISHERY RESOURCES.....	900-125

925.7 FISHERY MANAGEMENT ON SAWYER COUNTY FOREST, BY MANAGEMENT STRATEGY.....	900-126
925.8 CERTIFIED COUNTY FOREST ROAD MAP.....	900-128

CHAPTER 1000 - NEEDS

1000 OBJECTIVES, FORMAT AND POLICY.....	1000-2
1100 DETAILED ANNUAL NEEDS FOR FIFTEEN YEARS.....	1000-2
1100.1 ANNUAL ALLOWABLE HARVEST.....	1000-3
1200 SUMMARY OF FIFTEEN YEAR NEEDS.....	1000-4
1200.1 EQUIPMENT.....	1000-4
1200.2 FACILITIES.....	1000-4
1200.3 PERSONNEL.....	1000-4
1200.4 ROADS.....	1000-5
1200.5 LAND ACQUISITION GOALS.....	1000-5
1200.6 OTHER SILVICULTURAL ACTIVITIES.....	1000-5
1200.6.1 Pruning.....	1000-5
1200.6.2 Planting.....	1000-5
1200.6.3 Release.....	1000-5
1200.7 PROPERTY MAINTENANCE.....	1000-5
1200.7.1 Surveying.....	1000-5
1200.7.2 Fire Control.....	1000-5
1200.7.3 Insect/Disease.....	1000-5
1200.7.4 Signs.....	1000-5
1200.8 RECREATION.....	1000-5
1200.8.1 Snowmobile Trails.....	1000-5
1200.8.2 ATV Trails.....	1000-5
1200.8.3 Ski Trails.....	1000-5
1200.8.4 Bike Trails.....	1000-5
1200.8.6 Recreational Camp Permits.....	1000-6
1200.9 WILDLIFE MANAGEMENT.....	1000-6
1200.9.1 Flowages.....	1000-6
1200.9.2 Endangered Resource Assessments.....	1000-6
1200.9.3 Hunter Access Trails.....	1000-6
1200.10 FISHERIES MANAGEMENT.....	1000-6
1200.10.1 Structures.....	1000-6
1200.10.2 Surveys.....	1000-6
1200.10.3 Habitat Work.....	1000-6

CHAPTER 2000 - ANNUAL PLANNING

2000 OBJECTIVE AND POLICY.....	2000-2
2100 ANNUAL WORK PLAN AND BUDGET.....	2000-3
2100.1 ANNUAL WORK PLANS.....	2000-3
2100.2 ANNUAL BUDGETS.....	2000-5

CHAPTER 3000 - ACCOMPLISHMENTS

3000 OBJECTIVE AND POLICY..... 3000-2
3100 ANNUAL ACCOMPLISHMENT REPORTS..... 3000-2
3200 PAST ACCOMPLISHMENTS..... 3000-3
 3200.1 TIMBER SALES..... 3000-3
 3200.2 RECREATIONAL DEVELOPMENTS..... 3000-4
 3200.3 WILDLIFE RESOURCES..... 3000-5

CHAPTER 4000 - INTEGRATED RESOURCE MANAGEMENT

UNITS (IRMU)..... 4000-1

GLOSSARY OF TERMS..... G-1

DRAFT

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 100

BACKGROUND

100	MISSION STATEMENT.....	2
105	GOAL OF THE COUNTY FOREST COMPREHENSIVE LAND USE PLAN... 	2
110	CHAPTER 100 OBJECTIVES.....	3
115	STATUTORY AUTHORITY.....	4
120	COUNTY AUTHORITY.....	4
	120.1 ORDINANCES.....	4
125	HISTORY.....	4
	125.1 STATEWIDE COUNTY FORESTRY PROGRAM HISTORY AND DEVELOPMENT.....	4
	125.2 SAWYER COUNTY FOREST HISTORY AND DEVELOPMENT.....	6
	125.3 WISCONSIN COUNTY FORESTS ASSOCIATION.....	8
130	GEOGRAPHIC DESCRIPTION OF FOREST.....	9
	130.1 SIZE, DISTRIBUTION, AND DIVISION.....	9
	130.1.1 Sawyer County.....	9
	130.1.2 Size of County Forest.....	9
	130.1.3 Distribution within Townships.....	10
	130.1.4 Forest Boundary.....	10
	130.1.5 Forest Blocks.....	10
	130.1.6 Forest Compartments.....	11
	130.1.7 Forest Stands.....	11
140	CULTURAL FACTORS.....	11
	140.1 RECREATION.....	11
	140.2 ECONOMY.....	11
	140.3 ROADS AND ACCESS.....	12
	140.4 EDUCATION AND RESEARCH.....	13
	140.5 TRENDS.....	13

100 MISSION STATEMENT

The mission of the Sawyer County Forest is to:

- Manage the facilities and natural resources of the Sawyer County Forest in order to provide economic, social, and ecological benefits to current and future residents of Sawyer County and the State of Wisconsin.
- Grow, sell, and harvest timber on a sustainable basis employing current science-based Forestry principles in order to provide income to Sawyer County and the Towns containing County Forest and in order to provide direct and indirect employment on a local and region-wide scale.
- Provide a broad range of sustainable recreational opportunities to foster the local tourism industry in order to serve the desires of the general public and to encourage healthy lifestyles for our citizens.
- Ensure the sustainability or enhance natural resources including soils, waterways, wetlands, groundwater, and a broad base of flora and fauna.
- Protect rare or other unique resources from degradation, destruction, or over-consumption.
- Cooperate with other public and private entities or groups to achieve mission.

105 GOAL OF THE COUNTY FOREST COMPREHENSIVE LAND USE PLAN (Hereafter referred to as the "Plan")

The goal of the Plan is:

- To administer the County Forest program consistent with the Mission Statement and the purpose and direction of the County Forest Law as stated in s. 28.11, Wis. Stats., giving consideration to input from citizens and groups.

The purpose of the County Forest Law being to:

- Provide the basis for a permanent program of County Forests.

- Enable and encourage planned development and management of the County Forest for optimum production of Forest products together with recreational opportunities, wildlife, watershed protection and stabilization of stream flow, giving full recognition to the concept of multiple-use to assure maximum public benefits.
- Protect the public rights, interests and investments in such lands.
- Compensate the Counties for the public uses, benefits and privileges these lands provide, all in a manner which will provide a reasonable revenue to the Town in which such lands lie.

Each State agency, whenever it administers a law under which a local governmental unit prepares a plan, is encouraged to design its planning requirements in a manner that makes it practical for local government units to incorporate these plans into local comprehensive plans prepared under s. 66.1001 Wis. Stats. s. 1.13(3) Wis. Stats. This County Forest Plan will complement, and should be a part of other comprehensive planning efforts within the County (e.g. economic development, tourism, etc.). There are similarities in the considerations of the plans although the County Forest plan is of smaller scale and focused by s. 28.11, Wis. Stats.

110 CHAPTER 100 OBJECTIVES

The objectives of Chapter 100 are to:

- Recognize the authority of the County and State in the administration and development of operating policies on the County Forest.
- Provide the reader of the Plan with background information regarding the County Forest.

115 STATUTORY AUTHORITY

The County Forest Law (s. 28.10 and 28.11 Wis. Stats.) provides the authority to establish, develop, and manage a permanent County Forest Program. (For the full text of the County Forest Law refer to Chapter 900 (905.1).

120 COUNTY AUTHORITY

The County Forest Comprehensive Land Use Plan is the official County Forest authority. The Forestry Committee of the County Board (hereafter referred to as the "Committee") enforces the regulations governing the use of the County Forest.

120.1 ORDINANCES

The County ordinances that apply to the administration and management of the Sawyer County Forest can be found in Chapter 900.

125 HISTORY

125.1 STATEWIDE COUNTY FOREST PROGRAM HISTORY AND DEVELOPMENT

1860 TO ABOUT 1920: Much of Wisconsin was covered with magnificent stands of pine, hemlock, and hardwoods on the highlands, and cedar, spruce and balsam on its lowlands. These Forests were harvested to provide raw material for a thriving lumber industry spawned from the need to supply lumber for a growing nation. Unfortunately, the lack of sustainable Forest management practices resulted in over-harvest of the Forests and degradation of the landscape. Immigrants were encouraged to settle on these newly cleared lands. Settlement was rapid as these immigrants were hungry for a place to farm and build their lives. But in just a short period of time, millions of acres of formerly forested lands proved unsuitable for agriculture.

De-population occurred in northern Wisconsin when settlers moved on to other places to seek better opportunities. When settlers left their worthless and barren land, it most often went tax delinquent with no willing buyers. County governments across northern Wisconsin were left with tax deeds for millions of acres of deforested, tax delinquent land. For the Counties, there seemed to be no suitable use for these lands, so the State Legislature became involved.

1927: The State Legislature enacted the Forest Crop Law (FCL), allowing private landowners to essentially defer the majority of their property tax in return for practicing Forestry for a 25 or 50-year period. It also authorized Counties to create County Forests. An opinion of the Attorney General with reference to the Forest Crop Law stated that the Counties would be exempt from the owner's share of annual tax.

1929: The Legislature specifically provided that Counties were exempt from paying the "acreage share" required of private owners.

1931: The legislature amended the County Forest Reserve Law of 1929. It provided for the payment of acreage aids to Towns for County Forest land, and an additional annual State payment of \$.10/acre to the Counties for all land within County Forests entered under the Forest Crop Law. Counties were required to spend this aid money solely for the development of the County Forest. In return for this aid, the State originally collected a seventy-five percent (75%) severance tax on the products cut on County Forests. This was reduced to fifty percent (50%) in 1937 and then to twenty percent (20%) of gross sales in 1963.

1963: A major change occurred regarding the County Forests and their regulation. A new State statute (Statute Chapter 28) was developed and passed specific to County Forests, and separate from the Forest Crop Law (Statute Chapter 77) which previously provided guidance on the management of County Forests. One of the most notable changes that occurred was that Chapter 28 created a permanent program of County Forests that would be managed in accordance with a 10 Year Comprehensive Land Use Plan developed by the

County, with assistance from the Department of Natural Resources. The severance tax on harvested Forest products still remains at twenty percent (20%) of the stumpage values, although no severance tax is collected if Counties do not have a loan balance.

1963 to present: A number of grants, loans and shared revenue payments are currently available to Counties to help offset any losses in taxes due to public ownership. The acreage share payment to towns is currently \$.30/acre. In addition, Towns with County Forest land receive a minimum of ten percent (10%) of the stumpage revenue from their respective County Forest each year. Twenty-nine (29) counties in Wisconsin now own approximately two and one-third million acres entered under the County Forest Law, generating stumpage revenues exceeding \$18,000,000 annually.

Twenty-First Century: Early into the 21st century it became clear that forest certification was a necessity for the County Forest system. The forest products industry was increasingly requiring their suppliers to verify that the raw materials being supplied originated from well-managed forests. In 2005, twenty-seven of the twenty-nine County Forests committed to certification under the Sustainable Forestry Initiative (SFI) and/or Forest Stewardship Council (FSC).

125.2 SAWYER COUNTY FOREST HISTORY AND DEVELOPMENT

1932: A County resolution was adopted designating County Forest Reserve Units. The units established were the Namekagon, Totogatic, Lake Chetac North, Lake Chetac South and the Thornapple Forest Reserve Units. At the same time, the County Conservation Committee was placed in charge of the administration of these lands. They were also authorized to select some individuals to supervise activities on the Forest. The first Administrator was given the title of County Trespass Officer. He was to be responsible to the Conservation Committee and to work in cooperation with the Wisconsin Conservation

Department.

March 18, 1933: The first application was made by Sawyer County to enter non-agricultural County owned lands under the State Forest Crop Law and the County Forest Reserve Law. These lands were to be designated by the Conservation Committee, Agricultural Committee and Tax Deed Lands Committee.

1932-1941: An important development in the history of the Sawyer County Forest was the establishment of the Smith Lake Civilian Conservation Corps (CCC) Camp, located in Section 8, Township 42 North, Range 7 West. This Camp was started in 1932 and closed down in 1941. The Federal CCC program employed young men who worked hard planting trees and improving the Forest and Forest infrastructure. Among the accomplishments on the Sawyer County Forest were 4,688 acres of trees planted and 4,237 acres of timber stand improvements. Other projects included white pine blister rust control, construction of fire towers, telephone lines, fire lanes and firebreaks.

1933: The total acreage of Sawyer County land entered under the Forest Crop Law was 37,622 acres.

1934: The first County Forest ordinance was adopted.

1937: The first recorded County Forest withdrawals occurred.

1939: Portions of Section 21, Township 42 North, Range 8 West were withdrawn for purposes of exchanging land to obtain flowage rights on the Totogatic Flowage. Also in 1939, upon the recommendation of the State and resolution of the County Board, County lands within the boundaries of the Flambeau River State Forest were traded for State lands within the boundaries of the Sawyer County Forest. At this time, the Sawyer County Forest was in excess of 70,000 acres.

1941: Starting about this time, lands that could be purchased for a reasonable price within the County Forest boundaries were acquired. Among the lands acquired was the Hans Thompson property in Section 7, Township 42 North, Range 7 West. These purchased lands, together with lands acquired through tax

delinquency were entered under the Forest Crop Law.

1947: A resolution was adopted that all fire lanes in Sawyer County maintained by the State be turned over to Sawyer County to be maintained and operated under the direction and supervision of the Sawyer County Conservation Committee. Later, many of these roads were turned over to the individual Townships to be entered under the Town Road Systems.

1964: The total acreage of the Sawyer County Forest was 113,079 acres.

1960's: First snowmobile trail was developed.

1973: Johnson Timber chipping mill opens just outside Hayward, increasing demand for nearly unmarketable aspen timber.

1973: First American Birkebeiner Cross-Country Ski race held crossing existing logging roads and town roads.

1976: The County receives a Federal grant to develop a skiing and hiking trail. The trail eventually becomes known as the American Birkebeiner Trail.

1979: Louisiana-Pacific wafer board plant constructed, greatly increasing demand for aspen timber resource.

1979: American Birkebeiner Trail widened to present width.

1988: First funded ATV trails developed.

1993: First Chequamegon Area Mountain Bike Association (CAMBA) trail developed.

1994: County Forest gross timber sale revenues reaches \$377,678.

2001: County Forest gross timber income exceeds \$1,000,000 for the first time.

2004: Current acreage on the Sawyer County Forest is 113,850.91 acres.

125.3 WISCONSIN COUNTY FORESTS ASSOCIATION

Sawyer County is a member of the Wisconsin County Forests Association, Inc. (WCFA). This Association was incorporated on May 15, 1968 under Chapter 181 of the Wisconsin Statutes, without stock and not-for-profit. The WCFA Board of Directors is composed of ten (10) delegates elected from the

County Forestry Committees who are members of the Association. This corporation provides a forum for consideration of issues and policy that are common to all of the County committees responsible for their respective County Forest programs, including those programs encompassed under s. 28.11 and Chapter 77, Wis. Stats. WCFA also provides leadership and counsel to County Forest Administrators and Forestry Committees through regular meetings and active committees on legislative and recreational issues.

130 GEOGRAPHIC DESCRIPTION OF FOREST

130.1 SIZE, DISTRIBUTION, AND DIVISION

130.1.1 Sawyer County

Geographically, Sawyer County is the fourth (4th) largest County in Wisconsin with a land area of 804,570 acres, plus another 59,289 acres of water included in lakes and streams. Approximately ninety-four percent (94%) of the land in the County is classified as Forest land.

130.1.2 Size of County Forest

The Sawyer County Forest (SCF) is 113,850.91 acres. It is the ninth (9th) largest County Forest in the State.

130.1.3 Distribution within Townships

Twelve (12) townships contain Sawyer County Forest acreage and is distributed between the Townships as shown below:

Township	Acres	% of Total
Couderay	4,570.77	4.021%
Draper	6,546.14	5.75 %
Edgewater	8,631.28	7.58%
Hayward	2,282.05	2.00%
Lenroot	23,004.82	20.21%
Meadowbrook	8,275.97	7.27%
Meteor	2,205.68	1.94%
Radisson	1,520.00	1.34%
Round Lake	2,772.79	2.44%
Sand Lake	2,294.69	2.02%
Spider Lake	7,872.90	6.92%
Winter	43,873.82	38.52%
Totals as of 12/30/04	113,850.91	100%

130.1.4 Forest Boundary

The County Forest has approved "boundaries". Within the County Forest boundaries, approximately ninety percent (90%) is actually County owned, with the remaining 8.5% in small private ownership, .5% industrial ownership and 1.0% State ownership. Chapter 900 contains maps showing the location of the County Forest.

130.1.5 Forest Blocks

The County Forest boundaries are comprised of seven (7) designated geographical units commonly referred to as "Forest Blocks". The three (3) largest of these Blocks are the Winter, Seeley Hills, and Totogatic Blocks. Other Blocks are Draper, Couderay, Sissabagama and Edgewater.

130.1.6 Forest Compartments

To facilitate management, the County Forest is divided again into smaller management units called "Forest Compartments". There are one hundred sixteen (116) Forest Compartments ranging in size from two hundred four (204) acres to nearly twenty-one hundred (2,100) acres. A map of these Compartments can be found in Chapter 900.

130.1.7 Forest Stands

Forest Compartments are divided or mapped into smaller units called "Forest Stands". Forest Stands are timber/vegetative types or natural features of similar composition (similar species, age, density, soils, etc.).

140 CULTURAL FACTORS

140.1 RECREATION

Forest-based recreation has expanded rapidly in recent years in Sawyer County. Recreational opportunities with developed facilities include boat landings, snow-mobile and all-terrain vehicle, hunter/walking, biking and cross-country ski trails. The County Forest also provides tremendous opportunities for informal recreational pursuits not requiring developments. These include hunting, fishing, berry and mushroom picking, bird watching, hiking and sight-seeing. See Chapter 900 for list of recreational facilities in Sawyer County.

140.2 ECONOMY

The economy and quality of life in Sawyer County is heavily dependent on the traditional resources the County Forest provides. The Forest industry is the #1 ranked employer in the County followed closely by Recreation and Tourism. The economic multiplier effect of timber moving from stump to finished product at mills is a powerful economic force in Sawyer County. The Forest road

and trail infra-structure that has been primarily built by logging activity to move timber from the Forest has provided incredible spin-off benefits to recreationalists and the tourism industry. Forest roads originally built to support logging activities provide the trail base for the snowmobile, ATV, mountain biking, and hunter/walking trail systems. Other trails not constructed for removing cut Forest products are also very important to the economy of the County. The American Birkebeiner Cross-Country Ski Trail attracts visitors from around the world and features a world-class Worldloppet ski race that brings millions of dollars to the area's economy each February.

140.3 ROADS AND ACCESS

All Sawyer County Forest lands are open for public use and for foot travel. Town, County and State highways provide access to the Forest. Many of the logging roads in the Seeley Hills Block were developed by the Civilian Conservation Corps (CCC) crew located near Camp Smith Lake. These roads are still in use today and remain in relatively good condition because of the soils in this block of the County Forest. Although it does not maintain any officially recognized County Forest roads for which Forest road aids are paid, the County has over five hundred forty-four (544) miles of roads and recreational trails within its' boundaries. This includes an estimated:

- 27 miles (approximately) of gated or bermed special use trails
- 334.8 miles of designated snowmobile trails
- 98.7 miles of designated winter maintenance ATV trails
- 83.8 miles of designated summer maintenance ATV trails

Access management is a challenging issue on the Forest. Recreational multi-use of the Forest has increased dramatically in the 1980's and 1990's. Some of the recreational user groups have been competing for the same trails, but with

seemingly incompatible uses. While both motorized and non-motorized recreation are provided for within the Forest, balancing the uses and needs of the recreational groups has become extremely challenging. To effectively balance the recreational needs and desires, logging activities, protection of soils, waters, wetlands and other special or unique resources, an Access Management Plan for the Sawyer County Forest has been developed. **See Chapter 700 for detailed discussion on Forest Access.**

140.4 EDUCATION AND RESEARCH

Education and research continues to be critical components in making decisions that affect our natural resources. As public needs and demands of our Forest and its products increase, we must be prepared to assure that sound decisions result. To this end, Sawyer County encourages and supports research efforts that relate to the Forest, and educational opportunities that will promote a better understanding of Forest communities, sustainable forestry practices, and Best Management Practices for Water Quality.

140.5 TRENDS

The values and uses of the Sawyer County Forest contribute significantly to fulfilling many of society's ecological and socioeconomic needs now and in the future. Changing trends will impact the values and uses of the Forest in coming years. This includes:

- Greater demands being placed on the Forest by people using it to fulfill their multi-purposes recreational pursuits.
- Increased demand for timber products. At the same time, more private Forest land is being lost to residential development, and Forest land owners are decreasingly interested in managing land primarily for timber values.

- Forest succession. Most of the County Forest acreage Statewide is a result of regeneration or planting from the early to mid-1900's. Mid-to late successional northern hardwood Forests are replacing the early successional aspen-birch, oak and jack pine Forests of the 1940's through the 1970's. The aspen cover type is key habitat for many of the State's premier game species including deer, ruffed grouse, snowshoe hare and woodcock. A declining harvest and a movement away from even-aged species on Wisconsin's National and State Forests may place the responsibility of maintaining aspen, birch and jack pine types on the county Forests. The County Forest system currently has fifteen percent (15%) of the State's public land base and twenty-four percent (24%) of the aspen resource.
- Increased conflict over timber management practices as more individuals and groups demand greater involvement in Forestry decisions. Efforts to educate the public on the merits of these sustainable forest management techniques will continue.
- Funding problems as municipalities are being required to provide more services with less money.
- Increasing knowledge about a wider variety of species and their habitat needs is leading to a growing list of threatened and endangered species. This could lead to improvements in managing the Forest and mitigating impacts to these species. Mitigating measures have the potential to impede recreational and Forest management activities. Refer to Chapter 800 (840) for specifics on this subject.

DRAFT
SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN
TABLE OF CONTENTS

CHAPTER 200

GENERAL ADMINISTRATION

200	GENERAL ADMINISTRATION.....	3
205	ROLES.....	3
	205.1 COUNTY BOARD OF SUPERVISORS.....	3
	205.1.1 Forestry Committee.....	4
	205.1.2 Forest Administrator.....	5
	205.1.3 Land and Water Conservation Department.....	5
	205.2 DEPARTMENT OF NATURAL RESOURCES.....	6
	205.2.1 State of Wisconsin DNR Division of Forestry.....	6
	205.2.2 DNR Field Office.....	7
	205.2.2.1 Forest Management.....	7
	205.2.2.2 Other DNR Program Functions.....	8
210	COOPERATION.....	9
	210.1 GENERAL.....	9
	210.2 TRIBAL NATIONS.....	10
215	FINANCIAL SUPPORT.....	10
	215.1 REVENUE.....	10
	215.1.1 Internal.....	10
	215.1.2 Parks and Recreational Revenue.....	11
	215.1.3 External.....	11
	215.2 OUTSIDE SOURCES OF REVENUE.....	11
	215.2.1 State Funds.....	11
	215.2.2 Federal Funds and Programs.....	13
	215.2.3 Other Funds.....	14
220	COUNTY RECORDS.....	15
	220.1 ACCOUNTS.....	15
	220.1.1 State Aid Forestry Account.....	15
	220.1.2 Account Names.....	16
	220.2 TIMBER SALES.....	16
	220.2.1 Active Files.....	16
	220.2.2 Closed Files.....	17
225	PERSONNEL.....	17
	225.1 FORESTRY COMMITTEE COUNTY FORESTRY STAFF.....	17
	225.2 HIRING PERSONNEL.....	17
	225.3 OTHER SOURCES OF LABOR.....	18
	225.4 SPECIALIZED PERSONNEL.....	18
	225.5 TRAINING.....	18

230	EQUIPMENT.....	18
	230.1 FACILITIES.....	19
235	FOREST CERTIFICATION GROUP ADMINISTRATION.....	19

200 GENERAL ADMINISTRATION

The objectives of the Plan are to:

- Comply with and implement the provisions of the County Forestry Ordinance.
- Administer and manage the County Forest in accordance with s. 28.11, Wis. Stats.
- Cooperate with the Department of Natural Resources (DNR) and other agencies and organizations in the interest of furthering the optimum management of the Forest on a sustainable basis.
- Provide adequate financial support for the program by using County designated revenues and appropriations, along with funds available from Federal and State sources.
- Maintain an adequate system of accounts, records and reports for the orderly administration of the Forest and to provide the basis of evaluation of program needs and implementation.
- Facilitate the administration of the Forest by authorizing personnel, equipment and facilities necessary to assist the Forestry Committee and the Administrator in carrying out their duties.

205 ROLES

Sawyer County and the Department of Natural Resources (DNR) have a mutual interest in the administration of the County Forest. It shall be the policy of the County Board through the Forestry Committee to cooperate to the fullest extent with County and State personnel in carrying out the program on the County Forest and to perpetuate the State/County partnership through the administration of the County Forest. The County/State roles are further defined in the Public Forest Lands Handbook, 2460.5

205.1 COUNTY BOARD OF SUPERVISORS

The Sawyer County Forestry Ordinance adopted in 2005 prescribes rules and regulations for the administration of County powers and duties as provided in

Chapters 26, 27, 28, 29 and 59 of the Wisconsin Statutes, under which the Sawyer County Board of Supervisors is granted specific powers relative to the establishment, development, management and protection of the County Forest to provide sustained yield of Forest products for commercial use and the associated benefits of soil and water conservation, scenic and recreational values, and fish and wildlife resources; all in cooperation with the Wisconsin Department of Natural Resources (DNR).

205.1.1 Forestry Committee

The County Board of Supervisors assigns the administration of the County Forest to the Forestry Committee as detailed below. However, the County Board of Supervisors reserves the right to make the final decision on Forestry matters. The Committee reviews and approves:

- Annual Work Plan and budget for the ensuing calendar year to be presented for the Board's approval.
- Establishment and maintenance of the facilities necessary to conduct Forest operations.
- Negotiations for and acquisition of lands necessary to further the objectives of the County Forest.
- All proposed recreation projects on the County Forest lands.
- Cooperation with the Department of Natural Resources (DNR) on all matters pertaining to natural resource management on the County Forest.
- Participation in all other activities involved in the execution and administration of Forestry operations in the County Forest program.
- Employment of personnel to administer and implement the County Forest program.
- Schedule meetings of the Committee as necessary to carry out the above duties.
- Agreements with cooperating groups and individuals that assist in

the management of the County Forest recreation program.

205.1.2 Forest Administrator:

- Acts as the agent of the Forestry Committee and will carry out its directions, as well as execute assignments outlined in the Comprehensive Plan and Annual Work Plan, all within the framework outlined in s. 28.11, Wis. Stats.
- Prepares an agenda for and be present at all Forestry Committee meetings.
- Records Minutes of each meeting and distributes as appropriate, as well as maintains a permanent Minutes record.
- Serves as the Director of the Forestry Department in coordinating the programs of work for staff members and other matters as directed by the Committee.
- Supervises the Timber Sale Program, tree planting, site preparation, timber stand improvement, road and firebreak construction and maintenance, land acquisition, entry and withdrawal of County Forest lands, trespass investigations, long and short term planning, and oversight of recreational multi-use trail programs all within the restrictions of s. 28.11 Wis. Stats.
- Liaises with the Department of Natural Resources (DNR), colleagues, Sawyer County Land and Water Conservation Department and UW-Extension personnel to ensure sustainable forest management practices are applied in all situations related to the County Forest.

205.1.3 Land and Water Conservation Department

- Primarily responsible for the administration of County parks and dams.

- Secondary responsibilities as assigned by the Sawyer County Forestry and Land and Water Conservation Committees.

205.2 DEPARTMENT OF NATURAL RESOURCES

The role of the Department of Natural Resources (DNR) in the County Forest Program is to:

- Encourage Best Management Practices on the County Forest resources.
- Protect the public rights, benefits and investments in County Forest lands.
- Administer State compensation to the County for the public rights, benefits and privileges of the County Forest lands as required by s. 28.11(8)(b), Wis. Stats.
- Provide County Forest resource assistance consistent with those identified in Chapter 200 of the Public Forest Lands Handbook and as referenced in Chapter 900 of this plan.

205.2.1 State of Wisconsin DNR Division of Forestry

It is the function of this Office to:

- Verify and make Forest Aid payments (Variable Acreage and project loans) to the County and audit County expenditures of the Forestry Fund account pursuant to s. 28.11(8)(b), Wis. Stats.
- Verify and make acreage payments to Towns pursuant to s. 28.11(8)(a), Wis. Stats.
- Maintain and verify County Forest acreage by Township, and audit distribution of Severance share payments (s. 28.11(9)(2d), Wis. Stats.) made annually by the Counties.
- Collect Severance share payments of not less than twenty percent (20%) of the actual stumpage sales value on timber cut from the County Forest pursuant to s. 28.11(9)(a), Wis. Stats.
- Administer various aids and grants pertaining, but not limited to, the County Forest program.

- Assist with development and implementation of the County Forest Comprehensive Land Use Plan.
- Interpret and administer the laws and regulations set forth by the Wisconsin State Legislature and the Wisconsin Natural Resources Board.
- Review, approve and/or deny applications for withdrawal and entry of lands into the County Forest Law program.

205.2.2 DNR Field Office

Field representatives of the Department of Natural Resources (DNR) are available to provide technical advice and assistance to the County in natural resources management. This assistance includes, but is not limited to the following:

205.2.2.1 Forest Management

The Forester designated by the Department of Natural Resources (DNR) serves as Liaison to the Forestry Committee and provides technical assistance in managing the resources of the County Forest. The Forester's duties include the following:

- Attend all Forestry Committee meetings and any County meetings as requested.
- Assist in establishing, inspecting, and administering timber sales in cooperation with County Forest personnel.
- Process Timber Sale approvals, cutting notices and reports.
- Maintain for the Department a record of Forest management forms and maps.
- Assist in preparation of projects, plans and estimates.
- Provide assistance to the Forestry Committee in the preparation of the Annual Budget, Annual Work Plan and the County Forest Comprehensive Land Use Plan.

- Assist in County Forest timber theft and larceny investigations.
- Participate in resource planning affecting the County Forest including, but not limited to, preparation of maps from aerial photos and completion and maintenance of Compartment Reconnaissance.
- Facilitate the application of the State recon system with County Geographic Information Systems (GIS).
- Coordinate with the Forest Administrator all Department of Natural Resource (DNR) activities that occur on or affect the County Forest to promote integrated management.
- Organize and prepare minutes of Annual Partnership Meeting as required in Chapter 210-65, Public Forest Lands Handbook.

205.2.2.2 Other Department of Natural Resources (DNR)
Program Functions

- Fire Management - Maintain a system of communications, equipment, and trained personnel to prevent and suppress Forest fires, assist with prescribed burns and enforce Forest related laws.
- Forest Pest Control - Provide technical services for the prevention, detection and suppression of Forest pests in the region.
- Wildlife Management - Conduct surveys of wildlife populations, habitat and public use. Wildlife personnel use this information when providing technical assistance on long-term ecosystem planning as well as wildlife habitat management, habitat improvement and wildlife health.

- Attend Forestry Committee meetings as requested.
- Fisheries Management - Maintain the quality of the fishery resource in the waters of the Forest to produce a balanced return to the angler, consistent with sound management practices.
- Law Enforcement - Enforce State Natural Resource Laws and Regulations and assist in the enforcement of County and Federal Natural Resource Laws and Ordinances.
- Environmental Protection - Enforce and provide technical assistance in matters related to water and shoreland management, pollution detection and waste disposal.
- Endangered Resources - Provide technical expertise on rare, threatened or endangered species and natural community surveys, identification and management. Assist other Department of Natural Resource (DNR) functions and the County in identifying local and landscape level issues.
- Provide appropriate Best Management Practices training as it applies to the above-mentioned functions.

210 COOPERATION

210.1 GENERAL

The policy in dealing with other public agencies (UW-Extension, NRCA, Land and Water Conservation, research agencies, State Historical Society, etc.), non-profit organizations, private individuals and public utilities is to meet the obligations of the County to the public in accordance with s. 28.11 Wis. Stats., while maintaining the best interests of Sawyer County. Unless otherwise delegated to the Forest Administrator, all considerations for special cooperation will be brought before the Forestry Committee.

DNR Manual Code 1810.1 exempts many projects from historical/cultural review; however, Forest Certification Standards require a review on all land disturbing

projects. The Department of Natural Resources (DNR) Liaison Forester will check the historic properties map set on the Department of Natural Resources (DNR) intranet (<http://intranet.dnr.State.wi.us/int/land/facilities/facilitiesmanagement/arch/>) for all timber sales and other potentially ground disturbing projects. A contact should be made with the Department of Natural Resources (DNR) Cultural Resource Specialist if a cultural or archeological site is identified on the map set. Information on the presence or absence of archeological/cultural resources will be included in the timber sale narrative.

210.2 TRIBAL NATIONS

The County will collaborate with Tribal representatives on projects that could potentially impact Native American archeological or cultural resources. Native American tribes are encouraged to contribute to the comprehensive Forest planning process. Gathering rights for Tribal members on County Forest land is provided and detailed in Chapter 525 of this Plan.

215 FINANCIAL SUPPORT

An Annual Budget shall be prepared by the Forest Administrator in cooperation with the Forestry Committee. This budget shall contain County, State, private, non-profit and Federal funds needed to carry out the Forestry and multi-use recreational programs on the Forest.

215.1 REVENUE

The following procedure will apply to crediting income from the Forest:

215.1.1 Timber Sale Revenue

- 10% - Townships
- 35% - Forestry Department Resource Development Fund
- 55% - Sawyer County General Operating Fund

215.1.2 Parks and Recreational Revenue

All revenue, including day use and trail use fees shall be deposited in the American Birkebeiner (Birkie) Trail Usage Fund:

- Birkie Trail Use Fees (trailhead tube safes)
- Entrant fees for use of trail (approved by Forest Administrator and Forestry Committee).

215.1.3 Other County Forest Revenue

All revenue collected from fees and use permits, sale of building materials, sale of surplus materials and equipment, fire or other damage collections, or other revenue received by the Forestry Committee shall be deposited in the Forestry Department Resource Development Fund. This includes, but is not limited to:

- Christmas tree permits
- Low Use (occasional) Access permits, e.g. motorized vehicles
- Bough permits
- Recreational Camp permits
- Firewood permits
- Recreational Camp Disposal Fund fees shall be deposited in a separate non-lapsing fund.

215.2 OUTSIDE SOURCES OF REVENUE

State, Federal and other funds will be sought and utilized by the Forestry Committee to extend local funds as much as possible. After feasibility is determined, the Forestry Committee will prepare the necessary Resolutions for the County Board of Supervisors approval and will develop the necessary applications.

215.2.1 State Funds

In addition to other State funds that may subsequently become available for County use, the following State funding sources will be used where

appropriate in administration of the County Forest:

- Variable Acreage Share Loan (s. 28.11(8)(b)(1), Wis. Stats.).
The County may apply for variable acreage share loans from zero (0) to fifty cents (\$.50) per acre of regular entry County Forest land by December 31. Payment is made to the County on or before March 31st of each year and deposited in the State Forest Aid fund.
Application is made by County Board Resolution.
- Project Loans (s. 28.11(8)(b)(2), Wis. Stats.) are available to undertake acquisition and development projects of an "economically productive nature". Fish and game projects or recreation projects do not qualify. **Application is made by County Board Resolution.**
- County Forest Administrator Grant Program (s. 28.11(5)(5m), Wis. Stats.). Annual grants are available to fund up to fifty percent (50%) of the salary and benefits of a professional Forester in the position of County Forest Administrator or Assistant County Forest Administrator. Benefits may not exceed forty percent (40%) of salary. **Application is made by County Board Resolution** with payment by April 15th of each year.
- Sustainable County Forest Grants - Annual grants made for short-term projects that promote sustainable Forestry. Details are contained in NR 47.75 of the Wisconsin Administrative Code.
- County Conservation Aids (s. 23.09(12), Wis. Stats.). These funds are 50% cost-sharing aid and are to be used for projects that improve fish and wildlife resources of Sawyer County. See DNR Manual Code No. 8718 for detail.
- Wildlife Habitat Development Grant (s. 23.09(17m), Wis. Stats.). This grant, funded through the Forestry Mil Tax, provides ten cents (\$.10) per acre, per year for Wildlife Habitat Management. Advance funds shall be deposited in the County Wildlife Management Fund account. Projects must be consistent with the

scope of this plan. See Public Forest Lands Handbook 2460-5, Chapter 220 or Wildlife Management Operations Handbook, Chapter 20 for complete details.

- Snowmobile Aids (s. 23.09(25), Wis. Stats.). These are grants for approved snowmobile projects, not restricted to County Forest lands. See Department of Natural Resources (DNR) Manual Code No. 8719.51 and Snowmobile Aids Program Guide publication for details; also Chapter NR 50 of the Wisconsin Administration Code.
- Motorcycle Outdoor Recreation Program (MORP) (s. 23.09(25), Wis. Stats.). Consult Department of Natural Resources (DNR) publication guidelines for Motorcycle Recreation Program and Chapter NR 65 of the Wisconsin Administrative Code for details.
- All-Terrain Vehicle (ATV) Aids Program. Provides grants for the maintenance, acquisition, development and rehabilitation of trails and intensive use areas. See Chapter NR 64 of the Wis. Admin. Code.
- Acquisition and Development of Local Parks. Provides up to fifty percent (50%) matching grants for acquisition, development and renovation of local parks, trails and recreation areas.
- County Forest Road Aids funds are available from the Wisconsin Department of Transportation (WISDOT) for each designated mile of County Forest road. The certification is done on a bi-annual basis.

215.2.2 Federal Funds and Programs

In addition to others that may be available, the following funds and programs will be used where practical:

- Land and Water Conservation Fund Act (LAWCON). This fund provides up to fifty percent (50%) matching grants for the acquisition, development and renovation of local parks.
- Resource Conservation and Development (technical services).

- Pittman-Robertson Fund. This fund provides for Wildlife Management and Habitat Improvement.
- Sport Fish Restoration (Dingell-Johnson) Fund. This fund provides financing for Fish Management projects administered by the Department of Natural Resources (DNR).
- Small Business Administration (SBA) Tree Planting Grant Program. The SBA grant provides fifty percent (50%) cost-sharing for approved Tree Planting projects. This is administered by the Department of Natural Resources (DNR).
- National Recreational Trails Act (NRTA). This legislation provides grants to develop and maintain, renovate and acquire trails for motorized, non-motorized, or combined use.
- Federal Endangered Species Fund. This fund provides cost-sharing and grants for surveys, monitoring and management programs that conserve a threatened or endangered species. Contact the Department of Natural Resources (DNR) Bureau of Endangered Resources for information.

Other State, Federal or local grants periodically become available. Consult the Directory of State and Federal Financial Assistance Programs available from a Department of Natural Resources (DNR) Community Services Specialist, or visit the website at: www.dnr.state.wi.us/org/caer.cfa for an up-to-date list.

215.2.3 Other Funds

Other potential funding sources are groups such as Ducks Unlimited, Ruffed Grouse Society, Trout Unlimited, Whitetails Unlimited, local sportsman's clubs, service organization, garden clubs, youth groups, etc.

The Forestry Committee will consider donations, endowments and other gifts, whether real estate, equipment or cash. The County Corporation Counsel may

be consulted to ascertain whether such gifts benefit the County.

220 COUNTY RECORDS

The County Forest Administrator will keep concise and orderly records and accounts of all revenue received, expenditures incurred and accomplishments resulting from the operations of the Forestry Department. A job description, time and expense report, and training records will be kept on each employee. All salaries, authorizing employee expenses, bills for supplies and equipment, bills for other expenditures, and all credits and income are submitted to the Forestry Committee on invoices.

220.1 ACCOUNTS

All accounts and bookkeeping procedures will be handled by the Forest Administrator and office assistants or as otherwise directed by the Forestry Committee.

220.1.1 State Aid Forestry Account

Variable Acreage Share Loans (s. 28.11(8)(b)(1), Wis. Stats.), project loan funds (s. 28.11(8)(b)(2), Wis. Stats.), and Sustainable Forestry grants (NR 47.75, Wisconsin Administrative Code) that are distributed by the Department of Natural Resources (DNR) are deposited in this account. Expenditures of variable acreage share funds from this account are restricted to the purchase, development, preservation and maintenance of the County Forest. Expenditure of project loan funds is governed by the conditions of project approval. Sustainable Forestry Grants from this account must be spent specific to the approved project. Revenue received from the sale of equipment purchased with State Aid Account money must be re-deposited in the State Aid Forestry Account.

220.1.2 Account Names

	<u>Account Numbers</u>
<u>Resource Development Fund</u>	240-00-56200
Snowmobile Trail Maintenance Revenue	240-00-43582
Conservation Aids	240-00-43583
Misc. Resource Development Income	240-00-43584
ATV Trail Development/Maintenance Rev.	240-00-43586
County Forest Stumpage	100-00-46810
Conservation Organizations	240-00-56110
<u>Birkie Trail</u>	
Birkie Trail Usage Fees	239-00-43589
Birkie Trail Entrant Revenue	239-00-56615
<u>Wildlife Habitat Grant</u>	
Wildlife Habitat Grant Expenses	242-00-46814
Wildlife Habitat Grant Revenue	242-00-56122
<u>Timber Sales</u>	
County Forest Stumpage	100-00-46810
District Severance Tax	100-00-24480
Timber Sale Deposits	820-00-23902
<u>State Forest Aid Funds</u>	
State Forest Aid Account	245-00-56100
State Forest Aid Administrator Grant	245-00-43594
<u>Recreational Camp Disposal Funds</u>	822-00-23150

220.2 TIMBER SALES

220.2.1 Active Files

Active timber sales shall contain the following items:

- Timber sale Notice and Cutting Report (Form 2460-1)
- Timber sale narrative (Form 2460-1A)
- Contract and all addendums
- Timber Sale Map

- Ledger account of sale
- Timber sale inspection journal/notes
- Pertinent correspondence

220.2.2 Closed Files

Once sales have been completed and audited by the Department of Natural Resources (DNR), only the following items need to be maintained in the file as a permanent record:

- Timber Sale Notice and Cutting Report
- Contract and all addendums
- Timber Sale Map
- Pertinent correspondence

225 PERSONNEL

Under the direction of the Forestry Committee, the Forest Administrator shall have authorization to organize the workload of the Forestry Department employees and arrange for additional services. Personnel of the Forestry Department will be governed by the work policies as set forth by the County, their respective work policies, and Collective Bargaining Agreements. For further information, reference the Sawyer County Personnel-Administrative Policies.

225.1 FORESTRY COMMITTEE COUNTY FOREST STAFF

The permanent employees of the County Forest at this time are the: Forest Administrator, Assistant Forest Administrator, Forester/Recreational Trail Coordinator, a summer intern and one (1) half-time secretary-bookkeeper. Other labor is hired on a part-time basis or for training positions as needed.

225.2 HIRING PERSONNEL

All hiring of permanent personnel will be approved by the Committee, having been accounted for in the annual work plan and budget. The actual hiring of permanent personnel will be by recommendation of the Committee with the

approval of the Personnel and Finance Committees. Seasonal help and short-term labor for special projects will be recruited and hired by the Forest Administrator. Preference for seasonal help will be given to individuals in Sawyer County who are enrolled in courses of natural resources in colleges, universities or vocational training programs.

225.3 OTHER SOURCES OF LABOR

Federal and state manpower programs such as Economic Opportunity Act Programs, Community Work Experience and Wisconsin Conservation Corps (WCC) could be utilized on a project basis. The Forest Administrator will recommend to the Committee, for their approval, programs that can be utilized on the Forest.

225.4 SPECIALIZED PERSONNEL

Projects requiring expenditures for specialized skills and/or operation of specialized equipment are handled on a contract basis by the Committee if such skills and equipment are not available from the county.

225.5 TRAINING

The Forest Administrator will be responsible for scheduling and providing appropriate training to keep staff current with safety requirements, BMP's, silviculture, pesticides, new technologies, and other training appropriate to manage the Sawyer County Forest. A training record will be retained for each employee identifying the course name, content and date of attendance. Records may be subject to Department of Natural Resources (DNR) audit requirements.

230 EQUIPMENT

All equipment and supplies will be coordinated by the Forest Administrator. The Forestry Committee or the Forestry Committee Chairperson is responsible for approval of all bills before payment. Bills over two thousand (\$2,000) require County Board of Supervisors approval.

230.1 FACILITIES

Maintenance of the facilities is assigned as follows:

- Office space - provided in the Sawyer County Courthouse.
- Forestry shop building - located in the old Highway Shop Building.
- The garage is also used for construction, maintenance and repair of County Forestry equipment and facilities.
- Hatchery Creek County Park - located in the Town of Hayward, includes toilets, picnic tables and grills - Land and Water Conservation Department.
- Waysides and Day Use Areas - Nelson Lake Wayside and scattered waysides, some of which have picnic tables and toilets - Land and Water Conservation Department.
- Birkie Trail - maintained by American Birkebeiner Cross-Country Ski Foundation.

235 FOREST CERTIFICATION GROUP ADMINISTRATION

As the Certification Group Manager, the Department of Natural Resources (DNR) will be responsible for overall administration of the Certification effort in both the Sustainable Forestry Initiative (SFI) and Forest Stewardship Council (FSC) Certification groups. The Department of Natural Resources (DNR) County Forest Specialist will work in close cooperation with the Wisconsin County Forests Association in coordinating this effort. The group manager's responsibilities will include:

- Record keeping for both the SFI and FSC groups
- Coordinating communication with the Certification auditing firms
- Reporting and payment of fees
- Processing new entries and departures from the groups
- Internal compliance monitoring
- Dispute resolution

- Detail on the Certification group administration is maintained in the Public Forest Lands Handbook.

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 300

MANAGEMENT PLANNING

300	MANAGEMENT PLANNING.....	2
305	COUNTY FOREST COMPREHENSIVE LAND USE PLAN.....	2
	305.1 DEVELOPMENT OF THE PLAN.....	2
	305.1.1 Timeline.....	3
	305.2 APPROVAL OF THE PLAN.....	3
	305.3 DISTRIBUTION OF THE PLAN.....	4
	305.4 UPDATING THE PLAN.....	4
	305.4.1 Schedule for Updating.....	4
	305.5 COORDINATION WITH OTHER PLANNING EFFORTS.....	4
310	FOREST RESOURCE PLANNING.....	5
315	OUTDOOR RECREATION PLANNING.....	5
320	OTHER RESOURCE PLANNING.....	5
325	FOREST CERTIFICATION.....	5
	325.1 SAWYER COUNTY'S COMMITMENT TO SUSTAINABLE FORESTRY.....	5
	325.1.1 Sustainable Forestry Principles.....	6
	325.1.2 Responsible Practices.....	6
	325.1.3 Forest Health and Productivity.....	6
	325.1.4 Unique Sites.....	7
	325.1.5 Legal Compliance.....	7
	325.1.6 Monitoring & Continuous Improvement.....	7
	325.1.7 Sawyer County Rutting Policy.....	7
330	ORDINANCES.....	9
335	TECHNOLOGY.....	10
	335.1 GLOBAL POSITIONING SYSTEMS.....	10
	335.2 DATA RECORDERS.....	10
	335.3 COMPUTERS.....	10
	335.4 GEOGRAPHIC INFORMATION SYSTEMS.....	10
	335.5 COMPARTMENT RECONNAISSANCE.....	11
	335.6 RAVE/RAVEN.....	11

300 MANAGEMENT PLANNING

Objectives

Management planning shall be used to establish objectives, policies, procedures, rules and regulations, and to promote an efficient and orderly program of development and management of the County Forest in the interest of:

- Determining needs and priorities.
- Achieving goals set forth in the Mission Statement of this Plan.
- Satisfying the statutory requirements of s. 28.11, Wis. Stats.
- Satisfying requirements for participation in various State and Federal aid programs.
- Providing broad long-term and detailed short-term guidelines for actions.

305 COUNTY FOREST COMPREHENSIVE LAND USE PLAN

Policy

This Plan shall incorporate or reference all official County Forest policies, pertinent County regulations, planning documents and the needs and actions for the period 2006 through 2015. This Plan complements and should be encompassed within local planning efforts required under s. 66.1001, Wis. Stats.

305.1 DEVELOPMENT OF THE PLAN

S. 28.11, Wis. Stats. places the responsibility for the Plan development on the Forestry Committee with technical assistance from the Department of Natural Resources (DNR) and other agencies. The County Forest Administrator will take the lead at the Forestry Committee's request. The Department of Natural Resources (DNR), with the assistance of the County, will prepare the Environmental Assessment as required by Chapter 150 of the Wisconsin Administrative Code. During the development of the Plan and Environmental Assessment, public participation procedures should be developed and adopted to provide for broad public participation throughout the planning process. Public participation and inputs into the Plan should consider s. 28.11, Wis. Stats. that governs the County Forest Program and provides the sideboards to which this Plan must adhere.

Sawyer County's public participation process includes the following:

305.1.1 Timeline

Approved 12/2/04

TIMELINE
SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

DATE	ACTION
October 2004	Chapters 100, 200 and 300 - review completed
November 2004	Chapters 400 and 500 - review completed
December 2004	Chapters 600, 700, 800, 900, 1000, 2000, 3000 to be reviewed
January 2005	Forestry Committee reviews first complete draft of Plan - makes additional revisions
February 2005	Send first draft of Plan to County Board for review and comment
March/April 2005	Prepare second draft version incorporating comments from County Board review
May 2005	Full County Board approves second draft version
June/July 2005	DNR reviews second draft version; makes recommendations to County Board
August 2005	Public information meetings held; incorporate appropriate revisions to Plan draft version
September 2005	Prepare final plan version for County Board review
October 2005	County Board and DNR reviews final plan version and approves
November/December 2005	Forestry Committee begins publication and implementation process
January 1, 2006	2006-2020 Comprehensive Land Use Plan implementation

305.2 APPROVAL OF THE PLAN

Public comments received by the Forestry Committee shall be given consideration in developing the final Plan draft. Following the public comment period and assessment by the Department of Natural Resources (DNR), the County will consider inclusion of comments received on the Plan and Assessment. A final version of the Plan will be prepared. The Forestry Committee will then present the Plan to the Sawyer County Board of Supervisors for their review and approval. Following County Board approval, the Plan will then be forwarded to the State of Wisconsin DNR Division of Forestry Field Office DNR Liaison Forester. Approval of the Plan by the Department of Natural Resources (DNR) is required by s. 28.11(5)(a), Wis. Stats.

305.3 DISTRIBUTION OF THE PLAN

Each member of the Sawyer County Board of Supervisors will receive a copy of the Plan at the time of initial review and approval. Subsequently, updated official copies will be maintained for those regularly involved in the County Forest Program.

Official copies and amendments will be held by the following:

- Sawyer County Forest Administrator
- Department of Natural Resources - Liaison and Division of Forestry (5 copies)
- Executive Secretary - Wisconsin County Forests Association.

Additional copies of the Plan will be provided to the DNR Regional Forestry Supervisor, Area Forestry Supervisor and local Wildlife Biologist. The Plan is also available for reference, review and comments on the Sawyer County Forestry website: sawycountygov.org, go to County Departments, Forestry and you will find the link.

305.4 UPDATING THE PLAN

Necessary changes in policy and procedure will be incorporated into the Plan by amendment as required. Amendments to the Plan will require approval by both the County Board of Supervisors and the Department of Natural Resources as stated in s. 28.11(5)(a), Wis. Stats. The Annual Work Plan and Budget (Chapter 2000) and the Annual Accomplishment Report (Chapter 3000) are appended to the Plan and do not require Department of Natural Resource (DNR) approval.

305.4.1 Schedule for Updating

By June 30th of each year, the Forest Administrator will develop and distribute copies of the following to each official copyholder of the County Forest Plan:

- Approved amendments
- Annual Accomplishment Report
- Current Annual Work Plan and budget

305.5 COORDINATION WITH OTHER PLANNING EFFORTS

The development and any future amendments to this Plan will include considerations, and if warranted, participation in other planning efforts. It is expected that these other plans will also, in turn, consider and mesh their efforts with the County Forest Plan.

310 FOREST RESOURCE PLANNING

The Forestry Committee will support and utilize the procedures as set forth in the Department of Natural Resources (DNR) Public Forest Lands Handbook No. 2460.5 and Forest Aesthetic and Silviculture Handbook No. 2431.5. The Department of Natural Resource (DNR) Forester and the Forest Administrator will be responsible for the completion and maintenance of the Compartment Reconnaissance System and will assist in interpretation of the data to be used in planning and scheduling purposes.

Forest management plans are made by qualified, professional staff employed by Sawyer County or the Department of Natural Resources (DNR) who are trained in silvicultural principles and apply economic, biological, and environmental considerations in the planning process. Forest management decisions are made utilizing the most recent resource materials including the Forest habitat type classification, soil surveys, and Forestry's Best Management Practices for water quality guidelines.

315 OUTDOOR RECREATION PLANNING

The responsibility for all County Forest recreation planning on the County Forest will rest with the Forestry Committee.

320 OTHER RESOURCE PLANNING

Additional data necessary to make management decisions on the County Forest will be sought from agencies or individuals best equipped to provide that service. Refer to Chapter 800 for information on integrating outside expertise into management planning.

325 FOREST CERTIFICATION

The Forest Products industry is increasingly requiring their suppliers to verify that the raw materials being supplied have originated from well-managed Forest lands. Third-party certification of Forest lands is becoming the norm for objectively evaluating the sustainable management of Forest lands. To that end, Sawyer County will commit to the Sustainable Forestry Initiative (SFI) and/or Forest Stewardship Council (FSC) in the management of the Sawyer County Forest. These certification standards fit within the framework of the County Forest Law program (s. 28.11, Wis. Stats.).

325.1 SAWYER COUNTY'S COMMITMENT TO SUSTAINABLE FORESTRY

Our County Forests provide a vital contribution to the State and the world by providing economic, environmental and social benefits important to our quality of

life. Sawyer County believes that accomplishing such sustainable Forestry requires a commitment and partnership from all the groups and individuals that benefit from these public lands.

Within the scope of the Wisconsin County Forest Law and the County Forest Comprehensive Land Use Plan, Sawyer County will implement Forestry practices that promote Forest sustainability and multiple use of the Forest. In the management of the Forest included will be the sustainable harvest of Forest products, the protection of special sites, wildlife, plants, water quality and aesthetics.

All Forestland owners have a responsibility to provide sound Forest stewardship. Sawyer County will work in cooperation with the Department of Natural Resources (DNR) and other natural resources groups/agencies in providing sustainable Forestry information to those landowners and individuals impacting Forest sustainability in Wisconsin. We will support research efforts to improve the health, productivity, and management of Forestlands both internally and through cooperative efforts. In managing the Sawyer County Forest, a spectrum of Forestry practices will be employed to achieve our sustainable Forestry objective. Both intensive and more extensive Forest management techniques will be used to provide for wildlife, Forest products, recreation, aesthetics, water quality, aesthetics and ecosystem maintenance. In keeping with this responsibility, Sawyer County is committed to the following:

325.1.1 Sustainable Forestry Principles

To practice sustainable Forestry to meet the present needs of society without sacrificing the ability of future generations to meet their anticipated needs. In doing so, Sawyer County will integrate the reforestation, managing, growing and harvesting of trees for Forest products with the conservation of air and water quality, soil, ecosystem diversity, wildlife, recreation and aesthetics.

325.1.2 Responsible Practices

To employ practices that are economically, environmentally and socially responsible in the management of the Sawyer County Forest and to also encourage other Forest owners to do the same.

325.1.3 Forest Health and Productivity

To work cooperatively with the Department of Natural Resources (DNR) and other agencies in protecting our Forests from pests, diseases, wildfire and other damaging agents in order to improve long-term productivity and Forest health.

325.1.4 Unique Sites

To manage areas of special biological, geographical, cultural or historical significance in such a way as to preserve their unique qualities.

325.1.5 Legal Compliance

To comply with applicable local, State and Federal Laws and Regulations in the management of the Sawyer County Forest.

325.1.6 Monitoring and Continuous Improvement

To continually seek improvement in the management of the Sawyer County Forest and to monitor, assess and report performance towards the objective of Sustainable Forestry.

325.1.7 Sawyer County Rutting Policy

Rutting Standards

Soil compaction and rutting can reduce the productivity of a site, disrupt surface drainage and infiltration, and contribute to erosion and sedimentation. Compaction occurs over broad areas, but does not necessarily result in visible depressions. Ruts are depressions, such as furrows or trenches, created by breaking through the forest floor.

Guidelines

Existing roads systems will be utilized when environmentally appropriate.

The Forest Administrator will have final approval in designating the location of roads, landings, and skid trails, and may consult with other County and DNR staff.

Wisconsin Forestry Best Management Practices for Water Quality (BMP's) and this Plan will be followed during all phases of the timber sale to prevent or reduce erosion and sedimentation to surface waters and wetlands.

Expanding the footprint of roads, landings, and skid trails to maneuver around wet or muddy areas that develop during use is prohibited unless authorized by the Forest Administrator.

It is expected that appropriate measures will be taken to prevent excessive rutting. If excessive rutting occurs, forestry operations will be suspended.

The Forest Administrator may modify standards in this policy if modifications provide equal or greater soil and water protection. Depending on site conditions, rutting standards may need to be more restrictive or flexible. Detail of and justifications for modifications must be documented in the timber sale narrative and timber sale field notes.

This policy applies to forestry operations. Problems occurring from recreational use or operations shall be handled as prescribed in appropriate handbooks or guidance.

Standards

Forest Roads

Rutting is prohibited on forest roads within a riparian management zone (RMZ). New forest roads are to be located outside of RMZs, except at stream crossings.

In wetlands, a rut on a forest road may not exceed 50 feet in length with depths of 6 inches or greater.

In uplands, a rut on a forest road may not result in channelized flow into a wetland or water body.

Other ruts are acceptable provided it is shown that they can and will be repaired prior to final sale close out.

Landings

Landings are prohibited in wetlands unless the timber sale is located in a large wetland complex without suitable upland landing sites. Wetland landings may only be used during frozen ground conditions. Details of and justifications for modifications must be documented.

In uplands, a rut on a landing may not result in channelized flow into a wetland or water body.

Other ruts are acceptable provided it is shown that they can and will be repaired prior to final sale closeout.

Skid Trails

Ruts with depths of 6 inches or greater may not exceed a total of 25 feet in any 100 feet.

Total rut length on skid trails may not exceed 10% of the total length of skid trails.

General Harvest Area

The rutted area for an acre of general harvest area may not exceed 5% (six inches or deeper).

The average rutted area per acre may not exceed 2% of the total harvest area.

Measurements

Forest Road Rut Length is determined by measuring the length of ruts with depths 6 inches or greater.

Skid Trail Rut Length is determined by measuring the total length of ruts and dividing by the total length of skid trails. The length of rut made by each wheel or track is measured separately.

General Harvest Area Rutted Area is determined by measuring the length and width, in feet, of ruts, greater than 6 inches in depth, in an acre of harvest to determine square feet of rutted area. This total is divided by 43560.

330 ORDINANCES

The following ordinances will be considered in all planning. Refer to Chapter 900 for full text of these ordinances or the designated department for full text:

- Forestry ordinance
- Zoning ordinance - see Zoning Department
- Floodplain - Shoreland Zoning ordinance
- Non-Metallic Mining ordinance - see Zoning Department
- Land ordinance
- ATV ordinance
- Sign ordinance

335 TECHNOLOGY

Use of present day technology has become an important facet of County Forest management. Computers and operating systems have increased the ability to analyze and store data. The increased ability to analyze and evaluate the Forest has improved planning and management of the Forest. Electronic communication is now essential. The following are technologies available, and in use, on the Sawyer County Forest:

335.1 GLOBAL POSITIONING SYSTEMS (GPS)

A global positioning system (GPS) is a system of electronic surveying technology utilizing satellites to determine location. GPS is based on satellite ranging. That means that a position on earth is calculated by measuring the distance from a group of satellites to that position. The basic components needed for this system are a transmitter (located in the satellites), a receiver (at the point to be identified) and a computer and software to do the actual calculations. This technology is invaluable for mapping, acreage determination and land control efforts. Sub-meter accuracy is available with some of the survey grade units. Hand-held units have also proven beneficial for sale mapping and road layouts.

335.2 DATA RECORDERS

The traditional data recording method is the paper and pencil system. But there are other tools that have been proven useful. Tape recorders and hand-held computers are becoming commonplace. Sawyer County will continue to test new types of data recorders for usability in the field and the office.

335.3 COMPUTERS

Computers are a common fixture in nearly all offices. The different types of software currently being used include: word processing, databases, spread sheets, mapping and Geographic Information Systems (GIS).

335.4 GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Geographic Information Systems (GIS) are particularly well-suited for Natural Resources Management. A GIS interrelates spatial information, e.g. maps with tabular data, reconnaissance information, ownership, name and address. It is a system through which managers can ask "what if?" and have the computer system represent the answer in the form of the best organized spatial output, a map. By using such a system, managers can look at the timing and spacing of timber sales, layout aesthetic zones, buffer strips, calculate acreage and update reconnaissance files in an efficient manner. Interrelating recon data with the GIS

through a Recon ArcView Editor (RAVE) program has provided State-of-the-art mapping and data analysis in many Counties. A GIS can do in a few hours what often was impossible or took months to complete.

335.5 COMPARTMENT RECONNAISSANCE (RECON)

Recon is another tool in the assessment of geographical, structural and compositional attributes of the Forest resources. This information is collected and computerized in tabular format through the Department of Natural Resources (DNR). The recon system has historically been the backbone of land management activities. The tabular information is linked to spatial information on hand drawn maps or computerized maps found in the GIS. Basic resource information is collected, stored and updated systematically and continuously. The database is used to analyze existing resources, evaluate management alternatives and assist in this development and implementation of management plans. Recon is

300-8

one tool used to assess Forest resource information at the property level. This information will provide a data layer that can be used for regional analysis.

335.6 RAVE/RAVEN (Recon ArcView Editor)

RAVE and RAVEN are computer programs that link the tabular data in the Recon system with the spatial data available through a GIS system. They are ArcView (GIS software) custom extensions that allow the user to easily edit Forest timber type and stand-level features (polygons), while at the same time updating tabular records.

DRAFT

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 400

FOREST OWNERSHIP

400	COUNTY FOREST BLOCKING.....	2
405	FOREST BLOCKING BOUNDARIES.....	2
410	LAND ACQUISITION.....	2
	410.1 METHODS OF ACQUISITION.....	3
	410.2 PAYMENT OR FINANCING OF LAND ACQUISITIONS/ EASEMENTS.....	3
415	ENTRY OF LANDS.....	3
	415.1 TIME OF ENTRY.....	4
420	WITHDRAWAL OF LANDS FROM COUNTY FOREST LAW.....	4
	420.1 WITHDRAWAL PROCEDURE.....	4
	420.2 PUBLIC HEARINGS.....	7
	420.3 COUNTY'S RIGHT TO APPEAL.....	8
425	LAND SURVEYING.....	9
	425.1 LEGAL SURVEYING.....	9
	425.2 LOCATION OF LINES BY OTHER THAN LEGAL SURVEY.....	10
	425.3 PRESERVATION OF LANDMARKS, MONUMENTS AND DESTRUCTION OF MONUMENTS.....	10

400 COUNTY FOREST BLOCKING

Objectives

The objective of County Forest Blocking is to:

- Provide for the most efficient administration of the Forest by consolidating and blocking lands within established County Forest boundaries through purchase or trade as provided in s. 28.11(3)(c), Wis. Stats. (for full text see Chapter 900, and to enter lands so acquired as County Forest, pursuant to s. 28.11(4)(b), Wis. Stats.
- Provide additional public benefits through the acquisition of unique or special areas that will be entered under s. 28.11(4)(c), Wis. Stats. special use classification.
- Facilitate adequate land control on the County Forest by undertaking establishment and perpetuation of survey corners.

405 FOREST BLOCKING BOUNDARIES

The County Forest blocking boundaries are established by the Forestry Committee and by subsequent approval of the Sawyer County Board of Supervisors and the Department of Natural Resources (DNR). A map of the official boundaries is found in Chapter 900.

410 LAND ACQUISITION

Lands within the County Forest blocking boundaries shall be recommended to the County Board of Supervisors for acquisition and entry into the County Forest Program as they become available. Lands outside the blocking boundaries that possess special or unique values may be recommended to the County Board of Supervisors for acquisition and entry into the County Forest Program "Special Use" category. Prioritizing the value of a parcel to the County Forest shall be made jointly by the Forestry Committee and County Forest Administrator.

410.1 METHODS OF ACQUISITION

Acquisition or easements may be by outright purchase or trade based on competent appraisal of the value or values involved, or by gift, bequest or action to foreclose tax liens. The Administrator will be the agent of the Forestry Committee in making first contact with potential sellers and in carrying on acquisition activities. Options or offers for purchase of lands or easements must contain a contingency clause which states that the offer is contingent upon the approval of the Forestry Committee and the full Sawyer County Board of Supervisors.

410.2 PAYMENT OR FINANCING OF LAND ACQUISITIONS/EASEMENTS

Payment or financing of land acquisitions or easements either within the Forest boundaries or special use lands outside the boundary, will come from the Resource Development Fund, grants, State Forestry loans, gifts, or through the process of advanced County budgeting. Other funding methods may be utilized with the approval of the Forestry Committee and the County Board of Supervisors. A portion of the proceeds from the sale of any County Forest lands will be deposited in the Forestry Resource Development Fund and be available for any future County Forest land or easement purchases. The remainder of the proceeds will be deposited in the County's General Fund.

415 ENTRY OF LANDS

Lands to be entered under the regular classification of the County Forest Law must be suitable for Forestry purposes and be within the County Forest boundary. Lands designated for classification as County Forest - Special Use need not be contained within the County Forest boundary nor suitable or utilized for Forestry purposes but they must be suitable for scenic, outdoor recreation, public hunting, fishing, water conservation or other multiple-use purposes.

415.1 TIME OF ENTRY

Application for entry of newly acquired lands under the County Forest Law will be made as soon as possible. Applications for entry will be prepared with the assistance of the Department of Natural Resources Liaison Forester, if requested. The County Clerk will secure the signatures of the proper County officials, and the County Clerk will then verify County ownership and transmit the application to the Department of Natural Resources, P.O. Box 7921, Madison, WI, 53707-7921, marked attention, "County Forest Specialist", with copies delivered to the County Forest Administrator and Department of Natural Resources Liaison Forester.

420 WITHDRAWAL OF LANDS FROM COUNTY FOREST LAW

Applications for the purchase of these lands by the private sector will be discouraged by the Forestry Committee. Lands within the County Forest boundary will not normally be considered for withdrawal from the County Forest Law unless, in the opinion of the Forestry Committee and County Board of Supervisors, the land will be put to better and higher use and will benefit people of the County and State to a greater extent. The withdrawal procedure outlined in Section 420.1 will be employed for all proposed withdrawals. The legal means by which Counties may apply for withdrawal of lands from County Forest status is provided by s. 28.11, Wis. Stats. In addition, the Department of Natural Resources (DNR) Public Lands Handbook also contains details on the application procedures for withdrawal.

420.1 WITHDRAWAL PROCEDURE

The purpose of this procedure is to provide general information in formulating and processing applications for withdrawal of County Forest lands under s. 28.11, Wis. Stats. and Chapter NR 48, Wisconsin Administrative Code. The legal means by which Counties may apply for withdrawal of lands from the County Forest is provided by s. 28.11(11)(a), Wis. Stats. This section states, in

part: "The County Board of Supervisors shall first refer the resolution to the County Forestry Committee which shall consult with an authorized representative of the Department of Natural Resources (DNR) in formulating its withdrawal proposal." Section 28.11(11)(a), Wis. Stats. also states: "The County Board of Supervisors shall not take final action thereon until ninety (90) days after such referral, or until the report thereon of the Forestry Committee has been filed with the County Board of Supervisors.

In general, the procedure is as follows, the:

- Forestry Committee receives the request and/or application for withdrawal. The County Forest Administrator notifies the Forestry Committee Chairperson, who schedules a meeting for consideration of the withdrawal.
- County Forest Administrator gives notice to the Department of Natural Resources (DNR) Liaison Forester of the Forestry Committee meeting at which the withdrawal will be discussed. The next meeting shall be noticed. The notice shall include the legal description of the property and proposed use of the land. **NOTE:** In the event a withdrawal exchange is involved, it is very important that the County postpones final financial negotiations with the owner of the land involved in the exchange until the Department of Natural Resources (DNR) has established the minimum values of the land as required in s. 28.11(11)(a), Wis. Stats. To protect the County's interest, the necessary preliminary negotiations should also be made conditional upon approval of the withdrawal by both the County Board of Supervisors and Department of Natural Resources (DNR) as provided by statutes.
- Forestry Committee then consults with the Regional Forestry Leader of the Department of Natural Resources (DNR).
- Forestry Committee, at a meeting held to evaluate the proposal, either:
 - a) Undertakes further study of the proposal, and then if deemed necessary, holds a public information meeting; or

- b) Rejects applicant's request for withdrawal; or
 - c) Prepares a resolution for County Board of Supervisors action recommending approval of application.
- County Board of Supervisors, upon receipt of the Forestry Committee's recommendation, or ninety (90) days after referral to the Forestry Committee, whichever is first, acts on the resolution to approve, disapprove or modify the withdrawal application and refers it back to the Forestry Committee for further consideration. Final approval for withdrawal is given by two-thirds vote (2/3) of the County Board of Supervisors membership. This authorizes and directs the County Clerk and Forest Administrator to prepare and submit the County Forest Withdrawal Application (Form 2453-3) for withdrawal to the appropriate Department of Natural Resources (DNR) Regional Forester or designee.
 - Department of Natural Resources (DNR) Regional Forestry Leader acknowledges receipt of the application to the County Clerk with copies to the County Forestry Committee, County Forest Administrator, the Liaison Forester's supervisor and Bureau of Forest Management at the DNR Division of Forestry-Madison. The Regional Forestry Leader requests the County to provide adequate details for processing the application. The request must be sent to the County within sixty (60) days as identified in NR 48.03(2), Wis. Admin. Code. The Department of Natural Resources (DNR) Liaison Forester contacts the Regional Environmental Impact Coordinator to determine if an Environmental Assessment (EA) or Environmental Impact Statement (EIS), or if an Environmental Impact Report should be requested from the County. If required, environmental documents are prepared. If an EIS is required, the Bureau of Integrated Science Services is notified to proceed in accordance with M.C. 1610.1. Public notices are coordinated and environmental proposals certified in compliance with the Wisconsin Environmental Policy Act (WEPA). A copy

of the County application, approved EA/EIS, if required, and the regional recommendation are transmitted to the County Forest Specialist in the Bureau of Forest Management, Division of Forestry. If a withdrawal is denied, the County Board of Supervisors, by resolution of two-thirds (2/3) of its membership, may appeal to the Review Committee appointed, as provided in s. 28.11(11), Wis. Stats.

420.2 PUBLIC HEARINGS

The Department of Natural Resources (DNR) may conduct an investigatory Public Hearing, if considered advisable. The Department must hold a public hearing on the application, if the applying County requests one in writing. The format of the Public Hearing is quite different depending on which agency requests the hearing.

- If the County requests the Hearing, it must be a written request. When the Department of Natural Resources (DNR) receives the written request from the County, then the hearing is considered a "Contested Case" Hearing as defined in s. 227.01(3), Wis. Stats. and Chapter NR 2, Wis. Admin. Code. An Administrative Law Judge will be appointed, and upon completion of the hearing, the Administrative Law Judge normally makes and issues a decision approving or rejecting the withdrawal application.
- If the Department of Natural Resources (DNR) conducts an "Investigatory Hearing", the format of the Hearing is less formal and normally facilitated by a Department of Natural Resources (DNR) employee. Following an Investigatory Hearing (or if neither agency requests a hearing), then the following procedure follows:

Regional Forestry Leader or Designee

Prepares a "DRAFT" decision including Findings of Fact, Conclusions of Law and Order and Notification of Appeal Rights and sends the draft to the Public Lands/County Forest Specialist. The draft shall, at the

minimum, cover the items identified in Chapter NR 48.04, Wis. Admin. Code.

Division of Forestry

Review and modifies draft documents as necessary. Upon completion of Department investigation of the withdrawal application, prepares a final draft decision including Findings of Fact, Conclusions of Law and Order and Notification of Appeal Rights, for the Administration, Division of Forestry. **NOTE:** The "**draft decision**" prepared by the Department of Natural Resources is **not a public record**. It may not be released to the public upon request.

Administrator, Division of Forestry

Issues the final decision on the withdrawal application.

Division of Forestry

Keeps the Division Administrator's and Secretary's Office informed of all developments in the appeal process.

420.3 COUNTY'S RIGHT TO APPEAL

Section 28.11(11)(a), Wis. Stats. provides the County the right to appeal withdrawal applications that are denied either by the Department of Natural Resources (DNR) or an Administrative Law Judge. If a withdrawal decision is denied, the County Board, by resolution of two-thirds (2/3) majority of its membership may appeal to a review committee which involves a Board of five (5) members consisting of:

- One (1) member appointed by the County.
- One (1) member appointed by the Department of Natural Resources (DNR),

- One (1) member appointed by the Governor who is from another County that has land enrolled under the County Forest Law and who shall serve as Chairperson of the Committee.
- One (1) member appointed by the University of Wisconsin-Extension College of Agriculture and Life Sciences, and
- One (1) member to be selected by a unanimous vote of the appointed members, or if the appointed members fail to achieve unanimity, the final member is selected by the Governor.

425 LAND SURVEYING

Sawyer County Forest boundaries with adjacent landowners are typically established by either: 1) legal survey by Registered Surveyors (uncommon); or, 2) County Forestry personnel who use existing monuments to approximate the location of property lines to establish cutting boundaries. **Establishing cutting boundaries by Forestry personnel is less time consuming and less expensive than a legal survey, but exposes the County to more risk by accidental timber trespass.**

Survey corner monumentation is important for avoiding the problems of trespass both by and against the County, for facilitating the settlement of those cases which would occur, and aiding in the proper transfer of the property. Many areas of the County Forest have very poor survey monumentation. Developing a plan for re-monumenting old survey markers including identifying needs, prioritizing needs, and developing cost and time line analysis should be considered by the Forestry Committee. The plan should be implemented within the 2006-2015 Comprehensive Land Use Plan period.

425.1 LEGAL SURVEYING

All surveying shall be under the supervision of a Registered Surveyor. Property boundaries shared with owners of developed property are of highest importance.

When the office of the County Surveyor is not staffed, the Forestry Committee will comply with the provisions of Chapter 59, Wis. Stats. by hiring Registered Surveyors to perform the necessary surveying of property lines. Section corners, one-quarter corners and forty corners (1/16 corners) will be re-established where needed and Certified Land Corner Restoration forms filled out in duplicate as time permits, under the direction of a Registered Land Surveyor.

425.2 LOCATION OF LINES BY OTHER THAN LEGAL SURVEY

Forestry personnel who are not Registered Surveyors may, with all possible prudence, establish lines for Forest management purposes including those necessary for ordinary management activities such as Timber Sales and road/trail locations using available equipment including, but not limited to, aerial photos, quadrangles, County Surveyor's records and known corners. In the absence of known corners, lines abutting other ownership may be established by mutual and written agreement of adjoining landowners to avert trespass claims.

425.3 MONUMENT PRESERVATION OF LANDMARKS, MONUMENTS AND CORNER POSTS

Section 59.74, Wis. Stats., provides:

- Penalties for destruction of landmarks, monuments and corner posts established by government survey, the County Surveyor, or a Surveyor of public record.
- A procedure for notification of intent to destroy such surveying evidence and referencing prior to destruction.
- The assignment of enforcement responsibility to the Department of Natural Resources (DNR).

All personnel with land management responsibilities are directed to:

- Make a reasonable search for the above mentioned surveying evidence prior to implementing any soil moving or cover type manipulation projects,

including Timber Sales, that could result in covering, destruction or removal of such evidence.

In the event such evidence is found:

- If practical, re-design the project so that the evidence will not be disturbed, or if destruction is unavoidable, notify the County Surveyor at least thirty (30) days prior to destruction giving the legal description or other obliteration. If the County Surveyor does not re-reference the evidence within thirty (30) days notice, the Project Supervisor will determine if the evidence has future value to the State and, if it does, will arrange for a re-reference by a Registered Surveyor or Engineer.
- If reasonable search fails to uncover survey evidence in the suspected vicinity, conduct an additional search if he/she sees fit.
- In order to further reduce the possibility of inadvertent destruction of invaluable survey evidence:
 - Each Forester with County Forest responsibilities should discuss with County Administrators the need for including adequate protective clauses in easements, rights-of-way, Timber Sale contracts, and other agreements that might result in destruction of monuments.
 - Personnel advising landowners regarding Forestry or other land management practices should alert such owners to possible monument destruction that may be caused by them.
 - Any instances of potential or accomplished obliteration of survey monumentation discovered in the course of field operations should be brought to the County Surveyor's attention.

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 500

LAND MANAGEMENT AND USE

500	LAND USE	5
	500.1 OBJECTIVES.....	5
505	SILVICULTURAL PRACTICES	5
	505.1 EVEN-AGED MANAGEMENT.....	5
	505.2 UNEVEN-AGED MANAGEMENT.....	5
	505.3 GREEN TREE RETENTION GUIDELINES (GTR).....	5
	505.3.1 Reserve Trees.....	5
	505.3.1.1 Typical Characteristics of Desirable Individual Reserve Trees.....	6
	505.3.1.2 Poor Candidates for Individual Reserve Trees	6
	505.3.2 Benefits of Reserve Tree Retention.....	6
	505.3.2.1 Specific Potential Benefits.....	6
	505.3.3 Potential Costs of Reserve Tree Retention.....	8
	505.3.3.1 Specific Potential Costs.....	8
	505.3.4 Considerations for Reserve Tree Retention.....	8
	505.3.4.1 Shading.....	8
	505.3.4.2 Insect and Disease Issues.....	9
	505.3.4.2.1 Examples of Insect and Disease.....	10
	505.3.5 Representation.....	10
	505.3.5.1 Retention in Aggregated Patches.....	11
	505.3.5.2 Retention in Evenly Dispersed Trees.....	11
	505.3.5.3 Retention of Irregularly Dispersed Trees.....	11
	505.3.5.4 General Recommended Strategy.....	12
	Figure 24-7 Reserve Trees Retained in Patches.....	13
	Figure 24-8 Reserve Trees Retained as a Group....	13
	Figure 24-9 Reserve Trees Retained Irregularly.....	14
	505.3.6 Recommendations for Retention in Managed Stands.	14
	505.3.6.1 Even-aged Rotations.....	14
	505.3.6.2 Even-aged Intermediate Treatments.....	15
	505.3.6.3 Uneven-aged Systems.....	15
	505.3.7 Applying Retention Recommendations Considerations	15
	505.4 TIMBER SALES.....	16
	505.4.1 Direct Timber Sales.....	17

505.4.1.1	County and State Responsibilities for Field Preparation of Timber Sales.....	17
505.4.2	Advertising for Bids.....	18
505.4.3	Prospectus.....	18
505.4.4	Method of Bidding and Bid Opening.....	18
505.4.5	Awarding Sales.....	19
505.4.6	Sales Contracts.....	20
505.4.7	Timber Sale Performance Bond.....	20
505.4.8	Contract Provisions.....	20
505.4.8(a)	Slash Disposal, Landings and Decking.....	21
505.4.8(b)	Duration and Extension of Contracts.....	21
505.4.8(c)	Contract Violations.....	22
505.4.9	Timber Sale Restrictions.....	24
505.4.10	Special Forest Product Contracts.....	24
505.4.10(a)	Policy for Town Road Right-of-Way Timber Management.....	24
505.4.11	Timber Sale Roads.....	25
505.4.12	Administering and Supervising Sales.....	25
505.4.13	Forest Products Accountability.....	26
505.4.13(a)	Scaling Merchantability.....	26
505.4.13(b)	Utilization Standards.....	27
505.4.13(c)	Methods of Accountability.....	27
505.4.14	Special Forest Product Permits.....	28
510.5	FOREST REGENERATION: NATURAL AND ARTIFICIAL.....	28
505.5.1	Natural Regeneration.....	28
505.5.2	Artificial Regeneration.....	28
505.5.3	Costs/Benefits of Natural versus Artificial Regeneration.....	28
505.5.4	Tools for Achieving Forest Regeneration.....	29
505.5.4.1	Removal of Non-Merchantable Residual Trees.....	29
505.5.4.2	Prescribed Burning for Natural Regeneration.....	29
505.5.4.3	Mechanical Site Preparation.....	30
505.5.4.4	Chemical Site Preparation.....	30
505.5.4.5	Other Site Preparation Methods.....	31
505.5.4.6	Tree Planting/Seeding.....	31
510.6	TIMBER STAND IMPROVEMENT.....	31
505.6.1	Release.....	31
505.6.2	Non-Commercial Thinning.....	31
505.6.3	Pruning.....	31
510	RECREATION.....	32
510.1	RECREATIONAL AND TRAIL STEWARD SERVICE AGREEMENTS.....	32

510.2	RECREATIONAL USE PERMITS.....	33
510.2.1	Recreational Cabin Permits.....	33
510.2.2	Administration.....	33
510.2.3	Other.....	34
510.3	EXTENSIVE RECREATIONAL USE OF THE FOREST.....	35
510.3.1	Hunting.....	35
510.3.2	Fishing.....	35
510.3.3	Picnicking.....	35
510.3.4	Camping.....	35
510.4	INTENSIVE RECREATION AREAS.....	35
510.4.1	Campgrounds.....	35
510.4.2	Developed Picnic Areas.....	36
510.4.3	Swimming Areas.....	36
510.4.4	Boat Landings.....	36
510.4.5	Shooting Ranges.....	36
510.5	MANAGED TRAIL AREAS.....	36
510.5.1	Motorized Trail Opportunities.....	37
510.5.2	Non-Motorized Trail Opportunities.....	37
510.6	RECREATION OPPORTUNITIES FOR PEOPLE WITH DISABILITIES.....	38
515	SPECIAL USES.....	38
515.1	SAND AND GRAVEL.....	38
515.2	EXPLORATION, PROSPECTING AND MINING.....	39
515.3	SANITARY LANDFILLS.....	39
515.4	MILITARY MANEUVERS.....	39
515.5	PUBLIC UTILITIES.....	40
515.6	PRIVATE UTILITY SERVICE LINES.....	40
515.7	CELLULAR COMMUNICATION TOWERS.....	40
515.8	OTHER.....	41
520	AESTHETIC FOREST MANAGEMENT.....	41
520.1	CLASS A ZONES.....	42
520.1.1	Permitted Uses - Zone A.....	43
520.1.2	Restrictions - Zone A.....	43
520.2	CLASS B ZONES.....	43
520.2.1	Permitted Uses - Zone B.....	44
520.2.2	Restrictions - Zone B.....	44
520.3	CLASS C ZONES.....	44
520.3.1	Permitted Uses - Zone C.....	45
520.3.2	Restrictions - Zone C.....	45
525	TREATY RIGHTS: GATHERING MISCELLANEOUS FOREST PRODUCTS.....	45
530	HIGH CONSERVATION VALUE FORESTS/AREAS (HCVF) and EXCEPTIONAL RESOURCES.....	45
530.1	AREAS HIGH IN LOCALLY, REGIONALLY OR NATIONALLY SIGNIFICANT BIODIVERSITY VALUES.....	46

530.1.1	Wisconsin State Natural Areas.....	46
530.1.2	Species Concentration Areas.....	46
530.1.3	Other.....	47
530.1.3.1	Camp Smith - Deadman Lakes Natural Pine Area.....	47
530.1.3.2	Log Creek Drumlins.....	47
530.2	RARE, THREATENED, OR ENDANGERED ECOSYSTEMS.....	47
530.2.1	Relict Old Growth Stands.....	47
530.2.2	Rare, Threatened and Endangered Species Habitat..	48
530.2.3	Geological Features of Significance.....	48
530.2.4	Important Bird Area.....	48
530.3	CULTURALLY SIGNIFICANT SITES.....	48
530.3.1	Burial Mounds/Cemeteries.....	49
530.3.2	Logging Camps.....	49
530.3.3	Landmarks.....	49
530.3.4	Other.....	49
530.4	LOCALLY SIGNIFICANT SITES.....	49
530.4.1	Areas Requiring Protection Not Included Above.....	49

500 LAND USE

500.1 OBJECTIVES

The objectives of the Land Use Section are to:

- Identify policies and procedures employed to effectively manage, utilize and sustain the renewable resources of the County Forest.
- Identify regulation management activities, land uses and special resource areas.

505 SILVICULTURAL PRACTICES

Silviculture is the practice of controlling Forest composition, structure, and growth to maintain and/or enhance the Forest's utility for any purpose. These practices are based on research and general silviculture knowledge of the species being managed. The goal is to encourage vigor within all developmental stages of Forest stands. The application of silviculture to a diverse Forest needs a unified, systematic approach. The Department of Natural Resources (DNR) Public Forest Lands Handbook 2460.5, and the Department of Natural Resources Silvicultural and Forest Aesthetics Handbook 2431.5 will be used as guidelines for sustainable forest management practices on the County Forest.

505.1 EVEN-AGED MANAGEMENT

An even-aged Forest is one composed of trees having relatively small differences in age (typically less than ten (10) years in age). Harvesting practices include clear cutting, shelterwood cutting and seed-tree cutting. The objective of even-age harvests is to regenerate a new Forest stand.

505.2 UNEVEN-AGED MANAGEMENT

An uneven-aged Forest stand is composed of trees that differ markedly in age. The typical cutting practice is selective cutting, where individual trees are removed from the stand. Regeneration is continually occurring after harvest occurs within the stand.

505.3 GREEN TREE RETENTION GUIDELINES (GTR)

505.3.1 Reserve Trees

Reserve trees are living trees, ≥ 5 inches dbh, retained after the regeneration period under even-aged or two-aged silvicultural systems. They are retained well beyond stand rotation, and for purposes other than regeneration. They may be harvested eventually or retained to complete their natural lifespan (becoming a

snag and then coarse woody debris). Reserve trees can be dispersed uniformly or irregularly, as single trees or aggregated groups or patches, or any mixture thereof. Synonyms include standards, legacy trees, and green tree retention.

The characteristics of desirable reserve trees are highly variable and depend on the intended benefits, the species present, stand condition, and site. Desired compositional and structural attributes may be present when trees are selected and stands are rotated, or additional time may be required for development.

505.3.1.1 Typical Characteristics of Desirable Individual Reserve Trees (either scattered or within patches) include:

- Large size (tree height, diameter, crown dimensions) for the species and site.
 - If large trees are lacking, then potential future large trees can be selected.
- Older trees with large size and rough bark.
- A mix of vigorous and decadent trees.
 - Vigorous trees of long-lived species can enable long-term retention and potentially yield a variety of benefits.
 - Decadent trees can provide current and future cavity trees, as well as future snags and down coarse woody debris.
- A mix of species, including locally uncommon species and mast trees.
 - The development and maintenance of large structures (vigorous trees, cavity trees, snags, down woody debris) and species diversity is typically encouraged.

505.3.1.2 Poor candidates for individual reserve trees

- Relatively small (height, diameter, crown), suppressed to intermediate trees.
- Relatively young trees within the stand.
 - These smaller, younger trees are retained in reserve groups and patches along with larger, older trees.

Exceptions to these typically desirable and generally poor reserve tree characteristics will occur.

505.3.2 Benefits of Reserve Tree Retention

Silvicultural practices are designed to manipulate vegetation to achieve management objectives. At its foundation, silviculture is based on understanding and working with ecological processes. Silvicultural practices that more closely emulate natural disturbance and stand development processes are more likely to

sustain a wide array of forest benefits. Most natural disturbance regimes and events retain compositional and structural legacies in heterogeneous patterns and create ecological complexity. Silvicultural practices that develop and maintain reserve trees in managed stands can enable the promotion of ecological complexity – composition, structure, and pattern.

The retention of reserve trees can provide a “lifeboat” function that contributes to the conservation of biological diversity (see preceding section). These structures facilitate the perpetuation of some biota (plant and animal species and genotypes) on site. They also perpetuate habitat for re-colonization and occupation. They can improve landscape connectivity, facilitating the movement of some organisms. Reserve trees influence reorganization and recovery processes in post disturbance ecosystems; they can sustain functional roles and modify the post-disturbance environment.

The actual benefits achieved through the retention of reserve trees can be variable, depending on such factors as landscape composition and structure, stand composition and structure, site, retention design, and management objectives.

505.3.2.1 Specific potential benefits include:

- Timber Production
 - Reserve high quality trees for future harvest
 - Perpetuation of tree species diversity
- Wildlife and Plant Habitat (Biodiversity)
 - Cover
 - Cavity (den) and nest trees
 - Display locations
 - Food (foraging, hunting)
 - Future snags and down woody debris (coarse and fine)
 - Habitat diversity
 - Protect special habitat
 - Travel corridors
- Aesthetics
 - Limit line of vision
 - Break up “clearcut” look
 - Retain visually unique trees
 - Provide diversity in future stand
- Water and Soil Quality
 - Reduce run-off
 - Reduce erosion
 - Maintain water and nutrient cycles
- Miscellaneous
 - Buffer adjacent stands
 - Protect cultural resources

- Landmarks, such as marker trees and witness trees

505.3.3 Potential Costs of Reserve Tree Retention

The retention of reserve trees in actively managed stands can provide ecological benefits desired by landowners and society. However, there are also costs or trade-offs. The primary potential cost is reduced timber yield at the stand-level. Also, retention can result in less available habitat for some wildlife species, particularly those that prefer open, treeless habitat. However, impacts on long-term forest ecosystem sustainability and productivity are uncertain; current understanding suggests that the maintenance of ecological complexity will more likely sustain long-term productivity.

505.3.3.1 Specific Potential Costs

- Potential additional operational costs to manage reserve tree retention
- Potential for reduced timber growth rates maintained by larger, older trees
- Potential for reduced short-term stand-level timber yields by foregoing harvest of some trees
- Potential for epicormic branching
- Potential for stem and crown damage during stand harvest
- Potential for crown dieback and mortality following harvest
- Potential for windthrow, particularly on wet or shallow soils, or for shallow rooted species
- Potential damage to younger stand if reserve trees are harvested during mid-rotation
- Reduced growth rates of regeneration occurring beneath reserve trees
- Potential sites for pathogen breeding and maintenance
- Potential for reduced habitat for or increased predation of certain wildlife species

505.3.4 Considerations for Reserve Tree Retention

505.3.4.1 Shading

Reserve overstory trees will shade portions of a newly developing stand. Increased numbers of dispersed reserve trees and trees with larger and denser crowns will cause more shading. Furthermore, reserve tree crowns can expand over time, increasing shading effects. Shading by reserve trees potentially can reduce growth within portions of newly developing established even-aged stands. The point at which growth reductions become significant depends on a variety of factors, including: stand

management objectives (for reserve trees and young trees), growth rates and potential development of reserve trees, growth rates and shade tolerance of species comprising the new stand, site quality, understory competition, and potential damaging agents. In general, to promote optimum growth of established even-aged stands of reproduction, (nearly) full sunlight is preferred. Under even-aged management systems, when objectives include the retention of reserve trees beyond the regeneration establishment phase, crown cover of <20% generally (for most species and conditions) will not significantly reduce vigor, growth, and development of most of the developing stand. If reserve trees are dispersed and expected to survive and grow, crown cover will increase over time; 15% crown cover is a generally recommended maximum for dispersed retention at final rotation. If reserve trees are aggregated, then shading impacts will be reduced; total crown cover retained could be greater, and will depend on stand management objectives.

Excessive shading may also be a concern when regenerating shade intolerant species in small stands or in narrowly linear stands, surrounded by relatively mature forest. In such cases, it may be necessary to retain fewer reserve trees. Alternatively, there may be opportunities to redesign stand boundaries creating a larger stand with increased opportunities for internal tree retention.

Reserve tree retention is a generally recommended silvicultural practice for stands ≥ 10 acres. It is encouraged in smaller stands, but operational, shading, and other biological issues may limit application.

505.3.4.2 Insect and disease issues

Insect and disease and potential impacts on tree health should be another consideration in reserve tree selection and design. Regeneration methods are designed to foster the vigor of the regenerating stand. Although the imminent mortality of some reserve trees may be desirable or acceptable, typically some vigorous trees will be retained with the expectation of continued growth and survival (perhaps for a long time). When regenerating a stand and retaining reserve trees, potential risks to tree health should be evaluated, and methods implemented to reduce risks while achieving stand management objectives. In most cases, well designed regeneration and retention strategies can minimize risks; however, stand and site conditions may limit options in some cases. Refer to the cover type chapters in this handbook and forest pest management guidelines to appropriately consider and address insect and disease risks when selecting and designing regeneration methods and reserve tree retention for a specific stand and site.

505.3.4.2.1 Insect and disease

Two examples of how insect and disease considerations can influence reserve tree selection and design:

- Red pine: Retaining red pine reserve trees when regenerating a new red pine stand may significantly increase the risk of Sirococcus and Diplodia incidence within the young stand. This risk is highly variable geographically; where experience has shown the risk to be significant, then retaining red pine reserve trees over red pine regeneration would be poor silviculture. In such cases, retain other species (e.g. oak) as reserve trees if available; if not available, then it may not be possible to retain reserve trees as generally recommended, but consider including representation of other species as part of stand regeneration to provide increased options for future managers. Red pine can be an excellent reserve tree when regenerating other species (e.g. aspen or oak).
- Jack Pine: In general, retaining jack pine reserve trees when regenerating a new jack pine stand is not recommended, because of the risk of budworm outbreaks. When regenerating jack pine, other species (e.g. oak) should be retained as reserve trees if available. Jack pine can be retained as a reserve tree when regenerating other species.

505.3.5 Representation

Representation of reserve trees can range from none to many. If silviculture is to simulate, to some extent, natural disturbance processes, then most actively managed stands should include some level of structural retention. To accomplish general sustainable forestry goals that include multiple stand management objectives, recommended representation could typically range from 3-15% of stand area or crown cover. In some stands, particularly intensively managed single objective stands (e.g. maximize short-term economic returns, maximize pulp production, or maximize populations of wildlife species that prefer completely open, treeless habitat), landowners may choose to not retain reserve trees. In some stands, with appropriate species and site characteristics, where the optimization of tree vigor and timber quantity and quality is a minor concern, adaptive silvicultural practices that retain 20-60% cover could be considered by the landowner. It is recommended that sound reasons and expected impacts be documented when the decision is to retain reserve trees at less than or greater than the recommended level of 3-15% of stand area or crown cover.

Distribution of reserve trees can be evenly or irregularly dispersed individuals, groups, and patches.

505.3.5.1 Retention in aggregated patches provides the most benefits, including:

- patches of habitat that maintain forest floor, understory plants, and vertical structure within the patch, and increase compositional and structural diversity,
- more heterogeneity across the stand,
- less damage to retained trees during harvesting operations, and
- less impact on regeneration in stand matrix.

Patch retention should consider retention of large trees, cavity trees, and snags within the patches. Reserve patches can be thinned during the even-aged rotational harvest of the matrix; however, retention of unthinned patches potentially provides the greatest benefit. Patches can be located to complement other management objectives or respond to stand conditions; for example, patches can be located in riparian management zones, to provide connectivity between stands, and to protect sensitive sites (e.g. cliff faces and vernal pools) or endangered resources. Patches should be >0.1 acres and generally <2.0 acres, but can be larger; patches, particularly large ones, should be documented as retention patches.

505.3.5.2 Retention of evenly dispersed individual trees provides unique benefits, including:

- retention of comparatively more large trees, and
- wide distribution of structural benefits (large trees, snags, and coarse woody debris) and seed sources.

505.3.5.3 Retention of irregularly dispersed individual trees and small groups

Retention of irregularly dispersed individual trees and small groups provides another strategy; this can be particularly useful to develop feathered edges to stands and reduce abrupt transitions and edge effects.

505.3.5.4 General Recommended Strategy

The general recommended strategy is to retain irregularly distributed patches along with scattered groups and individuals.

Area (acres)	Diameter (feet)	Square (feet)
0.1	74	66 x 66
0.25	118	104 x 104
0.5	167	148 x 148
0.75	204	181 x 181
1.0	236	209 x 209
1.5	288	256 x 256
2.0	333	295 x 295

Stand representation and spatial distribution patterns of reserve trees can be highly variable. The goal of heterogeneity of conditions indicates a wide array of retention strategies. Retention design, including amount to retain, species, and distribution, can enable the production of increased benefits and minimize potential costs. Criteria to consider when determining desired representation and distribution include: landowner goals and stand management objectives, current and desired stand and community condition, characteristics of current and desired plant and animal species, potential damaging agents, site, and landscape characteristics. Detailed landscape analysis and planning that clearly addresses the sustainable allocation of resources, including the production of timber and the conservation of biodiversity, can improve upon stand-based management guidelines (such as those offered herein).

Figure 24-7. Reserve trees retained in patches.



Photo by Jeff Martin,
J-Mar Photography

Figures 24-8. Reserve trees retained as a group.



Photo by Joe Kovach

Figures 24-9. Reserve trees retained irregularly as individuals.



Photo by Joe Kovach

505.3.6 Recommendations for Retention in Managed Stands: Reserve Trees, Mast Trees, Cavity Trees, and Snags

Sustainable forest management is implemented within a framework defined by landowner goals and objectives, ecosystem condition and potential, and sustainable silvicultural systems and practices. Forests are cultivated to provide a variety of socio-economic and ecological benefits. Sustainable forest management integrates multiple management goals and objectives into most silvicultural systems and the management of most stands and landscapes.

Most stands that are actively managed include timber production as a management goal (often in concert with other goals). Tree retention typically focuses on crop tree selection and regeneration methods. To satisfy multiple objectives and provide multiple benefits, retain additional trees to achieve non-timber management objectives. Integrate the following recommendations for tree and snag retention into the management of most forest stands:

505.3.6.1 Even-aged rotations

- Retain ≥ 3 (if available), preferably large, snags per acre.
- Retain reserve trees and/or patches at 3-15% crown cover or stand area, including large vigorous trees, mast trees, and cavity trees. Reserve tree retention is a generally recommended silvicultural

practice for stands ≥ 10 acres. It is encouraged in smaller stands, but operational, shading, and other biological issues may limit application.

505.3.6.2 Even-aged intermediate treatments

- Retain ≥ 3 (if available), preferably large, snags per acre.
- Retain ≥ 3 (if available), preferably large, cavity trees per acre.
- Retain ≥ 3 (if available), preferably large, mast trees per acre.
- If previously established, manage reserve trees and patches. Management may include timber harvesting or passive retention. Consider retaining ≥ 3 trees per acre to develop into large, old trees and to complete their natural lifespan. These trees may also satisfy cavity and mast tree recommendations. These trees will often become large snags and coarse woody debris.

505.3.6.3 Uneven-aged systems

- Retain ≥ 3 (if available), preferably large, snags per acre.
- Retain ≥ 3 (if available), preferably large, cavity trees per acre.
- Retain ≥ 3 (if available), preferably large, mast trees per acre.
- Consider retaining ≥ 3 trees per acre to develop into large, old trees and to complete their natural lifespan. These trees may also satisfy cavity and mast tree recommendations. These trees will often become large snags and coarse woody debris.

In cases where these recommendations for retention are not applied, then sound reasons and expected impacts of deviation should be documented.

505.3.7 When applying retention recommendations, be sure to consider:

- Retention will occur at the “Harvest Unit” level. Harvest Unit is defined as the stands within a timber sale. RMZ or Z prefix stands occurring within or adjacent to the Harvest Unit can provide retention opportunities. Retention will be encouraged in stands 10 acres in size or less that are managed as even-aged, but will not be required.
- Individual trees can provide multiple benefits and fulfill the intent of more than one of the above recommendations. For example, three large oak trees with cavities could satisfy the mast tree and cavity tree recommendations, as well as the large, old tree consideration.
- Retention of both vigorous and decadent trees will provide an array of benefits.

- In general, species diversity is encouraged when selecting trees to retain.
- Large trees and snags are >12 inches dbh, and preferably >18 inches dbh.
- Trees retained can be scattered uniformly throughout a stand or irregularly dispersed, as single trees, groups, and patches. The general recommended strategy is to retain irregularly distributed patches along with scattered groups and individuals.
- Retention in aggregated patches generally provides the most benefits for wildlife and biodiversity. Also, patches retained can satisfy multiple benefits; for example, at stand rotation, an internal or adjacent unharvested buffer along a stream (RMZ) could provide a portion of reserve tree retention as well as satisfy BMP (water quality) recommendations. Patches should be >0.1 acres and generally <2.0 acres, but can be larger; reserve tree patches, particularly large ones, should be documented as retention patches.
- Harvesting of reserve trees may occur in the future or may be foregone to achieve other benefits. Retain reserve trees for at least one-half the minimum rotation age of the new stand (e.g. retain reserve trees at least 20-25 years if regenerating aspen). Consider retaining some trees to develop into large, old trees and to complete their natural lifespan; these trees will often become large cavity trees, snags, and coarse woody debris.
- Retain as many snags as possible. Retention of snag diversity (species and size) can potentially provide the greatest array of benefits. Snags that are determined to be a threat to human safety can be cut and retained on site as coarse woody debris.
- Clearly designate, in writing and/or by marking, which trees should be retained prior to any cutting operations

505.4 TIMBER SALES

Regulated cutting of timber is essential to the goals and objectives of this Plan. Timber harvesting will be conducted on an annual basis in an effort to achieve a sustainable harvest level on the Forest. Harvest areas will be distributed in the Forest to accommodate such needs as biodiversity, wildlife, aesthetics, watershed protection, recreation and other biological and/or social needs. The Department of Natural Resources (DNR) Forest Reconnaissance printout will be used as the basis for planning and scheduling harvests. All Timber Sales will be established, administered and reported in accordance with the Department of Natural Resources (DNR) Timber Sale Handbook 2461. All Timber Sales on the Forest are to be advertised for public bidding, with the exception of:

- Miscellaneous, salvage, or emergency type Timber Sales allowed by the Department of Natural Resources (DNR) Timber Sale Handbook and further defined in this Plan (505.3.1). These may be sold direct without advertising.
- All Timber Sales remaining unsold after being advertised for two (2) successive bid openings may be sold direct at not less than the appraised value (see Department of Natural Resources (DNR) Timber Sale Handbook 2461).

505.4.1 Direct Timber Sales

All Timber Sales on the Forest must be advertised for public bidding (as described in Section 505.3) unless they meet the requirements for direct sales. Timber Sales meeting any of the following criteria may be sold directly, without advertising:

- Small Timber Sales with an estimated value of three thousand dollars (\$3,000.00) or less.
- Timber Sales that would qualify under a salvage (fire, wind, insects, disease, hail, snow, or ice) provision of s. 28.11(6)(c), Wis. Stats.

505.4.1.1 County and State Responsibilities for Field Preparation of Timber Sales

The County and the Department of Natural Resources (DNR) will cooperate to locate, designate and prepare harvest areas for Timber Sales. The Forest Administrator and Department of Natural Resources (DNR) Liaison Forester shall jointly be responsible to see that the fieldwork on Timber Sales is accomplished. Best Management Practices for Water Quality will be incorporated where applicable.

Form 2460 is the approval process for Timber Sales on the County Forest. The Forester responsible for each Timber Sale shall complete Form 2460 for each tract. Each tract should be reviewed by no less than the Department of Natural Resources (DNR) Liaison Forester, Forest Administrator and Assistant Forest Administrator before the Timber Sale is approved for advertising. The following information is required on the Timber Sale map narrative:

- Tract number
- Tract map
- Legal description

- Wood to be harvested and estimated volume
- Special contract provisions and cutting prescriptions
- Management considerations
- Any other pertinent environmental issues

505.4.2 Advertising for Bids

After fieldwork is completed and necessary reports prepared for Department of Natural Resources (DNR) approval, the Forest Administrator shall prepare a Timber Sale prospectus and make it available to interested loggers. Timber Sale advertisements, at a minimum, will be by Classified ad in a newspaper having general circulation in the County (s. 28.11(6)(b), Wis. Stats.). Ads shall be run once prior to bid opening.

Sealed bid Timber Sales will generally be offered three (3) times per year - April, August and December. Special bid openings may be offered by the Sawyer County Forestry Committee.

505.4.3 Prospectus

The following information will be made available to prospective bidders:

- Species to be harvested and estimated volume by product
- Minimum acceptable bid on the total sale
- Maps of Timber Sale areas and cutting prescriptions
- Special contract provisions
- Procedures for bidding
- Bid forms to include system for whole tree utilization
- Timber Sale Bid Bond and Advance Stumpage Payment Schedule
- Policy for extensions and amendments
- Timber harvesting procedures along Birkie Trail and other Recreational Trails

505.4.4 Method of Bidding and Bid Opening

A sealed envelope showing tract number and marked "sealed bid" shall be submitted on County Forest bid forms by the bidder for each tract bid on, and shall contain:

- The bid price per cord or per thousand (1,000) board feet for each species offered and the total for each species bid. The total value of the timber sale bid shall be indicated on both scaled and lump sum bids. The total bid value must meet or exceed the advertised sale minimum.

- A minimum of ten percent (10%) of the bid value of each tract must accompany the bid as a Bid Bond, payable to the Sawyer County Treasurer. This Bond may be in the form of a Check, Surety Bond, Letter of Credit or Cash.
- Bids will be opened by the Forest Administrator and two (2) other witnesses in advance of the Forestry Committee meeting. A Bid Summary will be submitted to the Forestry Committee for review and approval.

505.4.5 Awarding Sales

The procedure for awarding Timber Sales is as follows:

- Bid Summaries will be reviewed at a meeting of the Forestry Committee.
- The high bidder is normally awarded the Timber Sale contract; however, the Forestry Committee reserves the right to reject any or all bids, and accept the bid offer most advantageous to the County. Grounds for rejecting bids may include, but are not limited to:
 - Non-compliance with County Forest contract requirements
 - Delinquent financial obligations
 - Unsatisfactory past performance - per recommendation of the Forest Administrator
 - Inability to demonstrate financial or professional capability.

Evaluation criteria on timber sales will be price and documented ability to satisfactorily complete the contract. Factors to be assessed may include proposed equipment and operation, references, proof of financial stability, past performance and documented training completed. Sawyer County will require training of logging contractors. The award of contract to the successful bidder shall be based upon the bid determined most advantageous to the County.

- Tie bids on total volume of sale may be settled by the toss of a coin if both parties are agreeable; otherwise, the bids on that tract will be rejected and the sale re-advertised.
- Timber Sales remaining unsold after being advertised for two (2) successive bid openings may be sold direct at not less than the appraised value even through their estimated value exceeds three thousand dollars (\$3,000) - see Department of Natural Resources Timber Sale Handbook 2461, Chapter 52.

505.4.6 Sales Contracts

- Contracts will be prepared with copies provided to the logger and the Department of Natural Resources (DNR), with the original filed in the Forest Administrator's office.
- Contracts are to be signed by the successful bidder within thirty (30) days of the sale or before cutting begins, whichever occurs first, with payment being made according to the County Timber Sale Bond and Advance Stumpage Payment Schedule. Failure to sign the contract within thirty (30) days could cause forfeiture of the Performance Bond.
- The Forest Administrator will review the contract in full with the logger before cutting is started (Pre-Sale meeting). An onsite meeting shall be held between the County representative and the contractor prior to operation on the Timber Sale. A Pre-Sale Inspection Form shall be signed by the Forest Administrator and logger/contractor.
- Operation on an adjacent sale contract (on county and/or private lands) by the same contractor will not be allowed without approval of the County Forestry Committee or County Forest Administrator.

505.4.7 Timber Sale Performance Bond

- An Irrevocable Letter of Credit or Surety Bond issued by a bank which is a member of the Federal Reserve System or insured by the Federal Deposit Insurance Corporation may be used in lieu of cash as a Performance Bond on sales. The Letter of Credit or Surety Bond must be in effect for a period time equal to the term of the contract, plus a sufficient time to allow for possible extension(s) and for closeout of the contract after cutting is completed.
- The Bid Bond may be transferred to the Performance Bond.
- Timber Sale closeout: At the completion of all Timber Sales, an inspection of the Timber Sale will be conducted to check for compliance to the contract and to insure all obligations of contractor have been met before releasing the Performance Bond.

505.4.8 Contract Provisions

All Timber Sale Contracts will be on the form approved by the Forestry Committee and all provisions therein shall apply. A copy of the Timber Sale map will be attached and become a part of the contract.

505.4.8(a) Slash Disposal, Landings and Decking

The objective is to control conditions that affect the following: fire, insects, disease, aesthetics, regeneration, wetlands, wildlife and public interest. Each Timber Sale Contract will have specific slash disposal instructions and aesthetic safeguards and will include without limit the following:

- All slash must be reduced to a maximum specified height as specified by aesthetic zone management: no trees, tops or limbs shall be leaning or hanging in standing timber.
- No machinery may be operated in lakes or streams with the exception of County approved permitted crossings.
- No slash may be deposited in lakes or streams pursuant to s. 26.12(6), Wis. Stats.
- No slash, logging debris or machinery operation outside the sale boundary unless approved by the County representative.
- Landings and decks are not allowed within one hundred (100) feet from the centerline of any public road except by proper authorization from the County representative and the local authority (Township, County, etc.).
- Any debris or material not natural to the land shall be properly disposed of as it is generated.
- All slash disposal, road or landing areas, and other woods operations shall be conducted in compliance with State regulations, local shoreland and wetland zoning restrictions, and Wisconsin's Best Management Practices for Water Quality.
- Any logging generated debris (oil, cables, cans, tires, etc.) shall not be disposed of on-site but shall be disposed of properly.
- Spills of petroleum or other hazardous fluids must be reported according to State law to the proper authorities.

505.4.8(b) Duration and Extension of Contracts

- All contracts will normally be issued annually, unless otherwise stated in the advertisement and/or in the contract. Contracts will be dated to expire on the first of the month of the sale. Exceptions may be made in cases of extenuating circumstances.

- At the discretion of the Forestry Committee, a one (1) year extension, if deemed necessary by the seller, may be granted at the same stumpage rate as the original contract. A second extension will have a ten percent (10%) increase in stumpage rates. A third extension will have a fifteen percent (15%) increase in stumpage rates. Any further extensions will have an additional ten percent (10%) added to the previous extension rates and other extensions will have a ten percent (10%) increase in stumpage value.
- The maximum time duration of a Timber Sale Contract, including extensions shall be four (4) years.
- Extensions beyond this period of time shall be considered by the Forestry Committee only in the event of special justification. Special stumpage rate adjustments may be made.
- If purchasers do not wish to have contracts renewed or extended, the County reserves the right to charge double stumpage for any timber left in the sale area. The Performance Bond will be forfeited for non-completion and the sale may be re-advertised.
- The contractor may request a contract release due to severe physical or financial disability. The Forestry Committee shall determine whether or not a release shall be granted and may withhold all or a portion of the bond deposit for damages.

505.4.8(c) Contract Violations

Contract violation issues are the responsibility of the Forestry Committee. Field enforcement of Timber Sale Contracts will be the responsibility of the Forest Administrator, or designee employing the following procedure:

- The Forest Administrator, or designee, will attempt to resolve violations by verbal and written contact with the contractor. All violations shall have written documentation that will be placed in the Timber Sale folder.

Any instances of wood being removed from the sale without being scaled or a haul ticket deposited in the ticket box shall be reported to the Forestry Committee and be considered a contract violation.

- The Forest Administrator, or designee, may immediately suspend logging operations when necessary.

- The suspension will be followed by written notice to the contractor stating the nature of the violation and informing them of Forestry Committee action taken or pending. The contractor may request an opportunity for a hearing during the next Forestry Committee meeting.
- The Forestry Committee, in consultation with legal counsel, may consider, but is not limited to the following remedies:
 - Terminate contract
 - Charge double stumpage
 - Charge for actual damage
 - Assess damages
 - Suspend contract
 - Retain all deposits
 - Foreclose on cut products on sale
 - Refer to legal counsel for disposition
 - Refer to District Attorney for prosecution
 - Seek civil damages beyond deposits
- Suspension of operations will remain in effect until receipt of written notice from the Forestry Committee or Forest Administrator.
- At the Forestry Committee's direction, failure to comply with Timber Sale Contracts or Forestry Committee decisions may result in the contractor becoming a non-qualifying and ineligible bidder in the future.
- At the Forestry Committee's direction, the contractor may be denied further purchase of County Timber Sales for a period of time of not more than four (4) years.
- All deposits may be retained and Forest products on sale areas may be seized and sold by the County.

Theft

Removal of wood from the sale area without being scaled by County Forest personnel or without correct use of the County lock box system is deemed as harvested without the owners consent or permission and subjects the Purchaser to civil and/or criminal penalties as provided for under sections 26.03, 26.06, and 943.20 of the Wis. Stats. Such unauthorized removal of Forest products shall cause cancellation of the contract and forfeiture of the Performance Bond or deposit and all monies paid to the County.

505.4.9 Timber Sale Restrictions

Timber sale restrictions may be implemented for the follow reasons:

- To minimize resource damage, the types of logging equipment, methods, and times of operation used on sale areas will be restricted by the County.
- Special restrictions may be required in accordance with the Aesthetic Policy set forth in Section 520.
- Seasonal restrictions may be applied to protect roads, minimize recreation use conflicts, benefit wildlife management, avoid endangered resources concerns, minimize insect and disease problems, or to assist in fire protection.

505.4.10 Special Forest Product Contracts

Stumpage for fuelwood, Christmas trees, boughs, posts and poles and other special Forest products for re-sale will be handled as a regular timber sale.

505.4.10(a) Policy for Town Road Right-of-Way Timber Management

The Sawyer County Forestry Committee and Forestry Department recognizes the importance of maintaining public roadways and road Right-Of-Ways. The policy of the Sawyer County Forestry Committee shall be to create and maintain a cooperative relationship with townships regarding the harvest/clearing of County owned timber from easement Right-Of-Ways adjacent to Sawyer County owned lands.

Sawyer County's preference will be to harvest timber in these Right-Of-Ways through the Forestry Department's normal timber sale establishment process. The Forestry Department will contact Townships on an annual basis to request a simple plan of their Right-Of-Way clearing needs and then sell and remove merchantable timber in an appropriate time frame depending on road construction schedules.

In most all cases, the Sawyer County Forest owns the timber growing in the Right-Of-Way adjacent to County Forest land. All timber cut on the County Forest land belongs to the County. Any removal of wood products from these areas without the County's permission is considered theft. The involved Township or responsible party(ies) may be subject to damages pursuant to State

Statute 26.09. (At a minimum, penalties for timber theft include double stumpage charges).

Background: Right-Of-Ways and Timber Ownership

Most Townships do not own the Right-of-Ways adjacent to Town roads. Landowners adjacent to public roadways own the timber growing on the Right-Of-Way unless the Right-Of-Way was purchased by the unit of government that built or maintains the roadway. Township road Right-Of-Ways are rarely purchased, and in most cases are easements. The easement normally gives the townships the right to clear the road Right-Of-Ways within thirty-three (33) feet from the centerline of the road without additional notice to the landowner, but the townships have no legal ownership to the timber that is cut on easement Right-Of-Ways. Removal of timber from an easement Right-Of-Way without the permission of the landowner is timber theft and subjects violating parties to penalties as described in State Statutes.

505.4.11 Timber Sale Roads

- The contractor will be responsible for securing legal access to sale areas across private and/or other non-County ownership.
- The contractor will be responsible for securing permission to conduct logging activities within Town, County or State road right-of-ways (e.g. decking, skidding, etc.).
- Forestry personnel will approve the proposed layout and location of all roads and make other necessary special provisions within the sale contract.
- Skidding, decking, or other logging activity is not allowed on County Forest roads or ditches unless approved by the County Forest Administrator. These areas will be kept free from logging debris. County Forest access roads will be maintained by the logger and be left in good as original condition at the close of the sale. Roads will be inspected by County personnel to insure minimal resource damage.
- A timber sale purchaser may request permission to gate a timber sale access road while cutting the sale. The Forest Administrator may grant a gate permit to prohibit only motorized traffic.
- The Timber Sale Map will indicate if the access road is to be bermed by the logger upon completion of the sale.

505.4.12 Administering and Supervising Sales

Supervision of sales will be the responsibility of the Forest Administrator. However, routine sale inspections may also be performed by Department

of Natural Resources (DNR) personnel, and other County Forest employees. All sales shall be inspected during the course of operations and when operations are complete before closing the contract.

Observations of possible contract non-compliance will be reported to the Forest Administrator who will take appropriate action and make notation in the Timber Sale record. The Timber Sale will not be closed or the Performance monies released until a final field check has been performed by the Forest Administrator and notification has been given to the Department of Natural Resources (DNR) that the timber sale is completed and contract compliance has been determined to be satisfactory. The bond will be released thirty (30) days after the Department of Natural Resources (DNR) has been notified unless a problem surfaces.

- A weekly Timber Sale Activity Status Report will be created by the Forestry Department and distributed to members of the Forestry Committee and Forestry Staff.
- A monthly report Loggers Report and summary of products harvested and monthly income will be created by the Forestry Department and distributed to members of the Forestry Committee and Forestry Staff.

505.4.13 Forest Products Accountability

The Forest Administrator shall be responsible for accounting for Forest products cut from timber sales and for collecting payment due. The Department of Natural Resources (DNR) Forester is responsible to the State for verifying all scale on cutting reports.

505.4.13(a) Scaling Merchantability

- Sawlogs will be scaled by the Scribner Decimal C log rule. A log is defined as ten inch (10") diameter small end inside bark (d.i.b.) at eight (8) feet in length for softwood and hardwood. Merchantability will be considered as fifty percent (50%) sound wood and reasonably straight.
- The standard unit of measure for cordwood is measuring four feet by four feet by one hundred inches (4'x4'x100") for unpeeled wood. Peeled wood will be converted to the standard cord by adding twelve and one-half percent (12.5%) for sap-peeled and twenty-five percent (25%) for machine-peeled wood to the gross volume measured. A pulpwood tree contains at least one (1) 100" stick, to a minimum top diameter or as defined in the contract.
- Department of Natural Resources (DNR) Timber Sale

Handbook 2461 will be used as a guide in determining the conversion rates for posts, poles, bolts, chips, weight-scaled wood or other types of Forest products.

505.4.13(b) Utilization Standards

Utilization standards will be specified on individual contracts to provide maximum utilization of all merchantable timber and will be based on the scaling standards in 505.3.13(a).

505.4.13(c) Methods of Accountability

Wood harvested from the sale area must be accounted for and payment made in accordance with existing policy and procedure. One or more of the following may be used on an individual sale:

- The ticket system utilizes serialized three-part tickets. A ticket shall be deposited in the ticket box for all Forest products hauled from the sale. Wood that has been pre-scaled prior to hauling shall have a ticket filled out and noted as scaled before depositing in the ticket box.
 - All tickets will have a blank for contract job number which the hauler would fill in.
 - The first ticket is to be deposited in the ticket box assigned to the sale.
 - The middle ticket must accompany each load of wood to the mill and be turned in to the scaler at the mill.
 - The third ticket is for the contractor and is optional.
 - Mill scale will be accepted for pulpwood volume determination. The Sale Administrator may also scale pulpwood on the landing as needed or when determined practical. All pulpwood will be marked with paint on landing to indicate that the wood has been scaled and volume determined. All sawtimber will be scaled and painted by County personnel or designated representative before being hauled from sale area.
 - Lump sum sales may be utilized and divided into cutting units when practical. Payment for a cutting unit must be received in full before any cutting begins in that unit.

505.4.14 Special Forest Product Permits

- A written permit for making fuelwood for personal use must be purchased for a specific area designated on the permit.
- A written permit for cutting boughs for personal use will be issued for a specific area designated on the permit. Bough payment rate will be set by the Forestry Committee.
- Written permits may be issued for special Forest products for community or personal use, with fees established by the Forestry Committee.
- An annual summary report of cut products sold by permit will be filed with the Department of Natural Resources (DNR) using the Timber Sale Notice and Cutting Report Form 2460-1.

505.5 FOREST REGENERATION: NATURAL AND ARTIFICIAL

Sawyer County will utilize natural and artificial regeneration techniques as part of its' program to ensure the sustainability of its' Timber Management Program.

505.5.1 Natural Regeneration

Natural Regeneration refers to reforestation of harvested or non-forested areas that occurs by natural means such as by tree seed dispersal by nearby trees or seedlings that grow naturally from the stumps or the root system of harvested or windblown trees.

505.5.2 Artificial Regeneration

Artificial regeneration refers to reforestation of harvested or non-forested areas that occurs by man's methods such as tree planting or direct seeding with seed collected from other sites. Artificial regeneration normally involves some type of site preparation and frequently requires follow-up practices to ensure the survival of desirable seedlings.

505.5.3 Costs/Benefits of Natural versus Artificial Regeneration

Natural regeneration is nearly always less expensive and less time consuming than artificial regeneration.

Artificial regeneration is more expensive and time consuming because it often involves labor or equipment intensive activities to prepare sites, plant or seed sites, and release desirable seedlings from competing vegetation. The two (2) most common reasons why artificial regeneration is utilized despite its' higher costs are: 1) some sites are slow to, will not, or unreliably regenerate following harvest, wind storm, Forest fire, or

abandonment of agricultural fields; and, 2) it is possible to control or influence the future composition of the trees on a site for a number of reasons including higher growth rate and productivity of certain species, aesthetic or recreational purposes, or a higher economic rate of return. Natural regeneration will be encouraged where feasible, through the use of silvicultural methods or cultural activities including, but not limited to, clearcuts, shelterwood cuts, strip cuts, scarification, prescribed burning, select cuts and seed tree cuts. These practices can be enhanced by additional treatments, including the cutting of non-merchantable trees following harvest, by scarification before or after cutting for natural seeding, by prescribed burning, and by chemical treatment. These treatments can be used alone or in combination, depending on the needs of the site.

When natural tree regeneration fails, or when tree species present do not coincide with management objectives for the site, then artificial means shall be employed to establish a more appropriate stand of trees. The establishment of a Forest stand through artificial means usually requires some sort of site preparation, followed by seeding or planting, and a later release from competing vegetation. The Silvicultural and Aesthetics Handbook (DNR Handbook 2431.5) shall be used as a reference in determining timing, techniques and adequacy of both natural and artificial regeneration.

505.5.4 Tools for Achieving Forest Regeneration

505.5.4.1 Removal of Non-Merchantable Residual Trees

The cutting of non-merchantable residual trees may be required as part of a Timber Sale contract in order to ensure the survival of future seedlings, remove an undesirable seed source, clean the site for planting, etc. This requirement will normally be included in the Timber Sale contract when stand evaluation indicates that the density of non-merchantable trees following harvest is likely to inhibit the growth of desirable shade tolerant tree species. Removal of non-merchantable residual trees may also be done post-sale by County crews if it cannot be done as part of the Timber Sale contract, and if funding and a labor source is available.

505.5.4.2 Prescribed Burning for Natural Regeneration

Fire is one of the most natural means available to stimulate the reforestation of early successional tree species, to prepare a site for planting, or to regenerate species such as

Oak or Jack Pine that generally regenerate or compete more favorably following a fire. It is a tool employed by Foresters both for natural or artificial regeneration purposes.

Prescribed burning for site preparation can be used to reduce logging debris, clear the site, kill or set back unwanted competing vegetation, and to release nutrients into the soil. Department of Natural Resources (DNR) Fire Control staff will be the major source of guidance and direction for the use of fire as a tool. See Department of Natural Resources (DNR) Fire Presuppression Handbook 4320.50.

505.5.4.3 Mechanical Site Preparation

Mechanical site preparation is considered an artificial regeneration tool and includes the use of soil disturbance equipment such as a disc, roller chopper, patch scarifier, disk trencher or V-plow. The purpose is to prepare the ground on a site prior to tree planting or seeding. This type of equipment is used to reduce logging debris to a smaller size, to incorporate debris into the soil, to clear brush and debris from the site to facilitate planting or seeding, and to reduce competition from other vegetation.

505.5.4.4 Chemical Site Preparation

Herbicide application is also considered an artificial regeneration tool and can be an effective means of controlling unwanted vegetation in order to prepare a site for seeding or planting or to release desirable seedlings from competing vegetation. It may be used sparingly in situations where mechanical treatment is not expected to provide the level of vegetative control needed. Chemicals will be selected and applied in strict accordance with label recommendations and requirements. The objective of herbicide use is to set back competing vegetation enough to establish a reasonably stocked stand of desirable trees. Proximity to private lands, residences, highways and other public use areas will be considered in selecting both the herbicide and the means of application. Herbicides can be applied with hand-held equipment, by motorized ground based equipment or aircraft. A written prescription for each herbicide application will be prepared, kept on file, and be made available to the primary applicator.

505.5.4.5 Other Site Preparation Methods

Site preparation by other means may be considered where natural or artificial regeneration will be aided by treatment methods.

505.5.4.6 Tree Planting/Seeding

Either machine and/or hand planting/seeding will be utilized to insure adequate regeneration. The selection of species to plant or seed will be determined according to the specific management objectives and capabilities of each site. The majority of planting/seeding will be done in harvested areas where natural regeneration is inadequate.

505.6 TIMBER STAND IMPROVEMENT

Timber stand improvement practices to be utilized may include release, thinning, and pruning during this Plan period. Timber stand improvement includes any practices that increase the health, growth and quality of existing stands of trees. It can include activities such as release of desirable trees from vegetative competition, non-commercial thinnings of dense tree stands and pruning of lower tree branches. Some practices can be done either by hand, mechanically, or chemically. All practices and applications may be employed during this Plan period.

505.6.1 Release

Release work, if it cannot be done by commercial timber harvest, will be conducted by either mechanical or chemical means as site or environmental conditions warrant. Release is defined as the removal of competing vegetation from the desirable tree species.

505.6.2 Non-Commercial Thinning

Most thinning can be accomplished through commercial harvest operations. Non-commercial thinning will be considered if the individual site requirements, funding and/or available labor make it desirable.

505.6.3 Pruning

Pruning will be considered mainly for conifer species and carried out when deemed economically feasible.

510 RECREATION

The County Forest Ordinance and s. 28.11, Wis. Stats. authorize the Forestry Committee to provide recreational opportunities for the public. This authority is further recognized in the Mission Statement for the Sawyer County Forest (Chapter 100) which specifically identifies outdoor recreation opportunities. The Mission Statement also charges the Forestry Committee to conduct activities in a manner that prevents or minimizes the degradation of natural resources.

- The Forestry Committee may establish and maintain recreation areas and facilities within the County Forest. The Forestry Committee has been empowered to establish and enforce rules and regulations for the use of such developments and to establish fees for their use.
- The County Outdoor Recreation Plan, prepared by the Land and Water Conservation Department and updated approximately every five (5) years, will reflect the public use and interest in the County's recreation facilities and how the County plans to accommodate those uses and interests.
- The Sawyer County ordinances shall govern the lands designated by the County for park or recreational purposes.
- The County Recreation maps and the ordinances are appended in Chapter 900.

510.1 RECREATIONAL AND TRAIL STEWARD SERVICE AGREEMENTS

It is permissible for the Forestry Committee to contract with clubs or individuals to provide recreational services for the public. An agreement with a local snowmobile alliance to assist in grooming and maintaining county snowmobile and ATV trails facilities is an example. Written agreements with recreational clubs or organizations are required for any group building or maintaining recreational trails or facilities on the Sawyer County Forest. Agreements must be in place before the ground activity occurs. The purpose of these agreements are to define:

- Working relationships and responsibilities
- Financial relationship
- Expectations for training of personnel or volunteers who perform earth moving/disturbance activities on the County Forest
- Organized trail events and group-sponsored activities must protect Sawyer County with a minimum of one million dollar (\$1,000,000) liability insurance coverage and provide a Certificate of Insurance as proof of coverage that show Sawyer County as additionally insured.
- See Chapter 740.6 for more details about Recreational Trail Stewards Application

Agreements with the following cooperating organizations can be found in Chapter 900:

- Sawyer County Snowmobile/ATV Alliance
- American Birkebeiner Ski Foundation
- Archery Club
- Chequamegon Area Mountain Bike Association (CAMBA)
- Seeley Ski Club
- Chequamegon Fat Tire Festival

510.2 RECREATIONAL USE PERMITS

Organized events or special uses, other than informal recreation, require specific approval and/or a permit from the Forestry Committee. The sale of malt or intoxicating beverages is not permitted on the County Forest. Other types of special use permits or agreements are found in Section 515.

510.2.1 Recreational Cabin Permits

The Sawyer County Forest currently has a recreational cabin permit system in place. Legal opinions from the State of Wisconsin Assistant Attorney General and the Department of Natural Resources (DNR) indicate that the recreational cabin permit system is not in compliance with s. 28.11, Wis. Stats.

Phase-out Plan: In January 2005, the Sawyer County Board of Supervisors voted to phase-out the recreational cabin permit system so that all cabins will be removed from the County Forest no later than December 31, 2010. No new cabin permits will be issued. Remaining permits will be administered in accordance with the following provisions and in compliance with Sawyer County Ordinances. Non-compliance with conditions of the recreational cabin permit as hereby set forth will normally require cancellations.

510.2.2 Administration

- Current permits may be renewed annually. Permits will expire on December 31 of each year and shall be subject to renewal at the discretion of the Forestry Committee.
- Permittee must remove (move or demolish) said structure by December 31, 2010. Removal or demolition must be in compliance with any and all County, State and Federal laws. The site must be restored with grass or clover upon removal.
- Payment will be due by May 1st of each year each year. A ten dollar (\$10.00) late fee will be added to the permit fee after May 1st. **If not paid by October 31st, permit can be cancelled.**

- Rate of payment: One Thousand (\$1,000) per year. One-half of this fee, beginning in 2005, will be held by Sawyer County as a performance deposit (**Camp Disposal Fund Fee**) to insure the building is removed by Permittee in compliance with State and County rules and regulations within six (6) months after expiration date of the permit. At that time, any balance of the deposit will be returned to the Permittee after the cabin is correctly removed.
- Each cabin will be inspected annually for compliance with conditions of the permit and this plan. If, in the opinion of the Forest Administrator or the Forestry Committee, maintenance or upkeep are required or there are other violations of the agreement or of this plan, the Permittee will be notified in writing of the measures needed to be taken to correct the violation(s). The Forest Administrator will establish a reasonable time limit within which the Permittee must comply. The Forest Administrator will re-inspect such sites at the end of the given time period. If required remedies have not been satisfied, the permit will normally be cancelled.
- Relocation of existing permitted structures to another location on the County Forest will not be permitted under any circumstances.

In the case of an unexpected loss, the Permittee will not be allowed to rebuild on the existing site. Any structure must still be removed by the sunset date of December 31, 2010.

510.2.3 Other

- Each cabin will have posted, visible from the outside, the recreational cabin permit Control Number.
- Installation of electric power will not be allowed.
- Cabins may not be removed or demolished without first contacting the Forest Administrator.
- Issuance of a recreational cabin permit provides only for the Permittee to place a cabin upon a piece of described land. Posting or placing of "No Trespassing" signs or other similar signs on cabin area or other County Forest lands will require cancellation of permit.
- Using the cabin any part of the year for home residence is not allowed. Renting a cabin to another individual for a fee is not allowed.
- Cabins cannot be sold and permits transferred without prior approval from the Forest Administrator.

510.3 EXTENSIVE RECREATIONAL USE OF THE FOREST

Extensive recreation is defined as informal use. Examples of extensive uses shall include, but are not necessarily limited to: hunting, fishing, picnicking, biking, showshoeing, hiking, cross-country skiing off non-designated trails, photography, and nature study. Such uses do not require a permit but must be conducted according to the provisions of County Ordinances.

510.3.1 Hunting

The entire County Forest is open for regulated hunting with exception of areas that the Forestry Committee may designate as closed due to development for high public use.

Temporary hunting stands are permissible but must not be erected before September 1 and must be removed from the County Forest no later than December 31 each year. This includes elevated stands and ground blinds. The use of nails, lag screws, screw steps, or other damaging devices in trees is not permissible. No permanent type structures shall be permitted.

510.3.2 Fishing

All lakes and streams within the County Forest are available for regulated fishing, unless otherwise listed in State and County regulations.

510.3.3 Picnicking

Picnicking is allowed throughout the County Forest; however, the user must remove any garbage or debris generated. Violators will be subject to fines for littering.

510.3.4 Camping

No camping is allowed on the Sawyer County Forest.

510.4 INTENSIVE RECREATION AREAS

The Sawyer County Forest has sites developed to accommodate a high degree of public use. The Forestry Committee may prohibit other recreation activities that are not compatible with the intent of the development facilities.

510.4.1 Campgrounds

Sawyer County has no campgrounds.

510.4.2 Developed Picnic Areas

A developed picnic area open to the public is located at:

- Hatchery Creek Park

510.4.3 Swimming Areas

Sawyer County has no designated swimming areas.

510.4.4 Boat Landings

The Sawyer County Forest has boat landings at the following locations:

- Nelson Lake Tag Alder Landing (Highly Developed)
- Weirgor Lake (100 foot walk-in landing)

These landings are not to be considered boat-mooring sites. These landings are provided for public access to waters for recreational purposes and are shown on the recreation map in Chapter 900. Water access is also addressed in Chapter 700.

510.4.5 Shooting Ranges

Currently, there are no shooting ranges for firearms on the Sawyer County Forest. It is not uncommon for the public to use borrow pits located on the County Forest for sighting rifles. There is an archery range located near the Hayward Fire Tower north of County Highway B. It is within the powers of the Forestry Committee to allow ranges to be developed on the County Forest, but they must be open for public use. If the range is operated by an organization other than the County, then a written land use agreement will be required. The agreement shall include a provision ensuring public use, and require submission of proof of insurance annually.

510.5 MANAGED TRAIL AREAS

The Sawyer County Forest is a multiple-use Forest. The vast majority of the recreational trails that exist on the County Forest were originally built by the County, State or logging contractors to access the Forest for reforestation purposes, fire protection, and for a road system to truck harvested timber. Today, many of the roads originally built for Forestry purposes are utilized and enjoyed by many types of recreational users as well.

All recreational trails must be approved by the Forestry Committee before being

are built, or before they are designated for use if they already exist. The County Forest Administrator will present maps and other pertinent information regarding new proposed trails to the Forestry Committee for their decision.

Motorized and non-motorized activities are both recognized as legitimate uses within the Forest when the trail systems are:

- well-planned and designed to avoid user conflicts and minimize hazards, and,
- well-engineered and maintained for sustainability and to prevent erosion and to protect wetlands and water quality

Whenever possible and practical, multiple uses of trail systems are encouraged. Because Sawyer County is a working Forest with an active Timber Management Program, recreational users may frequently encounter Forest management activities. While harvesting activities may be unpopular with some recreational Forest users, logging is economically significant to the County directly (timber income) and indirectly (primary and secondary employment). In general, the Recreational Trails Program and the Timber Management Program can co-exist with minimal conflicts if they are well planned and coordinated. The trail systems are identified in Chapter 900.

510.5.1 Motorized Trail Opportunities

Motorized travel on trails can be a legitimate use of the County Forest provided that these trails are designed and maintained in a manner that minimizes damage to the environment and reduces user conflict. Trail use and development must be compatible and sustainable with the characteristics of the landscape. It shall be the policy of the Forestry Committee to consider opportunities for the following motorized trail use:

- Snowmobiles
- All Terrain Vehicles (ATV's)
- Motorcycles
- Motorbikes
- Vehicles licensed for public roadways

Refer to Chapter 700 for further discussion on motorized recreation opportunities on the Sawyer County Forest.

510.5.2 Non-Motorized Trail Opportunities

Non-motorized travel on trails is a legitimate use of the County Forest. Design and maintenance of these trails may highlight natural features present on the County Forest, should minimize damage to the environ-

ment and reduce user conflict. Trail use and development must be

compatible and sustainable with the characteristics of the landscape. It shall be the policy of the Forestry Committee to consider opportunities for the following types of non-motorized trail use:

- Cross-country Skiing
- Hiking
- Biking
- Hunter Walking
- Snowshoeing
- Running

Refer to Chapter 700 for further discussion on non-motorized recreation opportunities on the Sawyer County Forest.

510.6 RECREATION OPPORTUNITIES FOR PEOPLE WITH DISABILITIES

Sawyer County will reasonably comply with the Americans with Disabilities Act (ADA) regulations. In addition, it is the policy of the Forestry Committee to provide recreational opportunities for people with permanent disabilities wherever feasible and environmentally possible.

515 SPECIAL USES

Recognizing the vast potential for a variety of special uses of the County Forest by governmental units, businesses, organizations or individuals, the Forestry Committee may designate specified areas for special uses. Specific management methods are to be considered on these areas. Uses must be consistent with the intent of the County Forest Law. All requests for specialized uses of any County Forest lands will require a permit authorized by the Forestry Committee. A list of existing special use areas is appended in Chapter 900.

515.1 SAND AND GRAVEL

Sand and gravel pits located on the County Forest may be used only by units of government or contractors performing public works. Use of existing pits and the opening of new pits by other than the County Forestry Department will require Forestry Committee approval and be authorized by permit only. The condition of such permits may include but are not limited to:

- Requiring the pit and its access road to be screened from view from any public highway
- Severing trees from the stump
- Disposition of brush and dirt spoil by leveling or hauling away

- Sloping to prevent steep banks
- Filing with the Forestry Office an annual written report of gravel and sand removed

Other conditions may be set at the discretion of the Forestry Committee or County Forest Administrator. The Forestry Committee may set fees for materials removed. Other non-metaliferous materials will be dealt with on an individual basis.

All active, nonmetallic sites greater than one (1) acre in size, including those on the County Forest, are also subject to the provisions of the Nonmetallic Mining Reclamation Program, Chapter NR 135, Wis. Admin. Code. The County Forestry Department shall work with the local permit coordinator (often County or local Zoning office) in obtaining the necessary permits for nonmetallic mining operations.

515.2 EXPLORATION, PROSPECTING AND MINING

- The Forestry Committee may investigate all mineral exploration, prospecting and mining requests as they are received.
- The Department of Natural Resources (DNR) shall be notified of all requests as they become known in accordance with Manual Code 2712.1 (mineral exploration on County Forests per s. 28.11(3)(i), Wis. Stats.) or other codes which may be subsequently adopted.

The Public Forest Lands Handbook should be referenced for a more detailed procedure.

515.3 SANITARY LANDFILLS

The use of County Forest lands for sanitary landfills will not be allowed. The lands must first be withdrawn from the County Forest Law.

515.4 MILITARY MANEUVERS

Military maneuvers on County Forest lands will be considered under a Lease or Written Land Use Agreement. Upon receipt of a written request from the Military, the Forestry Committee, other necessary County staff, Military and Department of Natural Resource (DNR) representatives will discuss the issues at a public Forestry Committee meeting. After the needs have been outlined, the site shall be field checked, Department of Natural Resources (DNR) input and consistency with the County Forest Law sought, and Town officials advised. Depending on the scope of the project, a public hearing may be appropriate. If all aspects and concerns are addressed and agreed to, a legal instrument will be drafted. The matter will then be brought back to a Forestry Committee meeting for final input

and approval. The Public Forest Lands Handbook 2460.5, Chapter 270 will be used for further direction in this matter.

515.5 PUBLIC UTILITIES

Easements for public utilities will be considered by the Forestry Committee. Underground installations will be encouraged. The following main provisions shall be included in any County Board of Supervisors resolution granting permission for construction of any utility transmission line:

- Utility may be billed for merchantable Forest products and existing timber reproduction.
- Utility may be billed for land removed from production due to right-of-way clearing for losses of future income and multiple use benefits.
- Land removed from utility operations that is no longer suited "primarily for timber production, or that is no longer suitable for scenic, outdoor recreation, public hunting and fishing, water conservation or multiple use purposes" (s. 28.11(4)(c), Wis. Stats.) may need to be withdrawn from County Forest Law designation. The utility shall replace any lands requiring withdrawal from County Forest Blocking of the County Forest.
- Utility companies will be encouraged to use existing corridors and underground lines to minimize disturbance of the County Forest and native plants and animals.
- Merchantable timber will be removed in a manner approved by the Forestry Committee. Timber cut must be reported to the Department of Natural Resources (DNR) on Form 2460-1.
- Utility must provide notice of proposed route, including a map of not less than one (1) inch/mile scale, ninety (90) days in advance of proposed construction.
- Special maintenance, controlled access and signage concerns shall be addressed in any proposal.
- An appropriate fee shall be charged for easements.

515.6 PRIVATE UTILITY SERVICE LINES

If a landowner cannot gain utility access across other lands, the Forestry Committee may consider a Land Use Agreement for access across County Forest. Requests will be considered on a case-by-case basis. These agreements should consider the inclusions mentioned in Section 515 for easements as well as:

- The permit is non-transferable.
- The County retains full ownership of the utility corridor; however, it shall not be liable for maintenance, upkeep, or other damages associated with the utility service.

- The permittee waives any rights to any declaration of ownership or interest in the utility corridor on County land for administrative costs as a result of this Land Use Agreement - Utility permit. This agreement is granted upon the signature and any fees being received by Sawyer County.
- The fee for such a Land Use Agreement is set by the Forestry Committee.
- The standard Land Use Agreement for utility access is included as an exhibit in Chapter 900.

515.7 CELLULAR COMMUNICATION TOWERS

The siting of cellular communication towers on the Sawyer County Forest will be considered by the Forestry Committee on a limited basis. The Forestry Committee will consider company requests on a case-by-case basis and make a decision as appropriate. Requests will be considered on a case-by-case basis subject to the following conditions:

- It must be demonstrated that the site is the most practical location for such a tower.
- Land selected for such a tower is no longer suitable for continued entry in the County Forest Law program. In addition, any accompanying lands needed for tower support wires that inhibit the practice of Forestry and are no longer suitable for scenic, outdoor recreation, public hunting and fishing, water conservation or multiple use purposes (s. 28.11(4), Wis. Stats.) may also need to be withdrawn from the County Forest Law. Withdrawal is subject to approval by both the County Board of Supervisors and the Department of Natural Resources (DNR). The cellular communication company shall replace any lands requiring withdrawal from County Forest with other lands suitable for County Forest entry that are in the Forest Blocking.
 - Any agreement should also consider the inclusions under 515.5.

515.8 OTHER

Other types of special uses of the County Forest may be considered by the Forestry Committee. These may include, but are not limited to: research, independent study, scientific areas, parks, etc.. Regulations governing these uses will be developed on an individual basis.

520 AESTHETIC FOREST MANAGEMENT

Aesthetic Forest Management will be applied to the County Forest as detailed in this section.

The purpose of Aesthetic Management is to minimize negative aesthetic impacts of timber harvesting or other Forest development projects. This is typically accomplished by modifying the timing, design, or intensity of the harvest or development practice. The goal of the County Forestry Committee will be to protect and/or enhance the aesthetic value of this unique natural resources, within reason. However, the overriding accountability of the Forestry Committee is the entire Forest eco-system and managing the balance of this system in the best interest of current and future residents, property owners, visitor to the Forest and the State of Wisconsin.

The aesthetic classification system used in this Plan places all land in the Forest into either Aesthetic Management Zones A, B, or C. (Zone D classification as described in the Department of Natural Resources (DNR) Silvicultural Handbook is combined into the Zone A classification in this Plan). Land is placed into one (1) of the three (3) zones based on a number of factors including intensity of public use, type of recreational use, unique or scenic features, or visibility from a State or County Highway.

Whether or not Aesthetic Management Practices are implemented, or the degree to which Aesthetic Practices are implemented, is based on the site's Aesthetic Zone Classification. Sites that are located adjacent to an intensive public use area (e.g. American Birkebeiner Trail or Nelson Lake), or an area that may have low public use but has exceptional scenic values (e.g. Weirgor Lake or a remote Natural Area) may be classified a Zone A and require strict Aesthetic Management Practices. Other areas located in remote areas of the Forest where the public makes infrequent visits and there are no unique resources present, may be classified as a Zone C area and may not require that any Aesthetic Management Practice to utilized.

520.1 CLASS A ZONES

Class A Aesthetic Zones include areas where there is intensive public presence or use, or areas with unique or scenic values. The primary goal of management will be either for scenic values, for the preservation or conservation of a unique resource itself, or for the betterment of the recreational trail or facility itself. For recreational facilities placed in the Zone A classification, timber will be managed to afford the greatest scenic potential for public enjoyment, but not to the detriment of the recreational trail or facility itself, or the public's safety. (For Aesthetic Policy – American Birkebeiner Trail see Chapter 900(915).

"Boundaries" for a Class A Zone may include the area within the reasonable visible horizon of the use area. The Class A Zone may also include adjacent areas that receive a considerable amount of use as a result of the recreation area.

CLASS A ZONES	Defined Boundary
American Birkebeiner Trail Corridor	150 feet from trail edge on both sides of trail
Nelson Lake Shoreline	100 feet from ordinary high water mark
Weirgor Lake Shoreline	100 feet from ordinary high water mark
Hatchery Creek County Park	Undefined
Thornapple River	100 feet from ordinary high water mark
State Hwy 27, 63, 70 and 77 corridors	50 feet from highway right-of-way boundary

520.1.1 Permitted Uses – Class A Zone

- Timber harvesting related to Forestry regeneration practices
- Road and trail construction
- County directional, informational and recreational signs conforming to approved standards
- Borrow pits are discouraged, but may be approved by the Forestry Committee on a site-specific basis if reasonable alternate sites are not available.

520.1.2 Restrictions - Class A Zone

- Timber harvesting and other development may be prohibited during periods of peak public use.
- All slash must be lopped to within eighteen (18) inches of the ground and/or removed from view.
- Log landings are to be no closer than one hundred (100) feet from the affected facility without permission of the Forestry Committee.
- All tree and shrub planting will be spaced at random to enhance a natural appearance.
- New access roads will be permitted if they join the main road/trail at right angles. All such access roads/trails will be, when possible, curved so that no cleared line of sight will be created from the main road to the exterior boundary of the zone.
- Borrow pits are only allowed during the time a road is under construction. When any borrow operation is completed the site will be restored pursuant to Chapter NR 135, Wis. Adm. Code and must aesthetically conform to general use of the area. Permanent pits shall be located outside the Class A Zone boundaries and screened from the Class A Zone.

520.2 CLASS B ZONES

Class B Aesthetic Zones will be recreational trails or navigable waterways within the County Forest that are not used or viewed by the public as intensively as Class A Zones. Timber harvesting is considered of equal importance to the

recreational use of these zones. Aesthetic practices are accomplished with some minor harvesting or design modifications to retain some level of scenic attractiveness.

CLASS B ZONES	Defined Boundary
All waterways not designated as Zone A	75 feet from ordinary high water mark
Specific recreational trails designated by the Forestry Committee (none designated currently)	

520.2.1 Permitted Uses – Class B Zone

- All land management activities are permissible but should be exercised with sensitivity to aesthetics and maintaining the long-term quality of the trail surface.

520.2.2 Restrictions – Class B Zone

- Sales must be designed where possible to create irregular harvest lines to soften aesthetic impacts
- Slash must be removed within ten (10) feet of trail's edge
- Slash must be lopped to within twenty-five (25) inches of the ground
- Roads and landings must be rehabilitated to near original condition by implementing erosion control and vegetation (seeding) practices
- Silvicultural practices must be implemented that will encourage growth and regeneration of species/timber types that are long-lived and can be managed by thinnings or selection harvests

520.3 CLASS C ZONES

The majority of the Forest is classified as Zone C. Zone C includes all parts of the Forest not contained in Zones A or B. Logging, hunting, snowmobiling, ATV riding and bike riding are generally the most common uses of Zone C areas.

The primary management objectives in Zone C are to optimize timber production and wildlife habitat using Sustainable Forestry and Wildlife Habitat Management Practices. Implementation of special Aesthetic Management Practices in Class C Aesthetic Zones is not normally a high priority. Sawyer County Forest standard timber sale contract language regarding maximum allowable stump heights, slash heights and placement, road rehabilitation responsibilities, and Water Quality Best Management Practices contribute to a minimum Aesthetic

Management Standard for Zone C. Other opportunities to maintain or enhance scenic quality should be considered and implemented where practical, but are not required.

520.3.1 Permitted Uses - Class C Zone

All land management activities that are consistent with the goals of the County Forest are allowed.

520.3.2 Restrictions - Class C Zone

No special aesthetic management practices are required.

525 TREATY RIGHTS: GATHERING MISCELLANEOUS FOREST PRODUCTS

Any Treaty Rights Participant interested in gathering firewood, tree bark, maple sap, lodge poles, boughs, marsh hay or other miscellaneous Forest products (except fruits, seeds, or berries not enumerated in County Ordinances) from County land shall obtain a County Gathering Permit from the County Forestry office. Fees are waived for current Tribal Members. The County shall respond to the Gathering Permit request no later than fourteen (14) days after receipt of the request. The Gathering Permit (see Chapter 900) shall indicate the location of the material to be gathered, the volume of material to be gathered, and conditions of the gathering of the material necessary for conservation of the timber and miscellaneous Forest products on the County land, or for public health or safety.

The County may not deny a request to gather miscellaneous Forest products on County property under this section unless:

- The gathering is inconsistent with the Best Management Practices plan for the property.
- The gathering will conflict with the pre-existing rights of a permittee or other person possessing an approval to conduct an activity on the property, including a contractor for the County.
- Is otherwise inconsistent with conservation and public health or safety.

530 HIGH CONSERVATION VALUE FORESTS/AREAS (HCVF) and EXCEPTIONAL RESOURCES

High Conservation Value Forest (HCVF) is a term that identifies those areas possessing unique qualities locally, regionally, or nationally. Sawyer County's focus in managing these areas will be to maintain or enhance the qualities that make these areas special. In some instances, this may involve altering management practices to mitigate impacts and in others it may entail no active

management.

Exceptional Resources contain such things as high conservation value forests, wild rivers and lakes, significant geological features, natural areas, ruffed grouse management areas, historical and archeological sites. HCVF contain such communities as relict old-growth forest; habitat for endangered, threatened, and species of greatest conservation need; oak and pine barrens, natural origin pine stands; rare natural communities, such as central poor fen, forested seeps, white pine swamps, bedrock glades, large muskegs, shorelines of wild rivers and lakes, and animal concentration spots. It is the policy of Sawyer County to manage these types of resources and protect their individual exceptional features.

530.1 AREAS HIGH IN LOCALLY, REGIONALLY OR NATIONALLY SIGNIFICANT BIODIVERSITY VALUES

530.1.1 Wisconsin State Natural Areas

Sawyer County manages a variety of property designations including Wisconsin State Natural Areas (SNA's). The SNA system represents the wealth and variety of Wisconsin's biological diversity. They contain outstanding examples of native biotic communities and are often the last refuges in the state for rare and endangered plant and animal species. The Wisconsin SNA program works with counties to further recognize outstanding native biotic communities that Sawyer County is presently managing as exceptional resources. SNA's are unique in that they can exist as stand alone properties or be designated within the boundaries of another property type. Sawyer County maintains its land ownership, management and decision-making authority, but with cooperative recognition of these sites the County can enhance its ability to provide a broader range of opportunities for the citizens.

Department of Natural Resources (DNR) Endangered Resources staff will work cooperatively with the County Forest by coordinating educational, monitoring, and research activities. Assistance on management projects can provide the county with more resources to accomplish necessary management. Management will protect the unique character of the area. The importance of Wisconsin State Natural Areas has been recognized on the County Forest by cooperating with Department staff.

530.1.2 Species Concentration Areas

Sawyer County will apply special restrictions on disturbances if any bat hibernacula, herp hibernacula, or bird rookeries are found. Presently no such concentration places have been found on the County Forest.

530.1.3 Other

Additional sites are known that contain rare species habitat or native communities that the County may consider for special management. These include:

530.1.3.1 Camp Smith - Deadman Lakes Natural Pine Area

The northern part of the County Forest contains many patches of natural origin red and white pine. Pines of natural origin are uncommon in the State and are becoming more rare every year. This type of pine forest is considered a high conservation value forest. Even though management is needed to maintain the cover types, management plans should consider development of old-growth characteristics and natural regeneration methods. The site could develop into a landscape pinery management area. Bureau of Endangered Resources (BER) biologists would be available to provide assistance in planning should the County choose to develop such an area.

530.1.3.2 Log Creek Drumlins

This site contains a large open black spruce muskeg. Nearly the full complement of acid bog plants is found at this site. Patches of lower wet areas harbor poor fen species. Current management practices should maintain this site.

530.2 RARE, THREATENED, OR ENDANGERED ECOSYSTEMS

530.2.1 Relict Old Growth Stands

One site, Totogatic River Hemlocks has been given special recognition as a Wisconsin State Natural Area (SNA). Other acres of eastern hemlock and white cedar stands will be maintained. Hemlock is important to the diversity of our northern hardwood stands and provides needed habitat for many species, including migratory songbirds and a seed source for regeneration. Management is currently keyed to maintaining hemlock as a component of northern hardwood stands and improving the health and vigor of individual trees and islands of trees. Regeneration is dependent on overcoming high deer populations. Silvicultural techniques in conjunction with repellents, fencing, and/or bud capping may prove useful in regenerating hemlock and enhancing its presence on the County Forest.

Cedar is equally important to the diversity of our forested wetlands and provides needed habitat for many species, including migratory songbirds and a seed source for regeneration. With regard to the difficulties in regenerating white cedar, due mostly to high deer populations, these stands are currently not being harvested. Regeneration is dependent on overcoming high deer populations. Silvicultural techniques in conjunction with repellents, fencing, and/or bud capping may prove useful in regenerating white cedar and enhancing its presence on the County Forest.

530.2.2 Rare, Threatened and Endangered Species Habitat

As part of, and in addition to, the unique natural communities listed in Chapter 530.1, rare, threatened and endangered plant and animal species exist in the Sawyer County Forest. A complete species list and their Wisconsin status can be found in Chapter 900.

530.2.3 Geological Features of Significance

With regards to Pitted Outwash and Kettle Lakes in to the west and north of Lake Chetac, the County will need to decide if it's appropriate to limit roads and gravel extraction.

530.2.4 Important Bird Area

The Important Bird Areas (IBA) program is a global initiative that links local and state conservation efforts to national and international efforts to protect essential habitat for all birds. The IBA program is a voluntary, cooperative initiative that aims to identify and protect those sites that are most important to birds in any stage of their life cycle. These sites are considered to be exceptionally significant for bird conservation.

The entire Blue Hills has been nominated as an Important Bird Area. In addition, a breeding bird survey recorded fifteen (15) species of neotropical migrant warbler, which are about ninety (90) percent of the possible warbler species for this latitude. Unusual was the high numbers of Louisiana Waterthrush. The Blue Hills represents a significant range extension for this southern Wisconsin species. During the breeding bird surveys, different structural patterns were assessed for bird species composition. Two harvest areas appeared to have much different effects on warbler utilization. An area of unconventional even-age forest management had the well-documented species that utilize very early successional forest. Whereas, the other area had selectively removed the aspen component and leaving many hardwoods had a very diverse warbler concentration including all the early successional species.

Sawyer County's devised management regime appears to have substantial benefits for neo-tropical migrant warblers. In addition, pockets of hemlock, black spruce, tamarack and other conifers significantly add to the species diversity.

The IBA generally encompasses the Blue Hills Sections 21-24, 28-25 and 32-36, Township 37 North, Range 9 West in Edgewater Township, and Section 19, 29-32 of Meteor Township. Sawyer County voluntarily recognizes this IBA. Timber management and recreation opportunities will continue, although some activities may be modified to accommodate nesting birds or enhance bird habitat. An example is to promote denser sapling layers by managing different gap sizes for more diverse warbler habitat. Existing areas of heavy aspen dominance would continue to be managed for aspen. This recognition does not affect any private land, although private landowners may choose to voluntarily participate in the IBA program.

530.3 CULTURALLY SIGNIFICANT FEATURES

Management implications associated with these designations are included in Chapter 800 of this Plan.

530.3.1 Burial Mounds/Cemeteries

- None have been identified at this time.

530.3.2 Logging Camps

- None have been identified at this time.

530.3.3 Landmarks

- None have been identified at this time.

530.3.4 Other

- CCC Camp Smith Lake
- Dynamite Storage Shed

530.4 LOCALLY SIGNIFICANT SITES

530.4.1 Areas Requiring Protection not included above

It is the policy of Sawyer County to manage these type resources to enhance and protect their individual exceptional features. A review

of the State Historical Society database will be conducted on all timber sales.

Exceptional Resources include such things as wild rivers and lakes, natural areas, ruffed grouse and wild turkey management areas, areas of unique geological features, historical, and archeological sites. It is the policy of Sawyer County to manage these types of resources to enhance and protect their individual exceptional features.

DRAFT
SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 600

PROTECTION

600	PROTECTION.....	2
605	FIRE CONTROL.....	2
	605.1 COOPERATION WITH THE DEPARTMENT OF NATURAL RESOURCES.....	2
	605.1.1 Personnel.....	3
	605.1.2 Equipment.....	3
	605.1.3 Fire Detection.....	3
	605.1.4 Forest Fire Prevention.....	4
	605.2 SLASH DISPOSAL.....	4
	605.3 DEBRIS BURNING.....	4
	605.4 CAMPING FIRES.....	4
	605.5 PRESCRIBED BURNING.....	4
	605.6 COUNTY FOREST FIRE HAZARD AREAS.....	5
	605.7 UNCONTROLLED FIRE.....	5
610	CONTROL OF FOREST PEST AND PATHOGEN.....	5
	610.1 DETECTION.....	5
	610.2 PEST SURVEYS.....	6
	610.3 INTEGRATED PEST MANAGEMENT.....	6
	610.3.1 Specific Pest & Pathogens of Interest.....	6
	610.3.1.1 Gypsy Moth Strategy.....	7
	610.3.1.2 Jack Pine Budworm.....	8
	610.3.1.3 Oak Wilt.....	9
	610.3.1.4 Forest Tent Caterpillar.....	9
	610.3.1.5 Two-lined Chestnut Borer.....	10
	610.3.1.6 Emerald Ash Borer.....	10
	610.3.2 Funding.....	11
	610.3.3 Legal Obligations.....	11
	610.3.4 Special Projects.....	11
615	TIMBER THEFT.....	11
	615.1 TIMBER THEFT INVESTIGATION.....	12
	615.1.1 Determination of Theft.....	12
620	ENCROACHMENTS.....	12

600 PROTECTION

Objective

The objective of this chapter is to:

- Protect and manage the resources of the County Forest from preventable losses resulting from fire, insects, disease and other destructive elements including those caused by people. Protective methods shall include proper silvicultural methods.

605 FIRE CONTROL

Damage to the County Forest caused by uncontrolled fire can create an important challenge in the management of the Forest. Loss of resource values caused by fire will be minimized through organized prevention, detection and suppression methods. Maintaining a healthy Forest is the key to fire management. The Department of Natural Resources (DNR) is responsible for all matters relating to the prevention, detection and suppression of Forest fires outside the limits of incorporated villages and cities (s. 26.11(1), Wis. Stats.). The Department of Natural Resources (DNR) works cooperatively with local fire departments in all fire control efforts. The Sawyer County Forest is part of the Intensive Forest Fire protection area. The Fire Prevention Handbook No. 4310.5, Fire Presuppression Handbook No. 4320.5, the Fire Presuppression Handbook No. 4342.5 and the Area Fire Plan shall serve as the guidelines for fire control activities.

605.1 COOPERATION WITH THE DEPARTMENT OF NATURAL RESOURCES (DNR)

Pursuant to s. 26.11(4) and s. 28.11(4)(f), Wis. Stats., and of the Sawyer County Forestry Ordinance, the County may cooperate with the Department of Natural Resources (DNR) in the interest of fire prevention, detection and suppression on the County Forest. This is accomplished through agreements authorizing the Department of Natural Resources (DNR) to use County Forest land or to utilize

County personnel and equipment for fire protection activities.

605.1.1 Personnel

County Forest personnel, upon request from the Department of Natural Resources (DNR), shall be made available for Forest fire control efforts with the County in accordance with an established Memorandum of Understanding (MOU). The Department of Natural Resources (DNR) is responsible for training and directing the activities of County personnel in accordance with the rules identified in the Department of Natural Resources (DNR) Area Fire Action Plan.

605.1.2 Equipment

County Forest equipment, upon request and as identified in the MOU, shall be available for Forest fire control suppression. During periods of high fire hazard, all County Forest vehicles and/or crews should be equipped with one (1) or more back pack cans, axes or shovels, appropriate personal protective equipment, mobile communication and any other equipment deemed essential by the MOU. All hand tools shall be maintained and provided by the Department of Natural Resources (DNR).

605.1.3 Fire Detection

Fire detection is the responsibility of the Department of Natural Resources (DNR). County Forestry personnel shall assist and report any wild fires to the Department of Natural Resources (DNR) or 911 Dispatch. The following Department of Natural Resource (DNR) fire towers are located on County Forest lands:

- Swayne Tower - located on Hogsback Road
- Hayward Fire Tower - located on Fire Tower Road

605.1.4 Forest Fire Prevention

Department of Natural Resources (DNR) fire control personnel are authorized by the County to place fire prevention signs at recreational areas and other strategic locations within the County Forest. The County conducts and controls all operations (including harvesting) on the Forest in a manner designed to prevent Forest fires. The use of the County Forest during high fire danger periods may be restricted. These restrictions will include, but not be limited to, recreation and logging.

605.2 SLASH DISPOSAL

Timber sale contracts and Township Right-of-Way cuttings will be designed to meet or exceed the requirements of the Slash Disposal Law, s. 26.12, Wis. Stats. Additional requirements will be imposed when necessary.

605.3 DEBRIS BURNING

Unauthorized burning of debris is not permitted on County Forest Lands pursuant to s. 26.12(5), Wis. Stats. Burning permits are required through the Department of Natural Resources (DNR).

605.4 CAMPING FIRES

Cooking, warming, or campfires do not require a burning permit and are allowed any time except during emergency Forest fire regulations. This exemption for permits applies to fires solely set and used for this purpose. **Bonfires and trash fires are not campfires.** Local burning regulations and permits may be obtained through local Fire Wardens or the Department of Natural Resources (DNR).

605.5 PRESCRIBED BURNING

All prescribed burning on Sawyer County Forest Lands will follow the Department of Natural Resources (DNR) recommendations. See Manual Code 4361.1 and

Prescribed Burn Handbook No. 4320.5 for details. Prescribed burning may be an effective fire management tool on the Sawyer County Forest.

605.6 COUNTY FOREST FIRE HAZARD AREAS

Primary emphasis will be placed on fire control efforts in pine areas. Maps of these areas are available at the local Department of Natural Resources (DNR) field office (Fire Management Handbook 4321.5, Section 3030). Firebreaks will be established in new plantations in accordance with Manual Code 2421. Existing access roads, firebreaks and water access points will be maintained by the County as deemed necessary. Secondary emphasis will be placed on hardwood areas with no firebreaks developed or maintained. However, access roads will be maintained as defined in Chapter 700 of this Plan.

605.7 UNCONTROLLED FIRE

Any uncontrolled or non-prescribed fires on the County Forest land will be suppressed as soon as possible.

610 CONTROL OF FOREST PEST AND PATHOGEN

610.1 DETECTION

Damage to the County Forest caused by insects, other pests and disease can adversely affect management of the Forest resources. Losses to resource values impacted by Forest pests will be minimized through integrated pest management methods, with emphasis on silvicultural prescriptions (timber sales). The detection and control of pest problems will be accomplished by County and Department of Natural Resources (DNR) personnel in cooperation with other agencies.

610.2 PEST SURVEYS

Pest surveys are conducted under the direction of the Department of Natural Resources (DNR) regional entomologists. The Department of Natural Resources works in cooperation with the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) in monitoring the spread of gypsy moths. The County may cooperate by providing personnel and equipment to assist in these operations.

610.3 INTEGRATED PEST MANAGEMENT

Integrated pest management for the purpose of this Plan, is defined as follows:

"The maintenance of destructive agents, including insects, at tolerable levels, by the planned use of a variety of preventive, suppressive, or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable."

The integrated pest management control and methodology shall be determined jointly by the County Forest Administrator, and the Department of Natural Resources (DNR) Liaison Forester in consultation with the Department of Natural Resources (DNR) Regional Entomologist and Regional Forester. Suppression of Forest pests may include the following:

- Silvicultural prescriptions, including timber sales
- Biological control
- Chemical control

610.3.1 Specific Pests and Pathogens of Interest

- Forest Tent Caterpillar - Aspen and Oak
- Two-lined Chestnut Borer - Red Oak
- Basswood Thrips - Basswood
- Gypsy Moth
- Emerald Ash Borer

610.3.1.1 Gypsy Moth Strategy

This introduced pest has progressed westward from the northeastern United States since the early 1900's. It reached eastern Wisconsin and has been widespread in some Counties since 1988. Despite efforts to slow-the-spread and suppress outbreaks, it is progressing westerly through Wisconsin. The Sawyer County Forest's strategy to combat this defoliating insect will focus on using silvicultural techniques to maintain and improve Forest vigor, so as to decrease the likelihood and severity of defoliation. In addition, suppression spraying with approved insecticides may be considered in high use recreation areas and stands containing a high percentage of susceptible, high valued timber. Biological controls may also be available for introduction to help reduce outbreak frequency. ARC/GIS and the Forest Reconnaissance database will be utilized for identifying areas of greatest susceptibility throughout the planning period.

The presence or discovery of threatened or endangered species in these areas may impact both the type of treatment and the decision to apply suppression tactics. Current insecticides for Gypsy Moth control include a bacterial insecticide (Btk) and a commercial formulation of a naturally-occurring virus (Gypchek). The Gypchek virus, specific to Gypsy Moth larvae, is only available through the federal suppression program administered by the Department of Natural Resources (DNR). The intent in combating this insect is not to eradicate, but rather to reduce populations so that tree mortality is maintained at tolerable levels. The Department of Natural Resources (DNR) local Gypsy Moth Coordinator and Entomologist will be available for consultation on control tactics and

possible quarantine procedures. The Department of Agriculture, Trade and Consumer Protection (DATCP) is the agency responsible for quarantine procedures for wood products from infested counties.

Sawyer County Forest's threshold levels for suppression will be as follows:

- Twenty (20) acres in size and of a compact and regular shape (minimum eligible size for aerial spraying through the State suppression program) OR high use, developed recreation areas.
- Five Hundred (500) egg masses per acre based on 1/40th acre (18.6 ft. radius) plots

610.3.1.2 Jack Pine Budworm

Jack Pine Budworm is a native needle-feeding caterpillar that is generally considered the most significant pest of Jack Pine. Vigorous young Jack Pine stands are rarely damaged during outbreaks. The most vigorous stands are well stocked, evenly spaced, fairly uniform in height, and less than forty-five (45) years old. Stands older than forty-five (45) years that are growing on very sandy sites and suffering from drought or other stresses are very vulnerable to damage. Tree mortality and top-kill are more likely to occur in these stands. This mortality and top-kill create fuel for intense wildfires. It will be Sawyer County's strategy to harvest at the appropriate rotation age, maintain high stand densities (without overcrowding), and use good site selection for Jack Pine. This will be an effort to help avoid Budworm-caused tree mortality and reduce the threat of damaging wildfires while still providing suitable conditions for Jack Pine regeneration. Prompt salvage following an

outbreak will also help reduce the possibility of wildfire. Use of insecticides is not warranted in combating this Forest pest on the County Forest.

610.3.1.3 Oak Wilt

Oak Wilt is a destructive disease of Oak trees. It is responsible for the death of thousands of Oak trees in Forests, woodlots, and home landscapes each year. Oak Wilt is caused by a fungus that invades and impairs the tree's water conducting system, resulting in branch wilting and tree death. Trees in both the Red Oak group and White Oak group are affected. There is no known cure once a tree has Oak Wilt. Prevention of new Oak Wilt infection centers is the best management option and involves avoiding injury to healthy trees and removing dead or diseased trees. Healthy trees should not be pruned during the growing season as this attracts beetles that may carry the Oak Wilt fungus. If pruning is necessary or damage has occurred during the growing season, e.g., through construction activities or storms, the wounds should be painted immediately with a wound paint.

At this point in time, Oak Wilt is not a problem in Sawyer County.

610.3.1.4 Forest Tent Caterpillar

Forest Tent Caterpillar can be found throughout the United States and Canada wherever hardwoods grow. The favored hosts in Wisconsin are Aspen and Oak. This native insect causes region-wide outbreaks at intervals from ten (10) to fifteen (15) years; outbreaks usually last two to five (2-5) years in the Lake States. Severe and repeated defoliation can lead to dieback and/or

reduced growth of affected trees, which in some instances may be significant. Populations are often controlled by natural enemies, helping the population crash. Aerial spraying of insecticides can be an option for control as well. It will be Sawyer County's strategy to employ sound silvicultural practices to combat the cyclic pest.

610.3.1.5 Two-lined Chestnut Borer

The Two-lined Chestnut Borer is a common secondary pest in trees which have been severely stressed (defoliated several years in a row, lack of sufficient ground moisture, soil compaction, etc.). Oaks that have been defoliated by insects such as Gypsy Moth, Fall Cankerworm and Forest Tent Caterpillar can be attacked and killed by the Two-lined Chestnut Borer. Prevention of Two-lined Chestnut Borer is the best management option. Sawyer County will strive to maintain healthy trees through sound silvicultural practices to discourage infestation. Infestations will be salvaged promptly.

610.3.1.6 Emerald Ash Borer

The Emerald Ash Borer was introduced from Asia and has taken hold in lower Michigan. In Michigan, it has resulted in widespread mortality specific to Ash including green, white, black and several horticultural varieties. Although not currently present in Wisconsin, it is a severe threat to Ash in the State. Ash comprises a significant component in the northern hardwood timber type and can be found in nearly pure stands in some lowland areas. Adult beetles feed on foliage; however, it is the larvae that cause mortality by feeding on the phloem and outer sapwood of the Ash trees. Sawyer County will cooperate with ongoing trapping and survey efforts. Sound silvicultural practices will continue to be used to maintain Forest health. Should an infestation occur, Sawyer County will work with

the Department of Natural Resources (DNR) Forest Health staff in applying measures to minimize the spread, including aggressive salvage trees.

610.3.2 Funding

Desired control activities on the County Forest will be funded through the County Forestry budget, if other sources of funding are not available. In the event costs require additional funding, special appropriations from the Resource Development Fund will be sought. In addition, State legislation may provide monetary assistance in direct crisis situations where major control operations are undertaken. In case of Gypsy Moth outbreaks, the County may seek funding from the State of Wisconsin Gypsy Moth Suppression Program.

610.3.3 Legal Obligations

All control operations will comply with regulations as set forth in existing State and Federal legislation. Refer to the Wisconsin Administrative Code NR 80, AG 29, and the Environmental Pesticide Control Act.

610.3.4 Special Projects

The County may cooperate with other agencies in Forest pest research. See Chapter 200.

615 TIMBER THEFT

All cases of alleged timber theft on the County Forest shall be investigated and resolved promptly. An allegation of theft by cutting and/or removing timber from the County Forest does not alleviate the County from severance payment under s. 28.11(9), Wis. Stats. The County will collect damages pursuant to s. 26.05 Wis. Stats. and may also pursue criminal charges under s. 943.20 Wis. Stats. and/or seek civil damages.

615.1 TIMBER THEFT INVESTIGATION

The following procedure should be used in all cases of alleged timber theft:

615.1.1 Determination of Theft

- Gathering facts - The County, through its Sheriff's Department, and Recreational Enforcement Officer along with assistance of the Department of Natural Resources (DNR) Liaison Forester, Rangers and Wardens, will ascertain the facts pertinent to the alleged theft, including determination of the damages to the County. Legal counsel representing the County should be involved in all aspects of investigation. Property involved in the alleged theft may be seized pursuant to s. 26.04, Wis. Stats. for use as evidence.
- Boundary determination - If property boundaries are involved, the County shall conduct, if necessary, a legal survey of the boundary in question.

620 **ENCROACHMENTS**

The County will actively investigate all suspected cases of encroachments on the County Forest. To insure the integrity and continuity of the County Forest land, all cases will be dealt with promptly and in a consistent manner. The following procedures will be used in all cases of suspected encroachments:

- The County will establish property boundaries; if necessary, a legal survey will be conducted.
- The County will gather all facts.
- The Forestry Committee, in consultation with the Forest Administrator, County Legal Counsel, and the Department of Natural Resources (DNR), will make a decision as to the disposition of the case.
- All above ground encroachments that are movable will be removed from County property.
- Permanent type facilities, such as homes, garages, and septic systems

shall be addressed individually and may be removed or handled by a Land Use Agreement. Sale or transfer of the encroachment should remain an option depending on the circumstances involved and the viability of an adverse possession claim (s. 893.29, Wis. Stats.).

- Provisions in the Land Use Agreement, if that option is pursued, may include granting the encroacher permission to encroach on the County Forest lands with the following stipulations: no other encroachments will be allowed; the permit is non-transferable; the County must be notified once encroachment is terminated; the County continues full ownership and control of the property; Permittee agrees to waive any rights to any future declaration of ownership or interest in the encroached County property; the County reserves the right to cancel the permit and the permit is to be filed in the office of the Sawyer County Forestry Department and all fees related to the land use permit shall be paid by the Permittee.
- A copy of the actual Land Use Agreements can be found in Chapter 900.

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 700

ROADS, TRAILS AND ACCESS

700 MISSION STATEMENT FOR THE SAWYER COUNTY FOREST ACCESS MANAGEMENT PLAN..... 4

701 CHAPTER/PLAN OBJECTIVES..... 4

701.1 VEHICLE USE REGULATIONS ON ALL COUNTY FOREST LANDS. 4

702 ACCESS CONTROL AND HISTORY..... 5

702.1 TIMBER HARVESTING ROADS..... 5

705 MANAGEMENT BLOCKS..... 7

710 BEST MANAGEMENT PRACTICES..... 8

715 FOREST ROAD AND RECREATIONAL TRAIL CONSTRUCTION AND MAINTENANCE..... 9

715.1 SUSTAINABLE ROAD/TRAIL DEFINITION..... 9

715.2 ROAD/TRAIL SPECIFICATIONS AND DESIGNS..... 9

715.3 SAWYER COUNTY RUTTING POLICY/EXCESSIVE SOIL DISTURBANCE - FOREST ROADS AND RECREATIONAL TRAILS. 10

715.3.1 Rutting Standards..... 10

715.3.2 Guidelines..... 10

715.3.3 Standards..... 11

715.3.3.1 Forest Roads..... 11

715.3.3.2 Mountain Bike Trail Standards..... 11

715.3.3.3 Landings..... 11

715.3.3.4 Skid Trails..... 11

715.3.3.5 General Harvest Area..... 11

715.3.3.6 Measurements..... 12

715.4 FOREST ROAD CLASSIFICATIONS..... 12

715.4.1 Permanent Primary Roads..... 12

715.4.2 Permanent Secondary Roads..... 12

715.4.3 Temporary Roads..... 13

715.4.4 Obsolete Roads..... 13

715.5 FORDS..... 14

715.6 ACCESS ACROSS PRIVATE LANDS..... 14

720 ROAD AND TRAIL DESIGNATIONS..... 15

720.1 OPEN ACCESS..... 15

720.1.1 Open Access (Forest Road)..... 15

720.1.2 Open Access (ATV/Snowmobile Trail)..... 15

720.1.3 Open Access (ATV/Snowmobile/Mountain Bike Trail)..... 15

	720.1.4 Open Access (Snowmobile).....	15
	720.1.5 Open Access (Mountain Bike).....	16
720.2	LIMITED OPEN ACCESS.....	16
	720.2.1 Limited Open Access (Forest Road).....	16
	720.2.2 Limited Open Access (Snowmobile).....	16
	720.2.3 Limited Open Access (Mountain Bike).....	16
	720.2.4 Limited Open Access (Motorized Recreational Exclusive).....	16
	720.2.4.1 ATV/Snowmobile Exclusive.....	16
	720.2.4.2 Snowmobile Exclusive.....	16
	720.2.4.3 ATV Exclusive.....	16
720.3	CLOSED ACCESS.....	17
	720.3.1 Closed Access (Forest Road).....	17
	720.3.2 Closed Access (Hunter Walking Trail).....	17
	720.3.3 Closed Access (Recreational Exclusive).....	17
	720.3.3.1 Single Track Bicycle Trails.....	17
	720.3.3.2 Ski Trails.....	17
720.4	SIGNAGE.....	17
	720.4.1 Closed Access.....	17
	720.4.2 Open Access.....	17
	720.4.3 Limited Open Access.....	17
725	RECREATIONAL TRAIL ACCESS.....	18
	725.1 ROAD AND TRAIL CLOSURES.....	19
	725.1.1 Seasonal Closure.....	19
	725.1.2 Additional Closures.....	19
730	RESTRICTED ACCESS AREAS.....	20
735	RECREATIONAL TRAIL CONSTRUCTION AND MAINTENANCE.....	20
	735.1 RECOMMENDED PROCESS REGARDING REQUESTS TO CONSTRUCT AND/OR MODIFY RECREATIONAL TRAILS.....	20
	735.2 CONSTRUCTION.....	20
740	OFF-ROAD OR OFF-TRAIL RECREATIONAL USE BY VEHICLES.....	21
745	DESIGNATED NON-MOTORIZED RECREATIONAL TRAILS.....	21
	745.1 HIKING TRAILS.....	21
	745.2 BICYCLE TRAILS.....	21
	745.3 HUNTER WALKING TRAILS.....	22
	745.4 CROSS-COUNTRY SKI TRAILS.....	22
	745.5 HORSEBACK RIDING TRAILS.....	23
750	MOTORIZED RECREATIONAL TRAILS.....	23
	750.1 SNOWMOBILE TRAILS.....	23
	750.1.1 State-Funded Trails.....	23
	750.1.2 Local Club Trails.....	24
	750.1.3 State-Funded Snowmobile Trails.....	24
	750.1.4 Undesignated Snowmobile Trails.....	24
	750.2 ALL-TERRAIN VEHICLE (ATV) TRAILS.....	25
	750.2.1 ATV Defined.....	25
	750.2.2 State Funded ATV Trails in Sawyer County.....	25

	750.2.3 Big Game Retrieval.....	26
	750.3 OTHER MOTORIZED RECREATIONAL VEHICLE TRAILS.....	26
	750.3.1.....	26
755	RECREATIONAL TRAIL SIGNS.....	26
	755.1 SIGNING STANDARDS.....	27
760	RECREATIONAL TRAIL STEWARDS.....	27
765	WATER ACCESS.....	28
	765.1 PUBLIC BOAT ACCESS SITES MAINTAINED BY TOWNS.....	29
	765.2 UNDEVELOPED WATER ACCESS POINTS.....	29
770	WILD LAKES.....	29
775	WETLANDS.....	29
780	ACCESS TO PRIVATE LANDS.....	30
785	PUBLIC UTILITY ACCESS.....	30
790	RECREATIONAL OPPORTUNITIES ON TRAILS FOR PEOPLE WITH DISABILITIES.....	30
795	RECOMMENDATIONS/FUTURE NEEDS.....	31

700 MISSION STATEMENT FOR THE SAWYER COUNTY FOREST ACCESS MANAGEMENT PLAN

The Mission Statement for the Sawyer County Forest Access Management Plan shall be to plan for, provide, and regulate access to the County Forest:

- For the benefit of the public, including a wide variety of user groups.
- To ensure the sustainability of roads and trails for current and future generations.
- To protect and conserve the environment including soils, wetlands, waterways, and a wide variety of other forest flora and fauna.
- To recognize and find solutions to minimize conflicts among a wide variety of user groups.

701 CHAPTER/PLAN OBJECTIVES

The main objectives of the Road and Access Plan is to:

- Provide direction to the present and future Forestry Committees and resource managers working on the County Forest. The goal of the plan is to provide balanced access to a wide variety of groups while still protecting the natural resources.
- Maintain a network of roads and trails on the County Forest that will meet the needs for resource management and protection activities.
- Identify the distribution, density, and types of roads and trails and uses of roads and trails needed to establish a safe and efficient transportation and recreation system that complements the economic, environmental, and social interest in the County Forest.
- Identify the existing and future County Forest roads eligible for Transportation aids under s. 86.31(1), Wis. Stats.
- Identify areas on the County Forest where access is limited or restricted and provide for enforcement of limited access.
- Identify the provisions and criteria that will be policy when addressing management issues on the County Forest.

701.1 VEHICLE USE REGULATIONS ON ALL COUNTY FOREST LANDS

The following regulations apply to roads/trails and access to the Forest by motorized vehicles. It is understood that vehicles used in the management of the Forest by staff or by special permission, may be exempted from any of the regulations listed:

- No off-road (cross-country) vehicle use is allowed.
- No motorized vehicles are allowed on road or trails with earthen berms, piled logging debris, gates or signs, even if signs are missing and berms damaged.
- No two-wheeled motorized vehicles are allowed on the Forest except state licensed motorcycles on roads classified as open access or as limited open access.
- No motor vehicle use is allowed from April 1st to May 15th (Spring Closure).

702 ACCESS CONTROL AND HISTORY

Resource management and protection activities, recreational uses, and other public uses on the Sawyer County Forest require several different types of access. The Sawyer County Forest is large and has diverse acreage throughout which a broad network of access routes has developed. A combination of topography, soils, vegetation, surface waters, seasons of the year, presence/absence of roads or trails, ownership of adjoining lands, and public regulations interact to control access to all parts of the County Forest.

Please note, the terminology of road and trail is often used interchangeably in this Chapter, as a majority of designated recreational trails are located on existing forest roads that are still maintained as forest roads, with the exceptions of the American Birkebeiner Ski Trail, Hatchery Creek Trails and single track mountain bike trails.

702.1 TIMBER HARVESTING ROADS

Almost all of the existing roads and trails were originally developed as logging roads over many years by timber producers while in the process of harvesting and transporting forest products to the mills. Some were constructed as forest fire protection lanes, or trails used to reach popular hunting and fishing areas. The locations and standards for these earlier roads were not routinely established by County personnel. Prior to 1980, staff from the County Forestry Department or the DNR rarely designed the location or standards for these roads. Early access trails for timber removal were designed for frozen ground access and were built to accommodate timber harvesting equipment that was much smaller than equipment used today. Many of these trails were built with little regard to wetlands, slope, erosion control or other environmental concerns.

As the forestry program evolved through the 1970's and 1980's, more care and planning were implemented in the development of this road network. Bridges, culverts, and primary haul roads were built and installed providing feasible access to most areas of the forest.

Currently, a majority of the forest is accessible using the existing road system. Road construction will still be needed as remaining areas are accessed for forest management. Unsuitable roads will be abandoned or reclaimed and existing roads will be upgraded to allow access for modern equipment.

Over the years, the road and trail density and frequency of vehicle use on the County Forest has increased in response to an expanding number of motorized recreational vehicles and to an active Timber Harvest Program. Often, different uses have occurred on the same trails with minimal conflicts. But, the diverse demands for, and uses of the County Forest have reached the point where an integrated Access Management Plan is needed. The Plan should conscientiously address the following areas:

- User conflict between groups: snowmobiling versus cross-country skiing; hunting on foot versus use of vehicles for access to game populations; biking versus hunting, etc.
- Safety: pleasure riding of horses on the same trail with ATV vehicle traffic, or hiking.
- Erosion: soils eroding due to use, or over-use by vehicles.
- Damage to access: rutted or impassable roads requiring costly repair by the County or other specific user groups.
- Litter: depositing garbage and waste on the County Forest.
- Over-utilization of a resource: ruts, sediment on trails and little or no ground vegetation - e.g. vehicles allow easy access of people and gear (tree stands and bait) to remote areas of the Forest, excessive harvest of ruffed grouse along trails.
- Crowding: complaints about intensified competition as a result of better access from road and trail development.
- Fires: increase exposure of the resource to forest fire occurrence.
- Endangered species management: identification and protection of endangered plant and animal species.
- Invasive species: protection of the resource due to the introduction and presence of invasive species along travel routes and waterways.
- Developmental trends: managing access for preservation of County Forest solitude by limiting access versus development of high intensity use by additional roads, trails and unlimited access.
- Road placement, design and sustainability: some roads should be closed because of improper location and evaluated for replacement.
- Clear and concise policy for the public: an Integrated Access Management Plan is developed jointly by the County Forestry Committee, County Forest Administrator and Department of Natural Resources (DNR), with input from the general public for implementation.

705 MANAGEMENT BLOCKS

The Sawyer County Forest consists of seven (7) blocks of Forest comprising approximately 114,000 acres. They are located in different parts of the County and each has a different set of soil types. Because of the difference in soil types, amounts of lowland areas, and other factors, there may be different access proposals developed for each block.

- Nelson Lake Block
This block is generally a clay-silt-loam soil. The predominant timber types are maple, basswood, mixed hardwood and aspen. The topography is generally flat with many lowland areas. Logging is done mainly in the winter months over frozen ground. When the logging is completed on most tracts, the access road will be closed with an earthen berm. In certain circumstances, if it is determined the access road is suitable to be left open, then the Forestry Department may decide to leave it open to the public, or gate it so it could be mowed. A number of roads have been left open, but are not drivable when the ground is not frozen. These roads are slowly growing shut. Other roads have been left open as access roads for recreational use.
- Seeley Hills Block
This block has generally a sandy loam soil type. Timber types are mostly of the oak, aspen and pine types. Topography is rolling to hilly. Because of the hills, logging is more of a summer activity. Very few wetlands exist in this block. Sawyer County had a CCC Camp located near Little Smith Lake, south of Telemark. These workers created many fire lanes through this block of County Forest. Because of them, the public has always had very good access to this block. The distance between roads at this time is generally less than one (1) mile in any direction.
- Sissabagama Block
This block generally has sandy loam type soils. The predominate timber types are oak and aspen. The topography is generally rolling. This block contains a number of wetlands and also a number of small pothole lakes. This is a long, narrow block.
- Edgewater Block
This block has soils that are mostly loamy to sandy loam. The timber types vary from maple and basswood to oak and aspen. The area is somewhat hilly with many lowland wet areas at the bottom of the hills. Stoney Hill Road and Zettel Road split the block leaving almost no areas over a mile from a road.

- Couderay Block
This block has soils that are loamy to sandy loam. This block has a wide variety of topography including extensive flat, poorly drained areas and rolling topography including steep erodible slopes. The timber types vary from oak and aspen to balsam and aspen.
- Draper Block
This block has soils that are mainly clay loam. The timber types are mainly maple and basswood with patches of aspen and balsam. The block contains many wetlands so most timber cutting is done when the ground is frozen. This area may not be suitable for a year around ATV trail.
- Winter Block
This largest block of the County Forest has soils that fit mostly in the clay loam category. The timber consists of maple, basswood and aspen. The terrain is relatively flat with many wetlands and tributaries. Some highland timber areas could be cut during the summer months if they adjoin a township road. The majority of timber cutting is done when the ground is frozen.

710 BEST MANAGEMENT PRACTICES

The layout and construction of any new road or trail situated on the County Forest shall adhere to *Wisconsin's Best Management Practices for Water Quality* (PUB-FR-093-95). This Access Management Plan addresses the need and diversity level of Forest roads and trails within the County Forest. Chapter 6 of the BMP Manual provides guidelines for road construction. Areas with highly erodible soil types, close proximity to streams or lakes, or steep slopes are identified on the erosion susceptibility map included in Chapter 900. Soil disturbance activities in these areas may require mitigating measures in excess of those currently listed in the Best Management Practices Manual PUB-FR-093-95. Wide buffers, sediment control structures and water diversion techniques will be used as appropriate in these sensitive areas.

*NOTE: The Best Management Practices for Water Quality, as they relate to trail construction and maintenance, are currently being refined and revised along with technical standards for trail construction. Once complete, a reference will need to be added to indicate where the standards and practices can be found. **NOT REVISED YET.***

715 FOREST ROAD AND RECREATIONAL TRAIL CONSTRUCTION AND MAINTENANCE

Sawyer County Forestry staff will oversee the construction and maintenance of all roads and trails within the County Forest. These roads/trails may be constructed and maintained by the County and/or private contractors working under County supervision, other public resource agencies and in cooperative agreements with non-profit organizations. The specifications for road/trail construction and maintenance may vary with the frequency, duration, and planned use of each road/trail.

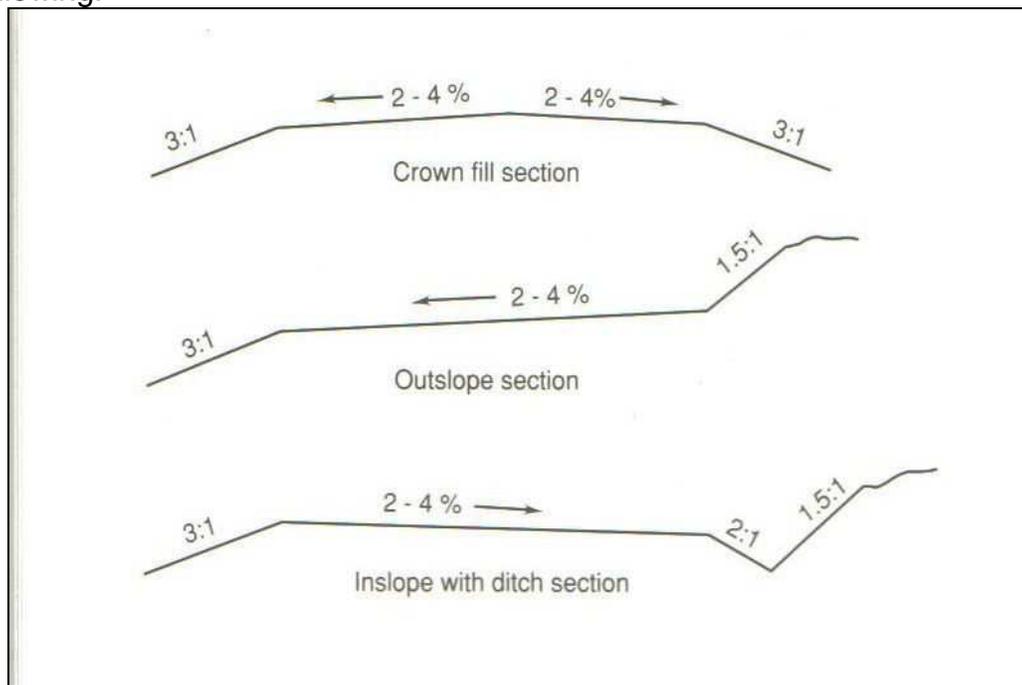
715.1 SUSTAINABLE ROAD/TRAIL DEFINITION

A sustainable road/trail is:

- Located, designed, and constructed to shed water effectively from the surface of the road/trail without causing damage or erosion to the road/trail surface or to the surrounding area.
- Road/trail can also be maintained in an environmentally, and socially acceptable condition for its designed purpose with a minimal, reasonable and affordable maintenance schedule.

715.2 ROAD/TRAIL SPECIFICATIONS AND DESIGNS

All new roads/trails will be constructed in accordance with standards outlined in Wisconsin's Forestry Best Management Practices for Water Quality Handbook. All new roads and trails will be ditched and crowned as shown in the figure following.



New road/trail establishment will consider information identifying areas with sensitive soils and/or severe slopes that have the potential for adverse water quality and/or erosion impacts from land management practices. County Forestry staff will work with the local Department of Natural Resources (DNR) water resources staff to develop site-specific measures when appropriate. New roads/trails will be classified, at the time of construction, as one of the three major road/trail types described in this Chapter.

715.3 SAWYER COUNTY RUTTING POLICY/EXCESSIVE SOIL DISTURBANCE - FOREST ROADS AND RECREATIONAL TRAILS

These standards are required for Forest Certification. The same standards will be applied to both forest roads and recreational trails.

715.3.1 Rutting Standards

Soil compaction and rutting can reduce the productivity of a site, disrupt surface drainage and infiltration, and contribute to erosion and sedimentation. Compaction occurs over broad areas, but does not necessarily result in visible depressions. Ruts are depressions, such as furrows or trenches, created by breaking through the forest floor.

715.3.2 Guidelines

- Existing road/trail systems will be utilized when environmentally appropriate.
- The Forest Administrator will have final approval in designating the location of roads/trails, landings, and skid trails, and may consult with other County and DNR staff.
- Wisconsin Forestry Best Management Practices for Water Quality (BMP's) and this Plan will be followed during all phases of the timber sale to prevent or reduce erosion and sedimentation to surface waters and wetlands.
- Expanding the footprint of roads/trails, landings, and skid trails to maneuver around wet or muddy areas that develop during use is prohibited unless authorized by the Forest Administrator.
- It is expected that appropriate measures will be taken to prevent excessive rutting. If excessive rutting occurs, the forestry/trail operations will be suspended.
- The Forest Administrator may modify standards in this policy if modifications provide equal or greater soil and water protection. Depending on site conditions, rutting standards may need to be more restrictive or flexible. Details of and justification for modifications must be documented in the road/trail plan, timber sale narrative and timber sale field notes.

715.3.3 Standards

715.3.3.1 Forest Roads

- Rutting is prohibited on forest roads/trails within a riparian management zone (RMZ). New forest roads/trails are to be located outside of RMZ's, except at stream crossings.
- In wetlands, a rut on a forest road/trail may not exceed fifty (50) feet in length with depths of six (6) inches or greater.
- In uplands, a rut on a forest road/trail may not result in channelized flow into a wetland or water body.
- Other ruts are acceptable provided it is shown that they can and will be repaired prior to final sale close out.

715.3.3.2 Mountain Bike Trail Standards

- Refer to International Mountain Bike Association publications - "Building Better Trails" and "Trail Solutions"

715.3.3.3 Landings

- Landings are prohibited in wetlands unless the timber sale is located in a large wetland complex without suitable upland landing sites. Wetland landings may only be used during frozen ground conditions. Details of and justification for modifications must be documented.
- In uplands, a rut on a landing may not result in channelized flow into a wetland or water body.
- Other ruts are acceptable provided it is shown that they can and will be repaired prior to final sale close out.

715.3.3.4 Skid Trails

- Ruts with depths of six (6) inches or greater may not exceed a total of twenty-five (25) feet in any one hundred (100) feet.
- Total rut length on skid trails may not exceed ten (10) percent of the total length of skid trails.

715.3.3.5 General Harvest Area

- The rutted area for an acre of general harvest area may not exceed five (5) percent (six (6) inches or deeper).
- The average rutted area per acre may not exceed two (2) percent of the total harvest area.

715.3.3.6 Measurements

- **Forest Road Rut Length** is determined by measuring the length of ruts with depths of six (6) inches or greater.
- **Skid Trail Rut Length** is determined by measuring the total length of ruts and dividing by the total length of skid trails. The length of rut made by each wheel or track is measured separately.
- **General Harvest Area Ruted Area** is determined by measuring the length and width, in feet, of ruts greater than six (6) inches in depth, in an acre of harvest to determine square feet of ruted area. This total is divided by 43560.

Classifying a soil disturbance as "excessive" does not mandate closing of a forest/road trail; however, actions should be taken, as appropriate, to minimize further soil disturbances. If a forest road/trail has soil disturbances that exceed the excessive threshold, then the expectation is that the contractor/trail steward will contact the Forest Administrator (or vice versa) and together they will evaluate the disturbance and determine what actions, if any, are needed to repair or mitigate the effects of the disturbance.

715.4 FOREST ROAD CLASSIFICATIONS

Four (4) types of forest roads occur on the County Forest: 1) Permanent primary roads; 2) Permanent secondary roads; 3) Temporary Roads; and 4) Obsolete Roads.

715.4.1 Permanent Primary Roads

Primary roads are designed, constructed and maintained for year round use according to State Town Road standards and may be considered for County Forest Road Aid payment. These roads serve as essential arteries and are located to facilitate multiple use management. At this time, Sawyer County has no roads that fall in this category. As funding allows, roads will be prioritized to be considered for upgrades to primary roads and potentially County Forest Roads.

715.4.2 Permanent Secondary Roads

Secondary roads are roads maintained as part of a permanent road system, but are generally narrower than primary roads (10-14 foot drivable surface) resulting from logging operations that are integrated into the

County system. These roads are maintained as needed and primarily for multiple use benefits, including Forest Management, Wildlife Management, fire protection, and/or general public recreation. In general, these roads are secondary arteries leading from town roads. Some are maintained for public travel, others are restored after use and closed to motor vehicle travel.

715.4.3 Temporary Roads

Temporary roads are almost always used for timber management purposes. They are generally short segments of roads designed and constructed for short-term use and when the activity is completed, these roads are closed AND reclaimed in accordance with the timber sale prospectus and contract. These roads are naturally or artificially revegetated and may be closed by use of earthen berms or other physical barriers.

The need for temporary new roads will be evaluated on a case-by-case basis and will be permitted only when approved and designed as part of a timber sale prospectus or under other special circumstances. Consideration will be given to the objectives within each County Forest Block, existing road density, potential use, soil type and other nearby roads. New trails constructed as temporary roads should be closed and reclaimed in order to keep road densities on the forest from increasing.

715.4.4 Obsolete Roads

Scattered throughout the Forest are numerous old roads and trails, constructed for timber harvest, that are no longer suitable for future use. Many of these roads and trails were initially constructed for frozen ground conditions. Roads and trails categorized as obsolete may have been designed poorly, located in unsuitable locations, have a high risk of erosion, or may impact water quality.

The intent of the Obsolete Road classification is to gradually remove these roads from the County Forest and return them to forested settings. Once classified as obsolete, the roads should be removed from the trail inventory. A separate list of these roads should be maintained for the purpose of monitoring the status of the reclamation or restoration, and to assure that these roads are not designated for forest management or recreational use.

Obsolete roads should be closed to motor vehicle use including timber harvest activities. Roads should also be reclaimed whenever possible,

including repair of any rutting, erosion control problems, and water quality issues.

Criteria for consideration of an obsolete road will include any or all of the following:

- Steep slopes
- Soils with a high potential for erosion
- Streams or wetland crossings
- Drainages that could deliver silts and sediments into nearby streams or lakes
- Road does not serve any future management purpose
- Management area can be accessed using other, more acceptable roads
- Environmental, cultural, social, or other factors would benefit by abandonment

715.5 FORDS

The County Forestry Department has found that culverts typically require a high degree of maintenance, especially on those trails open to public motor vehicle travel. The County began to test rock ford crossings during the late 1990's. A ford crossing is constructed by replacing stream bottoms with four to eight inch (4-8") rocks, while maintaining the original elevation of the stream bottom. This allows traffic to cross through the water without causing erosion or sedimentation. The following are ford crossings in use on the County Forest:

- Cold Brook - SW:NE of Section 5, Township 42 North, Range 9 West
- Unnamed stream in the NE:NW of Section 24, Township 37 North, Range 5 West

715.6 ACCESS ACROSS PRIVATE LANDS

It is often necessary to cross private or other lands in order to conduct forest management activities. Whenever an access point across other lands will be repeatedly needed, the Forest Administrator shall make a reasonable effort to attempt to secure an Easement deeded to the County for forest management purposes. These easements shall be requested for official use only with firm language outlining the County's responsibility to repair any damages that occur as a result of a timber management activity conducted by the County or designee. These easements may be purchased at the discretion of the Forestry Committee.

In cases where adjoining landowners are willing to allow access, but are not willing to grant an easement, or the access will be infrequent, a letter of agreement should be executed.

720 ROAD AND TRAIL DESIGNATIONS

Any road or trail on the County Forest may be used for forest management activities (e.g. timber harvesting, timber sale establishment, etc.) with prior approval from the County Forest Administrator.

Every road and trail on the County Forest has been inventoried, numbered and designated with classifications as to the type of allowable or restricted use. No undesignated roads or trails are part of the road inventory and classification. There are three major classifications of roads and trails on the County Forest. As part of these major classifications, there are also several designations within each class. They are defined as follows:

720.1 OPEN ACCESS

Road is open to all motor vehicle travel, provided the vehicle is either a state licensed or state registered vehicle.

720.1.1 Open Access (Forest Road)

Road is designated as a forest road. Open to all motor vehicle travel, providing the vehicle is either state licensed or state registered.

720.1.2 Open Access (ATV/Snowmobile Trail)

Road is designated as an ATV/Snowmobile trail but is open to all motor vehicle travel as defined in the Open Access classification.

720.1.3 Open Access (ATV/Snowmobile/Mountain Bike Trail)

Road is designated as an ATV/Snowmobile/Mountain Bike trail. Open to all motor vehicle travel as defined in the Open Access classification.

720.1.4 Open Access (Snowmobile)

Road is designated as a snowmobile trail, open to all motor vehicle travel as defined in the Open Access classification.

720.1.5 Open Access (Mountain Bike)

Road is designated as a mountain bike trail. Open to all motor vehicle travel as defined in the Open Access classification.

720.2 LIMITED OPEN ACCESS

Open to state licensed vehicles only, and snowmobile use when ground is snow covered. Restricts the use of ATV's (LUV's) except for big game retrieval as outlined in Section 750.2.3.

720.2.1 Limited Open Access (Forest Road):

Road is designated as a forest road. Open to state licensed vehicles only, and snowmobile use when ground is snow covered.

720.2.2 Limited Open Access (Snowmobile)

Road is designated a state funded snowmobile trail. Open to motor vehicle travel as defined in Limited Open classification.

720.2.3 Limited Open Access (Mountain Bike)

Road is designated as a mountain bike trail. Open to motor vehicles as defined in the Limited Open classification.

720.2.4 Limited Open Access (Motorized Recreational Exclusive)

Road/trail is designated motorized recreational exclusively, to include:

720.2.4.1 ATV/Snowmobile Exclusive

Designated trail open only to state registered ATV and Snowmobile use.

720.2.4.2 Snowmobile Exclusive

Designated trail open only to state registered snowmobile use.

720.2.4.3 ATV Exclusive

Designated trail open only to state registered ATV use.

720.3 CLOSED ACCESS

Road is open to non-motorized access only.

720.3.1 Closed Access (Forest Road)

Road is designated forest road open only to non-motorized traffic.

720.3.2 Closed Access (Hunter Walking Trail)

Road is designated Hunter Walking Trail, open only to non-motorized traffic. Use of non-motorized wheeled vehicles (with the exception of game retrieval carts) is prohibited from September 15 to December 31 of each year. Trail is maintained and mowed periodically.

720.3.3 Closed Access (Recreational Exclusive)

Trail is maintained as non-motorized recreational trail exclusively to include:

720.3.3.1 Single Track Bicycle Trails

720.3.3.2 Ski Trails

Refer to maps of County Forest blocks or master list of roads detailing designated roads and trails in map section.

720.4 SIGNAGE

In order to communicate to the public the designations of uses on forest roads and trails, signs will be posted as to the uses allowed. The roads and trails will be signed as follows:

720.4.1 Closed Access

Either signed as closed, or road/trail will be gated or bermed.

720.4.2 Open Access

Road/trail will be signed with a BLACK ATV sign. State funded ATV/Snowmobile trails are signed with BROWN ATV/Snowmobile signs.

720.4.3 Limited Open Access

Will remain unsigned.

All recreational designated roads/trails will be signed with the corresponding trail designation.

In addition, maps will be available online at the Sawyer County website and at the Forestry Office for all County Forest Blocks detailing road/trail designations. Informational signs will be erected at major County Forest access sites.

725 RECREATIONAL TRAIL ACCESS

These trails provide access for many recreational opportunities on the County Forest. An important role of the County Forest is to provide sustainable recreational trails that cause minimal long-term natural resource damage, and provide a quality recreational experience for the user. Trails may be temporarily or permanently closed or relocated by Forestry Administrator/Forestry Committee decision for the protection of the forest environment and/or protection of the users.

All of the recreational uses of the County Forest have corresponding maps in Chapter 900:

- Snowmobile/ATV trail map
- CAMBA trail map
- Seeley Hills Ski and Bike trail map
- Hatchery Creek Park map
- American Birkebeiner Ski Trails maps
- Hunter/walking trail maps

Trail use by organized events must go through a County application process.

- A per entrant fee will be assessed if there is a sponsor charge to enter the event.
- Organized trail events and group-sponsored activities must protect Sawyer County with a minimum of a one million (\$1,000,000) dollar liability insurance coverage. The group must provide a Certificate of Insurance as proof of coverage that shows Sawyer County as additionally funded.
- Each permit application will be submitted to the County Forest Administrator and the Forestry Committee will be responsible for the review and approval/denial of each trail use permit.
- The trail steward of each trail system will be advised and consulted for each application.
- The safety of others and the environmental impact of the trail system and infrastructure will be two (2) important criteria for approval.
- A separate account will be set up to collect the funds (other than Birkie Trail Usage) to be used for repair/maintenance on said trail.

725.1 ROAD AND TRAIL CLOSURES

725.1.1 Seasonal Closure

Forest roads and trails will be closed to all vehicles (motorized and non-motorized) from April 1st to May 15th each year. The Forest Administrator has the authority to open or close trails and to extend or shorten the closure period. (A common goal of surrounding counties and state ownership is to develop a uniform closure period for the area for the benefit of tourism and trail users. Every attempt will be made to enact closures that are consistent and acceptable to municipalities in the surrounding areas).

During years of very high fire danger, road and trail closure may be extended or implemented. Roads and trails will be closed to protect road and trail surfaces to ensure their sustainable use, and to protect wetlands and waterways. Road and trail surfaces are at much greater risk to damage during this time period due to ground frost conditions, spring runoff, ponded/standing water, and saturated soils. The following vehicles will be exempt from the closure period:

- Snowmobiles and snow grooming equipment
- County and State vehicles performing assigned duties.
- Logging equipment on a site-specific basis if pre-approved by the Forestry Committee
- Emergency vehicles
- Maintenance vehicles with prior approval of the Forest Administrator.
- Other needs as brought to the attention of the Forestry Committee.

As roads and trails are built to sustainable standards, they may be left open year round at the Forestry Committee's discretion. ATV trails will be classified as sustainable if they fit the definition and are capable of being maintained within the allowable grant funding per mile (\$450/mile) for general maintenance. The Nine Mile Loop (9-Mile Loop), Trail #11, is open year around on a trial basis.

725.1.2 Additional Closures

Trail use may be temporarily or permanently closed and/or relocated for the protection of the Forest environment and/or protection of the users. The County Forest Administrator may temporarily close any road or trail for a period of 45 days, for the safety of the users and to limit environmental damage until the Forestry Committee can make a formal decision on a course of action.

730 RESTRICTED ACCESS AREAS

In addition to providing trails for wheeled vehicle use, the County Forest may also provide and designate restricted areas within the County Forest Blocks where motorized equipment is not permitted unless authorized by the Forestry Committee. The principle intent of restricting access shall be to prevent environmental damage to sensitive areas, protect historical or archeological sites, protect endangered and threatened species, provide for human safety and provide areas for quiet, secluded recreation.

735 RECREATIONAL TRAIL CONSTRUCTION AND MAINTENANCE

Requests for recreational trails must be reviewed and approved by the Forestry Committee. Groups requesting specific trail development or use must present a plan for the long-term funding and maintenance of proposed trails.

735.1 RECOMMENDED PROCESS REGARDING REQUESTS TO CONSTRUCT AND/OR MODIFY RECREATIONAL TRAILS

- Present concept, area, rough location and design to the Sawyer County Forest Administrator for approval to layout and flag.
- Physically layout, flag and GPS trail.
- Present plan to Forest Administrator for preliminary review to determine if plan is consistent with Forest Plan.
- Present plan to Forestry Committee and must be approved by County Board. Details of plan are to include the trail purpose, potential use, specific location and route, phases, who, how and when to build and maintain, and how funded.
- Periodically update the Forest Administrator and Forestry Committee on the progress of the current phase(s) and before the next or additional phases are begun.

735.2 CONSTRUCTION

Construction of any recreational trail in which the activity would increase erosion potential of one (1) acre or more of land is subject to State and Federal Storm-water runoff requirements (NR 216), Wis. Admin. Code and s. 283.33, Wis. Stats. Construction or development for silvicultural purposes is presently exempt from these requirements. Recreational trail development in Sawyer County that meets these parameters will employ Best Management Practices for Water Quality (PUB-FR-093-07 Rev., Wisconsin's Forestry Best Management Practices for Water Quality) to mitigate any adverse impacts. In addition, an Erosion

Control Plan will be prepared for each project depicting the location of the project and surrounding wetlands and what erosion control measures will be employed and submitted to the DNR (Department of Natural Resources).

740 OFF-ROAD OR OFF-TRAIL RECREATIONAL USE BY VEHICLES

The intent of this section is to prohibit the "off-road" or "cross-country" use of all vehicle types.

Prohibited: Operation or use of all motorized and non-motorized vehicle types (including bikes) on the Sawyer County Forest is prohibited everywhere unless:

- The vehicle is being used on a "designated" road or trail approved by the Forestry Committee, and the vehicle type is listed in this Chapter as an allowable type for that specific designated road or trail type, or
- The vehicle is a non-motorized type of hand-pulled cart and is designed for and being utilized for carting/removal of large game from the forest, or
- County or State employees in the performance of their job duties, or
- By permission from the Forest Administrator for special circumstances.

745 DESIGNATED NON-MOTORIZED RECREATIONAL TRAILS

Trail use may be temporarily or permanently closed and/or relocated for the protection of the Forest environment and/or protection of the users.

745.1 HIKING TRAILS

- American Birkebeiner Ski Trails
- "OO" Nordic Ski Trails
- Hatchery Creek Park Trails
- Seeley Hills Ski Trails
- Single track mountain bike trails

All areas of the County Forest are open to hiking or foot travel unless marked with signs closing the area. Closure to foot travel will normally not occur except in special circumstances such as erosion control projects, or for management activities that may endanger public safety.

745.2 BICYCLE TRAILS

- Mountain bike trails
- Seeley Hills mountain bike trails
- Single track mountain bike trails

All trails and roads are open for recreational bicycle use, except Hunter/Walking Trails which are closed from September 15th through December 31st of each year. Off-trail mountain bike use is not permitted.

Allowable Uses for Single Track Trails: hiking, biking, snowshoeing, hunting, etc.

Restricted Uses for Single Track Trails: motorized vehicle, horseback riding.

745.3 HUNTER/WALKING TRAILS

Hunter/Walking trails are found in these blocks. See map in Chapter 900. Trails are mowed periodically.

- Birchwood Block
- Totogatic Flowage/Nelson Lake Block
- Seeley Hills Block
- Couderay/Weirgor Block
- Sissabagama Block
- Winter Block
- Draper Block

Allowable Uses: Hunting, hiking, berry picking, etc. Non-motorized vehicle use allowed other than hunting seasons.

Restricted Uses: Wheeled vehicles of any kind will not be allowed during hunting seasons (with the exception of non-motorized big game retrieval carts) - the period being September 15th through December 31st of each year.

745.4 CROSS-COUNTRY SKI TRAILS

- American Birkebeiner Ski Trail
- Hatchery Creek Park Trails
- Seeley Hills Ski Trails

NOTE: Dogs are not permitted on the Birkie Trails or Hatchery Creek Trails once the trails are snow covered and groomed.

Allowable Uses: Cross-country skiing, biking, hiking, hunting, berry picking, etc.

Restricted Uses: Ski-jouring, dog sledding, horseback riding, motorized vehicle use.

745.5 HORSEBACK RIDING TRAILS

Sawyer County currently has no designated trails for horseback riding.

All trails and roads within the County Forest are open for horseback riding with the exception of designated cross-country ski trails and single track bicycle trails. Off-trail horseback riding is not permitted. Horseback riding may be further restricted, by amendment to the Sawyer County Owned Land Ordinance, if erosion and other environmental damage begins to occur.

750 **MOTORIZED RECREATIONAL TRAILS**

The use of motorized vehicles on the County Forest continues to increase. The design, maneuverability, and power of the vehicles have improved to the point where they are capable of operation and, often are operated across every type of terrain on the Forest. This has led to more widespread and greater use, increased trail use conflicts, environmental damage, and increased expenses for trail maintenance. Additional regulation restrictions on these motorized vehicles (e.g. trucks, ATV's, dirt bikes, motorcycles, LUV's, etc.) is needed to protect the County Forest and limit adverse impacts on non-motorized areas.

750.1 SNOWMOBILE TRAILS

Two (2) types of groomed snowmobile trails are authorized on the County Forest: 1) State-funded trails; and 2) Local club trails. Snowmobile trails are located both on and off County Forest land. Annual agreements outline the operation, maintenance, and insurance obligations between Sawyer County and the Sawyer County Snowmobile/ATV Alliance. Changes to designated trails within the Sawyer County Forest must come before the Forestry Committee for approval.

Allowable Uses: Snowmobiles must be registered.

Restricted Uses: Snowmobile trails are closed to vehicles over 900 pounds once trails are groomed.

Sawyer County does not officially open or close the snowmobile trail system. Trail use is at your own risk. People are urged to call the Sawyer County Forestry Department or the Chambers of Commerce to get updates on trail conditions.

750.1.1 State-Funded Trails

A system of approved and funded snowmobile trails is authorized on designated trails and forest roads. This system is part of the statewide network of snowmobile trails which links Sawyer County with adjoining

Counties as well as the rest of the State. Snowmobile registration and out-of-state user fees are used to support trail development, signing, maintenance, grooming and bridge construction.

750.1.2 Local Club Trails

A smaller network of local club-sponsored snowmobile trails is also permitted on designated trails and logging roads. Maintenance of these trails is supported by club membership fees and fundraising activities.

750.1.3 State Funded Snowmobile Trails - 334.8 miles in Sawyer County

- Bayfield/Frog Creek Trail - 20.5 miles
- Blueberry Trail - 8.7 miles
- Chetac Trail - 8.0 miles
- Nine Mile Loop/Exeland Trail - 18.2 miles
- Dead Horse Connector Trail - 8.6 miles
- Fish Trap Trail - 6.0 miles
- Fish Trap Trail North - 13.0 miles
- Fish Trap Trail - 13.5 miles
- Grade Trail - 3.0 miles
- LCO Connector/Little Round Trail - 11.8 miles
- Loretta Draper Trail - 6.0 miles
- Lost Land Lake Trail - 14.5 miles
- Moose Lake Trail - 12.0 miles
- Moose Lake/Ghost Lake Trail - 12.0 miles
- Musky Tale Trail - 8.5 miles
- Ojibwa Trail - 14.0 miles
- Rusk County Trail - 5.0 miles
- Seeley Connector - 6.9 miles
- Seeley Hills Trail - 48.6 miles
- Spider Lake Trail - 5.1 miles
- Stone Lake-Edgewater-Birchwood Trail - 17.0 miles
- Stone Lake/Whitefish Trail - 17.2 miles
- Tally Ho Trail - 7.5 miles
- Trail 40 North - 10.5 miles
- Trail 63 North - 6.5 miles
- Trail 63 South - 6.2 miles
- Tuscobia to Rusk County Trail - 26.0 miles

750.1.4 Undesignated Snowmobile Trails

Undesignated trails are those not approved as part of the official County snowmobile trail system and are not funded under the DNR Snowmobile Aids program. Travel off of a designated snowmobile trail is permitted only on those roads identified as Open Access or as Limited Open Access within the Road and Access Management Plan. No cross-country use is permitted.

750.2 ALL-TERRAIN VEHICLE (ATV) TRAILS

Sawyer County has a number of state-funded ATV trails. See 735.1 for information on how to request construction or modification of trails. See 725.1 for trail closure dates.

The Sawyer County Owned Land Ordinance regulates the use of ATV's on trails not designated as ATV trails and detailed information on open areas and trails contained in the Road and Access Management Plan. The following is a summary of regulations applying to ATV use:

Allowable Uses: ATV's must be registered.

Restricted Uses: Cross-country travel is not permitted. Motorized vehicles are not allowed on roads or trails blocked with earthen berms, piled logging debris, signs, gates, or other closures installed by, or directed to be installed by the County. Motor vehicle travel is allowed only on those roads and trails designated open by the County. No ATV use is allowed from April 1st through May 15th.

750.2.1 ATV Defined

For the purpose of use on County Forest Lands, the definition of an ATV is described in s. 340.01(2g) Wis. Stats. as follows:

- Engine driven device having a new weight of 900 pounds or less
- Width of 48 inches or less
- Seat designed to be straddled by the operator
- Travels on 3 or more low pressure tires
- Tires mounted on a rim with a maximum diameter of 12 inches
- Tires designated to be inflated with a pressure not to exceed 6 psi

750.2.2 State Funded ATV Trails in Sawyer County

- | | |
|--------------------------------------|--------------------------------------|
| ● <u>Winter Trails - 96.3 miles</u> | ● <u>Summer Trails - 81.4 miles</u> |
| Dead Horse Connector - 8.6 miles | Dead Horse Connector - 8.6 miles |
| LCO Day Use Trail - .6 miles | LCO Day Use Trail - .6 miles |
| Louie's Landing - 13.0 miles | Louie's Landing - 13.0 miles |
| Nine Mile Loop - 9.0 miles | Nine Mile Loop - 9.0 miles |
| Phipps to Seeley - 5.6 miles | Phipps to Seeley - 5.6 miles |
| Trail 15/Seeley Hills - 27.0 miles | Trail 15/Seeley Hills - 27.0 miles |
| Stone Lake to Birchwood - 15.0 miles | Stone Lake to Birchwood - 15.0 miles |
| Trail 31 to Barnes - .8 miles | Trail 31 to Barnes - .8 miles |
| Trail 5/3 - 7.0 miles | Island Lake Trail - 1.8 miles |
| Trail 6 - 9.7 miles | |

750.2.3 Big Game Retrieval

No cross-country travel is allowed by motorized vehicles. ATV 's are allowed to use Limited Open trails for big game retrieval providing that:

- 1) No firearms are in possession
- 2) One ATV with maximum of 2 people
- 3) Animal must be tagged prior to entry

750.3 OTHER MOTORIZED RECREATIONAL VEHICLE TRAILS

As other grant and funding opportunities become available for funding and maintenance of both winter and summer use off-road vehicle (ORV) or motorcycle (MC) trails systems, the Forestry Committee may choose to consider these trail opportunities at that time. This trail network would permit ORV or MC use only on this designated trail system. State funds may be available to support trail construction and maintenance. The Forestry Committee may enter into agreements with clubs or organizations for the responsibility of signing and maintenance of these trails. This trail network may involve a combination of both public and private lands.

Currently, two-wheel motorized travel (mini-bikes, dirt bikes, motorcycles) are not permitted anywhere on the County Forest with the exception of state licensed, street legal motorcycles on roads and trails open to motorized access.

750.3.1 LUV's (Lightweight Utility Vehicles)

The use of LUV's on the County Forest will be considered at the end of the two (2) year pilot project scheduled to end in September 2009. Currently, Sawyer County is participating in a pilot project to evaluate the effects of LUV's on state funded ATV trails.

755 RECREATIONAL TRAIL SIGNS

The Wisconsin Department of Natural Resources (DNR) Trail Signing Handbook will be used as the guide for posting standardized signs and will assist in promoting uniformity for trail signing through the County. Only trail signs that provide information for safety, regulations, or trail directions will be permitted.

Signs on the County Forest will be used discreetly to perform and function with minimal disruption to the multiple uses of the County Forest. Private signs promoting personal, commercial, or political objectives will not be permitted without authorization from Sawyer County. Private directional business signs must conform to design standards. All trail signs must be mounted on posts, not trees, and follow DNR trailing signing

guidelines. Signs erected by the County for management purposes or by non-profit recreational trail groups will be as follows:

- Informational type signs
- Interpretive Signs - to educate the general public about Forest Management Practices
- Public Land Signs - to identify the land as Sawyer County Forest property
- Trail Markers - to provide direction and safety to trail users
- Scientific, Historical or Geological Markers - to identify points of interest
- Recreational Facility Markers - to identify park entrances, etc.
- Directional Markers
- Regulatory Type Signs - to regulate the use of the County Forest in specific areas

755.1 SIGNING STANDARDS

To assure that signs will serve a purpose without damaging aesthetics, the following standards will be maintained:

- All signs will be mounted on posts - not trees.
- Signs will be of neat appearance.
- Signs on trails must conform to any applicable snowmobile, ATV, bike, etc. state standards and be approved by the Forestry Committee.
- All authorized signs shall be protected by the Recreational Sign Ordinance from being damaged, defaced, obstructed, removed, or possessed by unauthorized persons.
- All unauthorized signs will be removed by the County Forestry and Department of Natural Resources (DNR) staff. No compensation will be afforded for loss or damage to signs during removal.
- Individuals erecting unauthorized signs may be prosecuted under s. 943.13(3), Wis. Stats.

760 RECREATIONAL TRAIL STEWARDS

The maintenance/grooming of these designated trails will be assigned to local stewards of the trail that the County has granted the responsibility of trail management and maintenance. The past responsibility for the historical development and the current maintenance of these specific trails will be the criteria for granting stewardship of these trail systems. Assigned stewards of these trails must show ability and want for the maintenance of these trails. A management plan must be submitted to the Forestry Committee every five (5) years for review and approval. Infrastructure improvement and trail maintenance projects must be approved on an annual basis.

Definition: A **Recreational Trail Steward** is a cooperating group, club, organization or individual that is **appointed** bi-annually by the Forestry Committee to manage a defined trail system for which the Committee is responsible for oversight and management.

Purpose: The purpose of appointing Trail Stewards shall be to facilitate efficient management of recreational trails by individuals or groups not employed by Sawyer County for the benefit of the general public, specific trail users, and the protection of the environment.

Application: Individuals or organizations shall apply bi-annually to the Forestry Committee by May 15th of even-numbered years to be considered for appointment as a Trail Steward for a specific trail system. Individuals or organizations wishing to become or continue as a Trail Steward shall complete a written application supplied by the Forestry Committee.

Written Trail Management Plans: Trail Steward applications shall include a new or updated written management plan and map (GPS accurate +/- 50 feet) for the trail system. The new or updated written management plan shall become a part of this plan and placed in Chapter 900.

Appointments: Trail Stewards serve at the pleasure of the Forestry Committee and their appointment is contingent upon a majority vote of approval by the Committee.

Authority, Expectations and Responsibilities: Trail Steward applications shall define expectations, responsibilities, and authority of the Steward and of the Forestry Committee. The Forestry Committee shall retain all authority assigned to it by Federal, State and County law. The Forestry Committee may assign complete or partial responsibility to Trail Stewards for management of a trail system. Responsibilities, expectations and any temporary authority the Committee may retain or assign to a Trail Steward shall be clearly defined in the Trail Steward application. This delegation of responsibility does not imply any financial commitment or support by the County.

765 WATER ACCESS

As a result of the wide distribution of lakes, streams, rivers, and other surface waters on the County Forest, water access may be planned, developed, or restricted as a component of the overall County Forest Access Management Plan. Several boat landings, canoe landings, and adjacent roads currently provide water access on the County Forest primarily for recreational activities. In addition, these water access points also provide water supply points for fire apparatus working to suppress forest fires or nearby structures. The existing water access points will be maintained to provide a place to launch a small fishing boat, canoe or kayak. Not all watercraft will be able to

use these access points. These landings were built for public use and not for private boat mooring sites. Mooring or storing boats for longer than twenty-four (24) hours is prohibited.

765.1 PUBLIC BOAT ACCESS SITES MAINTAINED BY TOWNS

- Etlingers Landing on Nelson Lake
- Smith Lake
- Price Dam Road on Lake Winter

All new sites for developed water access must be reviewed and approved by the Forestry Committee.

765.2 UNDEVELOPED WATER ACCESS POINTS

Other undeveloped water access points for canoes and boats currently exist on the County Forest. These are used routinely to hand launch boats, canoes or kayaks but have not been developed for boat trailer launching. These sites are not routinely maintained and may be closed if erosion damage becomes severe.

- Weirgor Lake
- Camp Smith Lake
- Green Lake
- Horseshoe Lake
- Zettel Lake
- Heron Lake

All new sites for undeveloped water access must be reviewed and approved by the Forestry Committee.

770 WILD LAKES

The surface waters encompassed under the Wild Lakes designation include those restricted use areas that are not open to any gasoline-powered vehicles, watercraft, or snowmobiles - except when snow covered. In general, all or most of the shorelines of these lakes and streams are owned by Sawyer County. Counties may request that townships, under authority of s. 30.77(3), Wis. Stats., establish regulations restricting motorized use on these surface lakes. Canoes, kayaks, and boats propelled by wind, oars, or electric motors are permitted. Gasoline or diesel powered equipment is not permitted. The intent of these restrictions is to protect the aquatic resources of these lakes but still allow human access.

775 WETLANDS

In addition to surface waters, all wetlands on the County Forest are closed to motorized recreational vehicle use when soils are not frozen. Vehicle use during non-frozen seasons causes soil rutting, compaction and damage to vegetation. The wetlands are not listed individually here but include all areas where soils, groundwater or surface

waters support the growth of vegetation commonly associated with wetland plant communities.

780 ACCESS TO PRIVATE LANDS

Applications by private parties to build or improve access roads through County Forest land will be considered by the Forestry Committee on a case-by-case basis. The following stipulations will be adhered to before a "Low Use Access Permit" is granted:

- No legal easement will be granted, just permission to cross County lands.
- The permit is non-transferable, unless approved by the Sawyer County Forestry Committee. New landowners must apply to continue the land use agreement.
- Access roadway may not exceed 20 feet in width.
- Road improvements and upgrading must be approved and will be supervised by the Forestry Department staff. Prior notification of three (3) days is required before work starts.
- All wood cut is the property of Sawyer County. Stumpage value will be charged for timber cut to make a road.
- Roadway must be open to the public through County land. No private gates will be erected on County land.
- The County continues full ownership of the improved roadway; however, it shall not be liable for maintenance or upkeep of the road.
- Permittee waives any rights to any declaration of ownership or interest in the road on County land for administrative costs as a result of this "Low Use Access Permit." The access permit is granted upon the Permittee's and Forest Administrator's signatures and any fees being received by Sawyer County.
- The "Low Use Access Permit" shall be written for a five-year (5) period with a five dollar (\$5.00) per year fee. Twenty-five dollars (\$25.00) shall be collected before the permit is signed by Sawyer County. Any changes will be determined by the Forestry Department.
- The Permit may be cancelled by a thirty (30) day written notice should the use interfere with present or future management objectives of the County.

785 PUBLIC UTILITY ACCESS

Access on the County Forest for utility reasons is covered under Chapter 500, Special Uses.

790 RECREATIONAL OPPORTUNITIES ON TRAILS FOR PEOPLE WITH DISABILITIES

The County will comply with the Americans with Disabilities Act regulations in the development and maintenance of any publicly accessible County Forest building or developed facility or intensive use area. If instances are found where this is not the case, procedures for corrective measures will be implemented.

This compliance is not intended to apply to undeveloped areas of the forest; however, the Committee will make every effort to provide recreational opportunities for people with disabilities. As part of this commitment, the County will also provide the following:

- Areas on the County Forest are open to motor vehicle travel on most roads and trails.
- Disabled persons holding a State Class "A" disability permit may receive a permit from the County to operate a motor vehicle in areas designated as Closed Access.
- Disabled persons holding a State Class "B" permit or who wish to request a disability permit and do not hold a State permit, must present such request to the Forestry Committee.

795 RECOMMENDATIONS/FUTURE NEEDS

- *Continue to update and keep current road inventory.*
- *Work with Rusk County and the Town of Winter to develop ATV trail between Winter and Rusk County. Road numbers 53 and 108 have been identified as possible trail connectors. Some town roads in the Town of Winter may need to be designated as ATV routes.*
- *ATV trail connector between Jolly Fisherman Road and Seeley Fire Lane.*
- *Create new miles of ATV trail where trails can be routed off of town roads. Road numbers 170, 176, 179, 427, 429, 433 have been selected as options for this. Additional roads may be identified in the future to accomplish this goal.*
- *Create mountain bike trail connector from existing trail system to Seeley and County Highway 00 and to Bayfield County..*
- *Increase ordinance deposits to a range of \$100-\$400. Look into some of the increase to fund additional enforcement, maintenance, or repair of damages.*
- *Address camping possibilities on County Forest in 2009.*
- *Consider upgrading secondary forest roads to primary forest roads and County Forest Roads as funding allows in order to reduce erosion potential and to keep the trails from being rutted or damaged to the point where they are impassable to most vehicle travel. Several main access roads have been identified as possible options.*
- *Continue road planning and timber sale contract stipulations on all timber harvest operations, including provisions for road closures, and reclamation when appropriate.*
- *Attempt to secure permanent easements or purchase lands necessary to assure timber harvest and public access to the County Forest.*
- *Continue to require and use Best Management Practices for Water Quality on all road and trail projects.*
- *Construct bridges, culvert crossings, boardwalks (paths) and fords as necessary for timber harvest and recreational trails.*

- *Maintain gates, berms and signs that regulate the road and access plan. Signs should be erected at as many of these closure sites as possible to better facilitate public recognition of closure. Effort should be made to ensure that all road closures are physically completed in compliance with the road and access plan.*
- *Apply for recreational grants wherever feasible to supplement maintenance funds on trail systems.*
- *Improve trails open to public motor vehicle access with a priority on those areas where damage is occurring due to high public use, or problem areas identified as part of the GPS classification. Permanent secondary trails should also be given a priority.*
- *Repair access roads to Zettel Lake and Heron Lake to prevent further erosion problems, and improve public access.*

DRAFT
SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 800

INTEGRATED RESOURCE MANAGEMENT

800	CHAPTER OBJECTIVES.....	4
805	INTEGRATED RESOURCE MANAGEMENT APPROACH.....	4
810	SUSTAINABLE FORESTRY.....	5
	810.1 TOOLS IN INTEGRATED RESOURCE MANAGEMENT.....	6
	810.1.1 Compartment Recon.....	6
	810.1.2 Forest Habitat Classification System.....	6
	810.1.3 Soil Surveys.....	7
	810.1.4 National Hierarchical Framework of Ecological Units....	7
	810.1.5 Integrated Pest Management.....	8
	810.1.6 Best Management Practices for Water Quality.....	9
	810.1.7 Forest Fire Management.....	9
	810.1.7.1 Uncontrolled Fire.....	9
	810.1.7.2 Prescribed Fire.....	10
	810.1.8 Outside Expertise, Studies and Survey.....	10
	810.1.8.1 Water Resources.....	10
	810.1.8.2 Wildlife Resources.....	11
	810.1.8.3 Soil Resources.....	11
	810.1.8.4 Mineral Resources.....	12
	810.1.8.5 Wetland Resources.....	12
	810.1.8.6 Navigable Streams.....	13
	810.1.8.7 Floodplains.....	13
	810.1.8.8 Cultural Resources.....	13
	810.1.8.9 Entomology/Pathology.....	13
	810.1.8.10 Endangered Resources.....	13
	810.1.9 Local Silvicultural Field Trials.....	14
	810.1.10 Local Citizen Involvement.....	14
820	BIOLOGICAL COMMUNITY TYPES.....	14
	820.1 FORESTED COMMUNITIES.....	15
	820.2 NON-FORESTED COMMUNITIES.....	17
	820.2.1 Upland Non-Forest.....	17
	820.2.2 Wetlands.....	17
	820.2.3 Open Water Habitats.....	21

830	PLANT COMMUNITIES MANAGEMENT.....	21
	830.1 SILVICULTURE.....	22
	830.1.1 Aspen Management.....	22
	830.2 LOCALLY UNCOMMON TREES.....	23
	830.2.1 Jack Pine.....	23
	830.2.2 American Elm.....	24
	830.2.3 Butternut.....	24
	830.3 TREES LOCALLY DIFFICULT TO REGENERATE.....	25
	830.3.1 Hemlock.....	25
	830.3.2 White Birch.....	25
	830.3.2 Northern Red Oak.....	25
	830.4 EXOTIC PLANT SPECIES OF CONCERN.....	26
	830.5 LEGALLY PROTECTED PLANT SPECIES.....	27
	830.6 OTHER PLANT SPECIES AND NATURAL COMMUNITIES OF CONCERN - NHI.....	27
	830.6.1 Special Concern Plants.....	28
	830.6.2 Natural Communities.....	28
	830.6.3 Special Natural Communities -- "Natural Areas".....	28
	830.6.3.1 Totogatic River Hemlocks.....	28
	830.6.3.2 Osgood Springs.....	29
	830.6.3.3 Camp Smith Lake - Deadman Lakes Natural Pines Area.....	29
	830.6.3.4 Log Creek Drumlin.....	30
	830.6.4 Land Legacy Areas.....	30
840	WILDLIFE SPECIES MANAGEMENT.....	31
	840.1 WILDLIFE RESOURCES.....	31
	840.1.1 Technical Planning.....	32
	840.1.2 Guidelines.....	33
	840.1.3 Inventory.....	33
	840.1.4 Rare and Endangered Resources.....	33
	840.2 RESOURCE MANAGEMENT AND AREAS OF FOCUS.....	33
	840.2.1 General Management Policies.....	34
	840.3 HABITATS OF IMPORTANCE.....	34
	840.3.1 Aspen.....	34
	840.3.2 Jack Pine.....	34
	840.3.3 Forest Openings.....	35
	840.3.4 Lowland Conifer.....	35
	840.3.5 Oak.....	35
	840.3.6 Forest Game Species.....	35
	840.3.7 Forest Non-Game Species.....	36
	840.3.7.1 Neotropical Migrant Birds.....	36
	840.4 LEGALLY PROTECTED ANIMAL SPECIES.....	38
	840.5 OTHER ANIMALS OF SPECIAL CONCERN - NHI.....	39
	840.6 FISHERIES AND WATER MANAGEMENT.....	39
	840.6.1 Technical Planning.....	40

	840.6.2	Water Surveys.....	40
	840.6.3	Population Surveys.....	41
	840.6.4	Lake Management.....	41
	840.6.5	Stream Management.....	41
	840.6.6	Best Management Practices for Water Quality.....	41
	840.6.7	Shoreland Zoning.....	41
	840.6.8	Access and Development.....	42
	840.6.9	Important Water Resources.....	42
	840.6.10	Importance of BMP's to Fisheries.....	42
	840.7	CAMP SMITH LAKE.....	42
	840.8	CAMP SMITH LAKE ACCESS.....	43
	840.9	AERATION PROJECT ON CAMP SMITH LAKE.....	43
	840.10	MANAGEMENT OPPORTUNITIES FOR UNNAMED LAKES.....	43
	840.11	FISH STOCKING.....	44
	840.12	BEAVER MANAGEMNET.....	44
	840.12.1	Riparian Management for Trout Streams.....	44
	840.13	INSTREAM HABITAT RESTORATION.....	44
	840.13.1	Hatchery Creek.....	45
	840.13.2	Mosquito Brook Flowage.....	45
	840.14	RESEARCH OR SURVEYS.....	45
850		LANDSCAPE MANAGEMENT.....	45
	850.1	BIOLOGICAL DIVERSITY.....	45
	850.2	HABITAT FRAGMENTATION.....	46
	850.3	HIGH CONSERVATION VALUE FORESTS/AREA (HCVF) AND EXCEPTIONAL RESOURCES.....	46
	850.4	EXTENDED ROTATION FOREST.....	46
	850.4.1	Presumed Climax Forest Cover.....	47
	850.4	OTHER SPECIAL MANAGEMENT AREAS.....	47
860		INTEGRATED RESOURCE MANAGEMENT.....	47

800 CHAPTER OBJECTIVES

The objectives of Chapter 800 are to:

- Introduce and communicate to the public, the County Board of Supervisors, and to the Wisconsin Department of Natural Resources (DNR), the integrated resource management approach that Forestry, Wildlife and other Natural Resource staff will use on the Sawyer County Forest during this planning period.

805 INTEGRATED RESOURCE MANAGEMENT APPROACH

Integrated Resource Management is defined as: "the simultaneous consideration of ecological, physical, economic, and social aspects of lands, waters and resources in developing and implementing multiple-use, sustained yield management" (Helms, 1998).

This balance of ecological, economic, and social factors is the framework within which the Sawyer County Forest is managed. This broad definition describes the content of everything within this Comprehensive Land Use Plan. Previous chapters have discussed in depth many of the social and economic issues.

For the purpose of this Chapter, the scope of Integrated Resource Management includes:

- Forests, habitats, biological communities
- Wetlands and waters
- Wildlife and endangered resources
- Soils and minerals
- Cultural and historical resources

Management of one resource affects the management or use of other resources in an area. Managing each use or resource by itself is less effective than managing all of them in an integrated way. This is a field level approach to

integrated resource management. Management decisions are made while considering that each site is part of a larger ecosystem. Similarly, the development and implementation of this Plan also considers other planning efforts in order to provide the broader scale management.

The working definition of Integrated Resource Management means, in large part, keeping natural communities of plants and animals and their environments healthy and productive so people can enjoy and benefit from them now and in the future.

The remainder of this Chapter is written to help communicate how the County Forest is managed on an integrated resource approach.

810 SUSTAINABLE FORESTRY

The definition of Sustainable Forestry in the Wisconsin Administrative Code and the Wisconsin Statutes is as follows:

"the practice of managing dynamic Forest eco-systems to provide ecological, economic, social and cultural benefits for present and future generations" NR 44.03(12) Wis. Adm. Code and s. 28.04(1)(e), Wis. Stats.

For the purpose of this chapter, Sustainable Forestry will be interpreted as the management of the County Forest to meet the needs of the present without knowingly compromising the ability of future generations to meet their own needs (economic, social, and ecological) by practicing a land stewardship ethic which integrates the growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water quality, and wildlife and fish habitat. This process is dynamic, and changes as we learn from past management.

810.1 TOOLS IN INTEGRATED RESOURCE MANAGEMENT

810.1.1 Compartment Recon

Sawyer County will support and utilize the Compartment Reconnaissance Procedures as set for by the Department of Natural Resources (DNR) Public Forest Lands Handbook 2460.5. The Department of Natural Resources (DNR) Forester will be responsible for the completion and maintenance of the recon system and will assist in interpretation of the data to be utilized in planning and scheduling resource management.

810.1.2 Forest Habitat Classification System

The Forest Habitat Classification System (*A Guide to Forest Communities and Habitat Types of Northern Wisconsin Second Edition; Kotar, et al.*) is a natural classification system for Forest communities and the sites on which they develop. It utilizes systematic interpretation of natural vegetation with emphasis on understory species.

The Forest Habitat Classification System is an ecological tool that promotes a common language for interpreting site capability based on potential natural vegetation. Its primary use is the assessment of biological potential of Upland Forest sites. Through the application of the Forest Habitat Classification, land managers are better able to assess site potential of current stands, identify ecological and silvicultural alternatives, predict the effectiveness of possible silvicultural treatments, assess feasible management alternatives, and choose appropriate management objectives.

Data will be collected in order to classify the entire Forest. This information should be collected along with, and made part of, the Compartment Reconnaissance System during regular field inspections.

This data should also be compared to soil survey information in order to associate the relationships between Forest habitat types and soil types.

Forest Habitat Classification Types are discussed in greater detail in the "Integrated Resource Management Units" (Section 880) section of this Chapter.

810.1.3 Soil Surveys

Forestry staff's knowledge of Forest ecology and their experience across the landscape can assist in associating Forest habitat types and site indices with soil type information. These associations can be beneficial in determining management prescriptions for specific sites. Detailed soil surveys, when available, will be made a part of the Compartment Reconnaissance System and continue to be correlated to the Forest Habitat Classification system.

Soil survey information may be obtained from the Natural Resource Conservation Service office.

810.1.4 National Hierarchical Framework of Ecological Units/Ecological Landscape of Wisconsin

Integrated resource management recognizes that an individual Forest site is part of a larger landscape, and management activities can have an impact beyond a specific site. The National Hierarchical Framework of Ecological Units (NHFEU) is a useful tool in understanding natural landscapes.

The Wisconsin Department of Natural Resources (DNR) uses Ecological Landscapes of Wisconsin (WDNR Handbook 1805.1) which is an

ecological land classification system based on the National Hierarchical Framework of Ecological Units (NHFEU). Ecological landscapes distinguish land areas different from one another in ecological characteristics. A combination of physical and biological factors including climate, geology, topography, soils, water, and vegetation are used. They provide a useful tool and insight into ecosystem management. Land areas identified and mapped in this manner are known as ecological units.

Landtype Associations (LTA's) are considered landscape-scale ecological units, and are identified by surficial geology, patterns of vegetation, soil parent materials, and water tables. Most Landtype Associations (LTA's) are between ten thousand (10,000) and three hundred thousand (300,000) acres in size.

Goals can be developed for a Landtype Association (LTA) based in part on its capability, productivity, unique character, and the scarcity or abundance of similar Landtype Associations (LTA's) in the State, region or beyond. Objectives of vegetation management, wildlife habitat, ecological restoration, and recreation use can be tailored to the characteristics and potentials of the eco-system.

810.1.5 Integrated Pest Management

Integrated Pest Management for the purpose of this Plan, is defined as follows:

"the maintenance of destructive agents, including insects, at tolerable levels, by the planned use of a variety of preventive, suppressive, or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable."

The Forestry Committee has the authority to approve and direct the use of pesticides and other reasonable alternatives in an integrated pest management program on the County Forest. Refer to Chapter 600 (610.3) for more detailed discussion and integrated pest management strategies.

810.1.6 Best Management Practices for Water Quality

Often the most practical and cost-effective method to assure that Forestry operations do not adversely affect water quality on the County Forest is to utilize "Best Management Practices" (BMP's) as described in *Wisconsin Forestry Best Management Practices for Water Quality*, Publication Number FR093.

Consistent with the aforementioned manual, Sawyer County will use Best Management Practices (BMP's) on the County Forest with the understanding that the application of Best Management Practices (BMP's) may be modified for specific site conditions with guidance from a Forester or other natural resource professional. Modifications will provide equal or greater water quality protection, or have no impact on water quality. Areas with highly erodable soil types, close proximity to streams or lakes, or steep slopes may require mitigating measures in excess of those outlined in the manual. All Sawyer County personnel practicing forestry will receive BMP training. Additionally, Sawyer County will encourage BMP training for all logging contractors that operate on County timber sales.

810.1.7 Forest Fire Management

Refer to Chapter 600.

810.1.7.1 Uncontrolled Fire

Refer to Chapter 600.

810.1.7.2 Prescribed Fire

Prescribed burning on the County Forest may play an important role in Forest management. Many of the plant communities present today are the result of wild fires.

As the needs are presented to regenerate or maintain timber types or other plant communities, the Forestry Committee will examine the costs and benefits of each opportunity. Increased regulations, the County's cost of completing the burn, and the risk of breakouts and uncontrolled fires will have to be considered with any benefits of vegetation management through prescribed burning.

All prescribed burning will be done in accordance with Wisconsin State Statutes 26.12, 26.14, and the Department of Natural Resources (DNR) Prescribed Burn Handbook 4360.5 and in cooperation with the Department of Natural Resources (DNR) per section 605.5 of this Plan.

810.1.8 Outside Expertise, Studies and Survey

Additional data necessary to make management decisions on the County Forest will be sought from agencies or individuals, who in the Forestry Committee's opinion, are best equipped to provide that service. This data will be used as appropriate for management planning.

810.1.8.1 Water Resources

The Department of Natural Resources (DNR) Fisheries Biologist and the Water Management Specialist will provide surveys, studies, and technical advice as necessary to prepare and carry out recreational planning affecting waters on the County Forest.

810.1.8.2 Wildlife Resources

The Department of Natural Resources (DNR) Wildlife Biologist will provide surveys, studies, and technical services as necessary to prepare and carry-out environmental and recreational planning affecting wildlife on the County Forest.

810.1.8.3 Soil Resources

Soil maps and surveys prepared by the Natural Resource Conservation Service (NRCS) will be used in various phases of planning.

Continental glaciation is responsible for the present topography of Sawyer County. Where the ice stopped, it deposited terminal moraines - huge accumulations of rock, gravel, sand and clay pushed along by or carried on the front of the ice sheet. One of these terminal moraines was deposited between two lobes of the Lake Wisconsin Ice Sheet along the western border of Sawyer County in the present towns of Edgewater, Sand Lake, Bass Lake, Hayward, Lenroot, Round Lake and Spider Lake. The resulting topography can only be described as rough. Lakes and swamps occupy many of the deeper kettle holes and it is noticeable that most of the lakes in Sawyer County are in this morainic area.

Ground moraine forms the greater part of the topography east and south of the moraine. This was deposited in a broad sheet by the ice, which melted away beneath it. The present surface is usually rolling with low ridges and shallow depressions, occupied by swamps rather than lakes.

The soils of Sawyer County have been derived largely from the weathering of the glacial drift deposits and show a great variation

within relatively short distances. Since the glacial period, the soils have been modified by water action, wind, and the accumulation and incorporation of organic material. Soil types on the County Forest can be classified into twenty-four (24) general groups. Level to gently rolling silty soils underlain with sand and gravel occur around Exeland, Stone Lake and east of Hayward. Level to nearly level sandy soils occur around Hayward, northeast of Stone Lake and in the northeast corner of the County. Gently rolling to rolling soils formed in silt underlain with acid glacial till are in the southeast part of the County. A small area of silty and sandy soils occurs through the central part of the County from north to south. Very steep sandy soils with complex topography lie east and west of Hayward. See Chapter 900 for list of soil types.

810.1.8.4 Mineral Resources

The Department of Natural Resources (DNR) may provide information valuable for management of gravel and other mineral resources. (See Chapter 515.1 and 515.2).

810.1.8.5 Wetland Resources

Maps prepared by the Department of Natural Resources (DNR) Bureau of Fisheries Management and Habitat Protection, may be utilized for identifying wetlands. Although not comprehensive, particularly in Forested areas, these maps are a good initial tool for identifying wetlands on County Forest lands. Assistance and technical advice will be requested from the Department of Natural Resources (DNR) Water Management Specialist when wetlands may be affected by management practices. The Army Corps of Engineers will also be consulted as appropriate. In addition, Wisconsin's Forestry Best Management Practices for protecting

water quality will be used. (See Chapter 820.2.2 for further details).

810.1.8.6 Navigable Streams

The Department of Natural Resources (DNR's) Water Regulation Specialist will be consulted when navigable stream crossings or navigable stream management projects are being planned. (See Chapter 840.6.5). Best Management Practices for protecting water quality will be used.

810.1.8.7 Floodplains

Maps prepared by the Federal Emergency Management Agency (FEMA) will be used to identify floodplains. The Sawyer County Zoning staff may be consulted regarding management activities in the floodplain.

810.1.8.8 Cultural Resources

Management planning will take into consideration historical and archaeological sites. More information may be obtained from the State Historical Society or the Department of Natural Resources (DNR) archeologist. (See Chapter 530.3 for further details).

810.1.8.9 Entomology/Pathology

Wisconsin Department of Natural Resources Forestry pest staff will provide information and consultation as requested by the County. (See Chapter 610 for more information on Forest pest control).

810.1.8.10 Endangered Resources

Department of Natural Resources (DNR) endangered resources staff will provide Natural Heritage Inventory (NHI) information and are available for consultation on endangered resources issues.

810.1.9 Local Silvicultural Field Trials

Silvicultural field trials may be initiated during this planning period relating to red oak and conifer regeneration. A compilation of silvicultural trials on State and County lands is available at: <http://dnr.wi.gov/org/land/forestry/sciences/silviculture/index.html>.

810.1.10 Local Citizen Involvement

The Sawyer County Forestry Committee is an open forum to listen, evaluate and incorporate, where appropriate, the public's input into management of the County Forest.

The public's needs and interpretation of management of the Forest should be improved by the availability of "Integrated Resource Management Unit" information (See Chapter 860 for more information). It is hoped that an inventory of each unit's attributes, threats, trends, regulations and opportunities will encourage communication on specific issues and focus on possible solutions using a total integrated resource and eco-system viewpoint.

820 BIOLOGICAL COMMUNITY TYPES

A community is an assemblage of different plant and animal species, living together in a particular area, at a particular time in specific habitats. Communities are complex and dynamic systems named for their dominant plant species. Species/community information has been condensed to familiarize the reader with the make-up of the Forest.

The following biological communities are found on the Sawyer County Forest:

- Northern Forest: contains mixed deciduous and coniferous forests found in a distinct climatic zone that occurs north of the tension zone.

- Wetlands: characterized by soils or substrate that is periodically saturated or covered by water.
- Aquatic Communities: includes springs, ponds, lakes, streams and rivers.

820.1 FORESTED COMMUNITIES

Commercial versus Non-commercial Forest Cover Types: Forest Cover Types that are capable of producing volume growth of 20 cubic feet/acre/year are classified as Commercial Forest Land. Sites that are stocked with trees but have excessively slow tree growth due to high water or other soil problems are classified as Non-commercial Forest Land.

Commercial Forest Cover Types: Eight (8) Forest cover types totaling approximately 94,000 acres comprise the Commercial Forests found on the Sawyer County Forest. The Aspen, thirty-seven percent (37 %) and Northern Hardwood, twenty-six percent (26%) commercial timber types cover the largest acreage of the Sawyer County Forest totaling sixty-three percent (63%) of the Forest acreage.

The Forested cover types are made up of a variety of size classes (regeneration, sapling-pole, and saw timber) and structure (canopy, layers, ground vegetation, dead and downed materials, and inclusions). Forested communities within the Sawyer County Forest cover approximately eighty-two percent (82%) of the Forest.

Forest cover types associated with the County Forest are:

Aspen - 37%. Consisting of primarily Aspen species often found in combination with Paper Birch and Red Maple

Northern Hardwood - 22%. Consisting of a mixture of upland hardwood species including Sugar Maple, Yellow Birch, Basswood, Ash and Red Maple.

Hemlock Hardwoods - 0.5%. More than 50% Hemlock associated with northern hardwood species.

Oak - 7%. Dominated by Red Oak, White Oak, Black Oak and associated with other hardwoods.

Swamp Hardwoods - 4%. More than 50% swamp hardwood species including Black Ash, Red Maple, and Elm.

Red Maple - 0.5%. More than 50% Red Maple. Often associated with Aspen and White Birch.

White Pine - 4%. More than 50% White Pine.

Red Pine - 2%. More than 50% Red Pine.

Jack Pine - 0.1%. More than 50% Jack Pine.

Fir-Spruce - 1%. Consisting of swamp border or upland types with mixed species, predominantly Balsam Fir and Spruce associated with White Pine, Cedar, Red Maple, Aspen and Birch.

Swamp Conifer - 1%. Lowland type typified by Balsam Fir, Cedar, and Spruce in combination with Red Maple and other lowland hardwoods.

Black Spruce - 3%. More than 50% swamp conifer species with Black Spruce predominating.

Tamarack - 1%. More than 50% swamp conifer species with Tamarack predominating.

White Cedar - 0.2%. More than 50% swamp conifer species with White Cedar predominating.

Scrub Oak - 0%. Consisting of a majority of poorer quality oak (often Northern Pin Oak) capable of only fuelwood or cellulose fiber production.

Bottomland Hardwoods - 0%. Typically floodplain species including Silver Maple, River Birch, Elm, Cottonwood, and Green Ash.

White Birch - 0.3%. Consisting of a majority of White Birch, often found in combination with Aspen and Red Maple.

820.2 NON-FORESTED COMMUNITIES

Non-Forested communities within the Sawyer County Forest cover approximately sixteen percent (16%) of the Forest. In broad categories, they are: upland (3.3%), wetland (12%), and water (0.7%).

Non-Forested habitats are important components of management within the County Forest. Upland and wetland non-forest types provide important habitat for distinct groups of species.

The following provides a general description of the Non-Forested communities:

820.2.1 Upland Non-Forest (3.3%)

Upland Non-Forest areas of the County Forest include:

Grass Openings - consists of upland grasses, such as brome, quack, bluegrass, timothy, big and little bluestem, and Indian grass.

Herbaceous Vegetation - ground cover predominated by herbaceous species with bracken fern, sweet clover, giant ragweed, stinging nettle, upland aster, goldenrod, and prairie dock being common.

Shrub Openings - primarily upland sites less than 10% stocked with tree species but having 50% or more of the area stocked with taller growing, persistent shrubs. This includes, but is not limited to, shrubs such as hazel, gray dogwood, juneberry, sumac, ninebark and prickly ash.

Rock Outcrops and Sand Banks - rock outcrops include rocky talus, and bedrock material.

820.2.2 Wetlands (12%)

Wisconsin State Statutes define a wetland as "as area where water is at, near, or above the land surface long enough to be capable of supporting

aquatic or hydrophytic vegetation, and which has soils indicative of wet conditions." Wetland communities are recognized to be a complex association of plants and animals, soils and water levels having special natural values. They are fragile systems that undergo rapid degradation when affected by incompatible uses and unskilled management.

Wetlands provide many functional values including shoreline and flood protection, water quality protection, groundwater recharge, and animal and plant habitat. Therefore, it is the policy of Sawyer County to preserve, protect and manage the wetlands under its jurisdiction in a manner that recognizes the natural values of wetlands and their importance in the environment. To this end the County will:

- Recognize wetland values in management plans, taking reasonable steps to minimize harmful effects.
- Cooperate with the Department of Natural Resources (DNR) in wetland inventories and in preparation of essential wetland information.
- Maintain control of vital wetlands under its jurisdiction when to relinquish such control would risk substantial site alteration and subsequent degradation of wetland values vital to the area and the State.
- Minimize adverse changes in the quality or quantity of the flow of waters that nourish wetlands.
- Cooperate with local, State and national agencies and citizens to increase understanding of the importance of wetlands and the need for land and water stewardship in guiding development decisions.
- Cooperate with the Department of Natural Resources (DNR) in wetland management activities that would enhance the quality and diversity of wetlands in the County and the region.

Wetlands are the transitional habitats between upland and aquatic systems where the water table is usually at or near the surface, or where the land is covered by shallow water. Wetlands are made up of fifteen (15) descriptive types (adapted from PUBL-WZ-029-94). They include:

Shallow, open water - wetlands characterized by submergent, floating and floating-leaved aquatic vegetation such as pondweed, water lilies, water milfoil, and duckweed. Water depths are generally less than 6.6 feet.

Deep marshes - wetlands characterized by emergent vegetations such as cattails and pickerel weed and floating leaved plants such as white and yellow water lily and watershield. Water depths of six (6) feet are typically found on deep marshes.

Shallow marshes - wetlands characterized by persistent emergent vegetation such as cattails and pickerel weed, etc., and water depths to 1.5 feet.

Sedge meadow - wetlands characterized by sedges and cattails. Surface water depths to six (6) inches in winter and early spring, and exposed saturated soil surface in summer.

Fresh (wet) meadow - wetlands dominated by grasses, such as red-top grass and the invasive, non-native, reed canary grass, and by forbs such as giant goldenrod growing on saturated soils.

Calcareous fen - rarest wetland plant community in Wisconsin. They are found in wet, seepage sites that have an internal flow of groundwater that is rich in chemical compounds and creates harsh, alkaline soil. Species like the shrubby cinquefoil, Ohio golden rod, and sterile sedge are characteristic.

Open bog - wetlands that are composed of living sphagnum moss growing over a layer of acid peat. Herbs and low shrubs colonize the mat and immature or stunted trees of black spruce and/or tamarack may be

scattered through the area.

Coniferous bog - wetlands similar to open bogs, except that mature black spruce and/or tamarack trees are the dominant species growing on the sphagnum moss mat. Black spruce and heath family shrubs are characteristics only of acid peats, whereas tamarack can grow in calcareous peats, such as those of northern white cedar swamps.

Shrub-Carrs - wetlands composed of tall deciduous shrubs growing on saturated to seasonally flooded soils. They are usually dominated by willows or red-osier dogwood. Non-native shrub species invade shrub-carrs, especially where drainage and pasturing have disturbed the area. In particular, honeysuckle and buckthorn can invade quickly.

Alder thicket - wetlands similar to shrub-carrs, but dominated by speckled alder. It can also include other shrub species like high bush cranberry and sweet gale.

Lowland hardwood swamp - wetlands dominated by deciduous hardwood trees. Soils are saturated during much of the growing season, and may be inundated by as much as a foot of standing water. Species include black ash, red maple, yellow birch, and northern white cedar.

Coniferous swamp - wetlands dominated by lowland conifers, primarily northern white cedar and tamarack. Soils are saturated during much of the growing season and may be inundated by as much as a foot of standing water. Soils are usually organic. A sphagnum moss mat is not present.

Floodplain Forest - wetlands dominated by mature, deciduous hardwood trees growing on alluvial soils associated with riverine systems. These wetlands often occur in the backwaters and depressions of rivers, which retain water for a long period into the growing season. Typically they include northern and southern wet-mesic hardwood Forest associations. Floodplain Forests support diverse plant and animal species because they serve as migration corridors.

Seasonally flooded basin - wetlands in poorly drained, shallow depressions that may have standing water for several weeks of each year, but are usually dry for much of the growing season. Typical species include smartweeds, beggarsticks, and wild millet. These basins often support an abundance of plant seeds and invertebrates, which make them ideal feeding and resting areas for migrating waterfowl and shorebirds.

820.2.3 Open Water Habitats (0.7%)

Open water habitats are permanently flooded lands below the deep-water boundary of wetlands. Water is generally too deep to support emergent vegetation. Presence of these aquatic habitats within a Forest landscape greatly increases the number of wildlife species that can potentially occur. They include rivers, lakes, and streams. They are broken down into:

Lakes - lakes, ponds and flowages in excess of forty (40) acres in an area; or river in excess of one eighth (1/8) mile in width.

Streams - intermittent or permanent watercourses with slow water velocities and are usually defined as being less than one-eighth (1/8) mile in width.

Rivers - wetlands and deep-water habitats contained in a channel through which the water flows and associated with Forested riparian zones.

830 **PLANT COMMUNITIES MANAGEMENT**

Sawyer County recognizes the importance of maintaining the diversity of the County Forest under an eco-system approach. The process involved in making management decisions to encourage, or not to encourage, specific species or communities is complex. It includes an understanding of:

- Objectives of the County Forest
- Integration of the National Hierarchical Framework of Ecological Units (NHFEU - landforms, soils, climate, vegetation classification at multiple scales).

- Application of habitat type classification to identify ecological potentials and silvicultural alternatives.
- Past, present, and future desired condition.
- Surrounding ownership patterns and their generalized objectives.
- Socio-economic needs.

830.1 SILVICULTURE

Silviculture is the practice of controlling Forest composition, structure, and growth to maintain and enhance the Forest's utility for any purpose. Typically, silvicultural guidelines are written to encourage a stand to contain the greatest quality and/or quantity of timber under either an even-, or uneven-aged system. Plant communities are normally managed within the guidelines found in the Wisconsin Department of Natural Resources, Silviculture and Forest Aesthetic Handbook 2431.5.

A summary of management on the Sawyer County Forest is described as follows:

830.1.1 Aspen Management

Aspen is found commonly throughout the Sawyer County Forest. It is a relatively short lived species that is shade intolerant. Aspen seedlings need full sunlight for optimum survival and growth.

The aspen type is recognized as providing important habitat values to a wide variety of wildlife species, as well as being an important species for economics and fiber production. A significant portion of the County Forest revenue is generated through the management and harvest of aspen.

The extent of this vital resource has been steadily declining statewide since the 1960's, but is stable within the Sawyer County Forest over the last thirty (30) years. The chief reasons for the statewide decline are: 1) lack of harvest as stands reach maturity (natural succession); and, 2) selective harvest. In both instances, the end result is conversion to more shade tolerant timber types.

Sawyer County is committed to maintaining its aspen acreage for wildlife and economic benefits. It will accomplish this by regenerating mature aspen stands through the use of clearcuts, although conversion of aspen timber types to more long-lived species will be a goal in Class A Aesthetic Zones and in riparian zones. Aesthetic concerns in other areas often can be mitigated by retaining pine and/or hardwood tree species on the sites, limiting the size of harvests, and creating irregularly shaped sale boundaries.

830.2 LOCALLY UNCOMMON TREES

The presence or lack of a particular plant species is dependent on the land's capabilities, climate, and natural (e.g., fire, browsing) and/or man-caused (e.g., logging, farming) disturbances. The present scarcity of the listed species makes them a source of concern. The following are considered uncommon on the Forest and perhaps to some extent across the regional landscape:

830.2.1 Jack Pine

Jack Pine is a shade intolerant species that occurs throughout the sand regions of the Forest. This species is shade intolerant and is naturally regenerated by wildfire. Full sunlight, prepared seedbed, and heat are the key conditions provided by fire. With the control of wildfire, other techniques have become necessary in order to perpetuate this type.

Soil scarification followed by harvest is a locally proven method for regenerating Jack Pine in the adjoining counties of Washburn and Bayfield. This method is most advantageous from an economic and ecological standpoint, lending itself to a more natural condition. Planting has been equally successful; however, it requires more expenditure and administration.

From a landscape perspective, the Jack Pine type is declining as it is converted either successional or through planting to another species. Sawyer County Forest will attempt to minimize conversion of Jack Pine to other species in order to stem long-range decline of this Forest type.

830.2.2 American Elm

American Elm is scarce primarily due to mortality caused by the introduction of Dutch elm disease. Existing Elm will normally be left uncut in hopes that they may continue in the landscape as potential resistant seed source individuals. Where possible during silvicultural operations, efforts will be made to encourage regeneration of American Elm.

830.2.3 Butternut

Butternut occurs on the Sawyer County Forest primarily in the southeast block. Due to Butternut decline, fewer individuals are present than in previous years. Existing healthy Butternut will normally be left in hopes that they may continue in the landscape as potential resistant seed source individuals. Where possible during silvicultural operations, efforts may be made to encourage regeneration of Butternut. This may include cutting to encourage stump sprouts in certain situations.

830.3 TREES LOCALLY DIFFICULT TO REGENERATE

There are certain tree species whose home ranges are within the County Forest that are difficult to regenerate. In many cases, this difficulty is related to the exclusion of fire from the environment. In other cases, this may be due to browsing by deer. The following species, normally found within the County, are found to be difficult to regenerate:

830.3.1 Hemlock

Sawyer County is on the far western range of the Hemlock timber type. Foresters and researchers continue to research methods to successfully regenerate this timber species. Currently, Hemlock timber types within the Sawyer County Forest are being reserved from harvest until reliable methods for regeneration are developed.

830.3.2 White Birch

White Birch (also referred to as paper birch) is a shade intolerant species and is generally found in stands of timber of similar age. A mineral seedbed appears to be necessary to regenerate White Birch and it is assumed that most White Birch present on the Forest is of fire origin. Drought conditions in 1989 and 1990, coupled with unseasonably warm temperatures and secondary pathogens, resulted in mortality of nearly 50% of the White Birch on the Forest.

Existing stands of White Birch may be considered for scarification coupled with shelterwood harvests. Initial trials using this method have proven successful in Counties adjacent to Sawyer County.

830.3.3 Northern Red Oak

The Red Oak type is common across the northern and southwestern Block of the County Forest. Red Oak tends to favor habitat types that are

also suitable for white pine and northern hardwood species. On many sites, normal thinning practices tend to favor the growth and regeneration of other hardwoods over Oak. Over time, this shade tolerant seral stage will replace the Red Oak. The difficulty of regenerating Red Oak on these sites appears to be related to lack of soil disturbances including the removal of fire from the landscape.

Red Oak has very high wildlife value due to its mast production and tendency to produce cavities that are suitable for wildlife dens. It also has very high timber value in sawlog-sized timber. Because of these factors, it is important to retain Red Oak on the Sawyer County Forest.

Silvicultural trials using prescribed burns coupled with shelterwood harvests appear to be successful in northern Wisconsin. However, conducting these burns on a large scale has proven difficult. Scarification and other methods will continue to be investigated.

830.4 EXOTIC PLANT SPECIES OF CONCERN

Exotic or non-indigenous invasive plant species can cause significant ecological and economic damage to the County Forest. Some invasive species, such as common and glossy buckthorn, eliminate not only wildflowers but also limit the regeneration of tree species. Keeping them from dominating the understory is critical to the long-term health and economic viability of the Forest. Currently, the Sawyer County Forest has few significant infestations of invasive plants, but Japanese honeysuckle is a growing problem on private lands in the Couderay and Ojibwa areas which has potential to become a serious problem on the County Forest within the planning period. With training, vigilance, and control efforts new infestations can be managed or eliminated. There are many highly invasive plants that are threatening to invade much of the northern Forests in Wisconsin.

830.5 LEGALLY PROTECTED PLANT SPECIES

There are some plants in Wisconsin that are afforded protection under the Federal Endangered Species Law, the State Endangered and Threatened Species Law (s. 29.604, Wis. Stats. and NR 27 Wis. Adm. Code), or both. Under Wisconsin State Law, no one may possess or sell any wild plant that is listed without a valid endangered or threatened (ET) species permit. On public lands or lands one does not own, lease or have permission of the landowner, one may not cut, root up, sever, injure, destroy, remove, transport, or carry away a listed plant without an ET special permit. There is an exemption on public lands for Forestry, Agriculture and utility activity under the State law.

In the Natural Heritage Inventory (NHI) program the Department of Natural Resources tracks information on these species in the State. See Chapter 900 for a list of legally protected plants known to occur in Sawyer County (on or near the County Forest).

830.6 OTHER PLANT SPECIES AND NATURAL COMMUNITIES OF CONCERN - NHI

Rare and Endangered Resources

The Natural Heritage Inventory (NHI) documents occurrences of rare, threatened, and endangered species, as well as natural communities and species of special concern. Foresters and Land Managers access the NHI database before implementing Forestry or recreational projects in order to help determine if NHI species might be affected adversely by a propose activity. (See Chapter 900 for a listing of threatened or endangered species in the Forest). The NHI program at the Department of Natural Resources (DNR) also tracks information on rare species and natural communities, in addition to legally protected species.

830.6.1 Special Concern Plants

Special Concern Species are those species in which some problem of abundance or distribution is suspected, but not yet proven. The main purpose of this category is to focus attention on certain species before they become threatened or endangered. See Chapter 900 for a list of Special Concern plant species known to occur in Sawyer County (on or near the County Forest).

830.6.2 Natural Communities

Similarly, specific records of natural communities are also tracked. See Chapter 900 for a list of natural communities have been recorded in Sawyer County (on or near the County Forest).

830.6.3 Special Natural Communities -- "Natural Areas"

The Department of Natural Resources (DNR) has identified and registered several areas on or near the Sawyer County that are unique, rare or remnant natural communities that warrant protection. Bureau of Endangered Resources biologists offer technical assistance for any inventory or management needs associated with these unique areas. Identified areas include official and prospective "Natural Areas" and areas of "high conservation value forests or wetland ecological reference areas":

830.6.3.1 Totogatic River Hemlocks

Found at this site is relict old-growth stands of hemlock and white cedar. The 2004 Statewide Forest Plan calls for protection of all relict old growth stands. Sawyer County has protected this site for decades, as has the Board of Commissioners of Public Lands that own the adjacent forty (40) acres in Bayfield County. These types of natural communities have received little recognition for their ecological reference attributes in the past. The Wisconsin State

Natural Areas Program has gaps in this ecological landscape for the northern mesic forest and northern wet-mesic forest in this Landtype Association. A cooperative recognition could benefit both programs.

830.6.3.2 Osgood Springs

The feature of primary interest is a series of interconnected spring ponds that form the headwaters of McDermott Brook. Extensive wetlands of alder, willow, and conifer swamp along with open sedge meadow occupy the remainder of the site. The high quality nature of the springs and surrounding wetland communities combined with excellent forb diversity makes this spring site one of the best known in the state. These types of natural communities have received little recognition for their ecological reference attributes in the past. The Wisconsin State Natural Areas Program has gaps in this ecological landscape for springs. A cooperative recognition could benefit both programs.

830.6.3.3 Camp Smith Lake - Deadman Lakes Natural Pine Area

The northern part of the County Forest contains many patches of natural origin red and white pine. Pines of natural origin are uncommon in the State and are becoming rarer every year. This type of pine forest is considered a high conservation value forest. Even though management is needed to maintain the cover types, management plan should consider development of old-growth characteristics and natural regeneration methods. The site could develop into a landscape pinery management area. Bureau of Endangered Resources (BER) biologists would be available to provide assistance in planning should the County choose to

develop such an area.

830.6.3.4 Log Creek Drumlin

This site contains a large open black spruce muskeg. Nearly the full compliment of acid bog plants is found at this site. Patches of lower wet areas harbor poor fen species. Current management should maintain this site.

830.6.4 Land Legacy Areas

These areas are large and cross numerous ownership boundaries, both public and private. Cooperative and collaborative planning to formulate goals for these land legacy places has not yet taken place. More information on the ecological and recreational values is found in the Land Legacy Report found in Chapter 900. Land Legacy Areas include:

- Namekagon River
- North Fork of the Chief River
- Chippewa Flowage
- Chequamegon-Nicolet National Forest
- Flambeau River State Forest
- Pipestone Hills
- Upper Chippewa River
- Thornapple-Brunet River Woods
- Big Island - Nelson Lake
- Couderay River
- Mosquito Brook
- Weirgor Springs

840 WILDLIFE SPECIES MANAGEMENT

840.1 WILDLIFE RESOURCES

For the purpose of this Plan, wildlife will include all native birds, mammals, fish, amphibians, reptiles, and insects with a strong focus on the natural communities in which they live. Wildlife biologists will emphasize habitat management that interrelates and benefits wildlife, and complements sound Forestry practices. Concerns about the biological diversity of the County Forest and how it fits into the regional, continental and global perspective, many cause wildlife management to place increased emphasis on segments of the Forestry community. Practices such as Old Growth, Snag and Den Tree Management, Access Management, Forest Openings Management, Oak Management and Aspen Maintenance, can be priorities in the dynamics of Forest management. A primary goal of Wildlife Management on the Sawyer County Forest is to provide a diversity of healthy eco-systems necessary to sustain native populations for their biological, recreational, cultural and economic values.

Department of Natural Resources (DNR) Wildlife Biologists will implement population and habitat surveys, provide technical advice, and direct assistance needed for Wildlife Management Planning and Implementation on County Forest lands. Wildlife projects are identified and implemented in collaboration with the County Forest Administrator, Department of Natural Resources (DNR) Liaison Forester, and the Forestry Committee.

The Sawyer County Forest is habitat for wildlife common to Wisconsin. While no formal comprehensive survey has been conducted to identify or inventory the fauna occurring on the Forest, one may be needed in the future for Forest Certification requirements.

Numerous species of songbirds, waterfowl, raptors, shorebirds, reptiles,

amphibians, fish and mammals frequent the Forest. Each species, or interacting group of species, do best under different conditions, ranging from recently disturbed ground to old growth. A diversity of plant communities is key to providing a niche for a variety of wildlife species.

Probably the two (2) most popular wildlife species in the County are the white-tail deer and ruffed grouse. The Aspen Forest-type is recognized as key habitat for these species and is important in maintaining biological diversity across North America. Longer rotation Forest communities, such as uneven-aged northern hardwood, similarly provide important habitat for other, less well-known species, such as pileated woodpeckers or northern goshawk.

Permanently sodded, grassy openings within the Forest (many originating from old log landings, camps, old burns, or frost pockets), are vital components of Forest wildlife habitat. An effort is being made to maintain and improve the quality and, in some cases, the quantity of openings.

840.1.1 Technical Planning

As required by s. 23.09(17M), Wis. Stats., wildlife management technical planning shall be a cooperative effort of the Forest Administrator, Department of Natural Resources (DNR) Liaison Forester and Wildlife Biologist in formulating management plans and utilizing wildlife management techniques for the overall protection and enhancement of the Forest community, of which wildlife is a key component. Wildlife project planning shall follow priorities and procedures detailed in the Wildlife Habitat Improvement Program section of the Wisconsin Department of Natural Resources (DNR) Wildlife Operations Handbook (2310.5, pages 20-10 through 20-13 - see reference copy in Chapter 900).

840.1.2 Guidelines

Additional references and guidelines for wildlife planning efforts on the County Forest include: WDNR Manual Codes on Endangered and Threatened Species Permits Issue (1724.5), Feasibility Studies and WEPA Analyses for Establishing or Modifying Property Project Boundaries (2105.1), Guidelines for Defining Forest-Wildlife Habitat Management (2112), Forest Opening Maintenance and Construction (2112.1), and the Public Forest Lands Handbook (2460.5). See reference copies in Chapter 900.

840.1.3 Inventory

Habitat needs will be determined by analysis of Forest reconnaissance information. Population estimates will be conducted periodically by Department of Natural Resources (DNR) wildlife, endangered resources personnel, and other trained cooperators.

840.1.4 Rare and Endangered Resources

The National Heritage Inventory (NHI) documents occurrences of rare, threatened, and endangered species, as well as natural communities and species of special concern. Foresters and Land Managers access the NHI database before implementing Forestry or recreational projects in order to help determine if NHI species might be affected adversely by a proposed activity. (See Chapter 900 for listing of threatened, endangered or species of special concern on or near the Sawyer County Forest).

840.2 RESOURCE MANAGEMENT AND AREAS OF FOCUS

In applying this Plan to the County Forest, the following areas of focus were identified in achieving Plan objectives:

840.2.1 General Management Policies

Forest management practices may require modification to benefit wildlife and biodiversity in certain situations. The following will be considered in Forest management planning:

- Even-aged regeneration harvests (clearcuts) should vary in size and shape.
- A diversity of stand age, size and species.
- Mast-bearing trees and shrubs, den trees, and an adequate number and variety of snags.
- Cull trees (future snag or den trees) not interfering with specific high value trees.
- Timber types, habitat conditions and impacts on affected wildlife.
- Access management.
- Best Management Practices (BMP's) for water quality.

840.3 HABITATS OF IMPORTANCE

Important habitat types are those cover types known to be of importance to certain native wildlife and whose absence would make that wildlife significantly less abundant. These shortages may be on a local or broader scale. (See Chapter 530). The following habitat types can be considered important:

840.3.1 Aspen

The Aspen type is recognized as providing habitat values to a wide variety of wildlife species. This type will continue to be regenerated, with consideration given to reserving scattered den and mast-producing trees in the process.

840.3.2 Jack Pine

Jack Pine and its associated plant understory provide a vital mix of

breeding and winter habitat for many wildlife species. The minor acreage of Jack Pine timber type that occurs on the Sawyer County Forest will become increasingly important as conversion to other tree species occurs on private lands. Jack Pine habitat maintenance will be a high priority.

840.3.3 Forest Openings

Permanent grass openings are essential to well-balanced wildlife habitat. Openings will be maintained where needed. Most timber sale access roads and landings are seeded for the benefit of wild game.

840.3.4 Lowland Conifer

Cedar, hemlock, and balsam fir types are important for winter cover for many wildlife species. These Forest-types will be maintained where practical.

840.3.5 Oak

The Oak type is important to wildlife because of its cavity-forming potential and mast production. The vast majority of the Oak acreage that occurs on the Sawyer County Forest is nearing maturity during the planning period. Future management will focus on regenerating this type.

840.3.6 Forest Game Species

The management of Forest game (white-tailed deer, ruffed grouse, black bear, turkey, snowshoe hare, and numerous furbearers) is centered on maintaining early successional species such as aspen, jack pine, white birch, and scrub oak; with aspen and oak being the primary species of importance.

Manual Code 2112 is a Wisconsin Department of Natural Resources (WDNR) document that establishes guidelines for measuring Forest game

habitat. It has been used like a barometer to measure changes in Forest wildlife habitat. While the scope of Manual Code 2112 can be narrow (deer habitat units compared with landscapes and ecoregions) by today's management standards, the impacts are broad. Foresters, in concert with wildlife biologists, will continue to monitor Forest game species and adjust land management prescriptions where appropriate. (See a copy of MC 2112 in Chapter 900).

840.3.7 Forest Non-Game Species

Efforts will be made with the Wisconsin Department of Natural Resources (WDNR) to inventory existing populations, identify needs, and maintain valuable habitat types. The County has a history of commonly modifying silvicultural prescriptions for timber harvest to benefit non-game species. Modifications include leaving reserve trees in clearcut areas, and cavity trees, potential cavity trees, wolf trees in other areas, and leaving hemlock and some riparian areas unharvested.

840.3.7.1 Neotropical Migrant Birds

Neotropical migrant birds (NTMB) are songbirds that breed in North America and winter in Central and South America. There are over one hundred twenty (120) species of NTMB's that spend a portion of each year in Wisconsin. Different NTMB's utilize a wide variety of habitats including forests, shrubs, and grasslands. Warblers, tanagers, vireos, thrushes, swallows, blue-winged teal and hummingbirds are just some examples of NTMB's. In addition, these species play an important role in Forest health by consuming large amounts of insects, including Forest pest species such as gypsy moths and Forest tent caterpillars.

In recent years, several neotropical species have experienced

significant declines in population. These declines likely reflect a reduction in suitability, or a loss of habitat where these species breed, overwinter and/or migrate. Grassland birds seem to be experiencing the most precipitous declines range wide, due to a loss of habitat both in North America and on the wintering grounds in South America. However, species that nest in forests or shrublands, such as the cerulean warbler, golden-winged warbler, and veery are also declining nationwide.

In some cases, these declines may be tied to Forest fragmentation. There are really two forms of Forest fragmentation, each with different impacts on Forest birds. One form of Forest fragmentation occurs when portions of a Forest are converted into Non-Forest cover crops (urbanization and agricultural). This is permanent fragmentation and poses the greatest threat to all Forest wildlife. The second type is the fragmentation of habitat or cover type. This habitat fragmentation occurs naturally due to local geological features or can be a result of human activity (harvest activity). Both kinds of Forest fragmentation have impacts on neotropical birds including changes in competition for resources, predation rates, and perceived quality of habitat. Each species of NTMB respond to Forest disturbance differently. Since there are so many neotropical migrants that utilize a wide variety of habitats and successional stages it's difficult to make generalizations as to the impacts of Forest management on the health of certain bird populations. Species such as chestnut-sided warblers and mourning warblers benefit from early successional species produced by clearcutting. Species that rely on more mature Forests or inferior Forests, such as ovenbirds or black-throated blue warblers, will be negatively impacted by intensive Forest management. To assure a rich

diversity of NTMB's in Wisconsin's Forests, emphasis should be placed on Forest management guidelines that promote habitat for NTMB's with the most specialized habitat needs.

Forests and associated wetlands of the western Great Lakes, including Wisconsin, support some of North America's highest densities and most diverse assemblages of breeding birds (Howe et al. 1996). While some Forest/shrub species mentioned above are decreasing, according to the Federal Breeding Bird Survey (BBS), the majority of Forest/shrub species that breed in Wisconsin are increasing. Wisconsin's private, County, State, and National Forests are still relatively intact and have regained much of their structural and compositional diversity that was once reduced in the big "Cutover" in the early 1900's.

As habitat is lost and fragmented by development on private lands, Wisconsin's County Forests continue to provide increasingly important habitat to numerous NTMB species that occur in a wide variety of Forest types and age classes.

840.4 LEGALLY PROTECTED ANIMAL SPECIES

The Federal Endangered Species Act of 1973 and the Lacey Act together provide for the protection of wild animals threatened with extinction. The State Endangered and Threatened Species Law also requires that the State assume responsibility for conserving wild animals by restricting and regulating the taking, possession, transportation, processing, or sale of endangered or threatened wild animals within its jurisdiction. Further, the Federal Migratory Bird Act and the Eagle Protection Act provide additional protection for certain species of birds. Because animals usually travel freely from one property to another, they belong to everyone. Therefore, if a species is legally protected, it is protected anywhere

it occurs in Sawyer County. See Chapter 900 for a map and list of legally protected animal species known to occur in Sawyer County (on or near the County Forest).

840.5 OTHER ANIMALS OF SPECIAL CONCERN - NHI

Just as with plants, the Department of Natural Resources (DNR) tracks information on rare animal species when some problem of abundance or disturbance is suspected but not yet proven. The main purpose of this category is to focus attention on certain species before they become threatened or endangered. See Chapter 900 for a list of Special Concern animal species known to occur in Sawyer County (on or near the County Forest). In addition to NHI, a statewide list of Species of Greatest Conservation Need can be found at: http://dnr.wi.gov/org/land/er/cwcp/SGCN_ID.pdf.

840.6 FISHERIES AND WATER MANAGEMENT

Public waters shall be managed to provide for optimum natural fish production, an opportunity for quality recreation, and a healthy balanced aquatic eco-system. Emphasis will also be placed on land-use practices that benefit the aquatic community. Management of County Forest lands will attempt to preserve and/or improve fish habitat and water quality.

Sawyer County has fifty-four thousand (54,000) acres involving two hundred fifty (250) named lakes, one (1) flowage and eighteen hundred forty-three (1,843) miles of streams. Of this total, 207.9 miles are classified as trout streams (Class I - 115.2 miles, Class II - 70.8 miles, and Class III - 21.9 miles).

Within the County Forest boundaries, there are a variety of fishery resources. Approximately sixty-four (64) unnamed lakes have all or portions of their shoreline under County ownership. In addition, the County owns frontage on at least nine (9) named trout streams: Mosquito Brook, Sucker Creek, Thirty-Three

Mile Creek, Little Weirgor Creek, Hatchery Creek, North Branch Tupper Creek, Deer Creek (Winter), McDermott Creek, and the Totogatic River, totaling about nineteen (19) miles.

Sawyer County also has six (6) streams totaling approximately twenty (20) miles which are classified as Outstanding and Exceptional Resource Waters including:

- Little Weirgor Creek
- McDermott Creek
- Mosquito Brook
- Grindstone Creek*
- Benson Creek*
- Namakagon*

*Not within Sawyer County Forest, but Sawyer County Forest proximity creates watershed effects.

840.6.1 Technical Planning

Management of all waters within the County Forest is the responsibility of the Department of Natural Resources (DNR). Technical assistance will be provided by the local Fisheries Biologist. Studies and management will be conducted in the manner described in the Department of Natural Resources (DNR) Fish Management Handbook 3605.9.

840.6.2 Water Surveys

Comprehensive lake and stream surveys on the County Forest will be conducted by the Department of Natural Resources (DNR) Fisheries Biologist as required. The publication, "Surface Water Resources of Sawyer County", contains additional information relative to these waters.

840.6.3 Population Surveys

Surveys of fish populations in waters within the County Forest will be conducted by the Department of Natural Resources (DNR) as required and will generally run concurrently with water surveys. Fish management programs will be guided by these surveys.

840.6.4 Lake Management

Management of lakes within the County Forest will be consistent with the capability of the resource and any unique aspects associated with that resource.

840.6.5 Stream Management

Trout streams on the County Forest will be managed to protect and enhance their quality. Streams containing warm water or cool water species will be managed to perpetuate their inherent qualities. Corresponding land and water use practices will be consistent with this policy.

840.6.6 Best Management Practices for Water Quality

Protection of water resources in the County will be consistent with the "Wisconsin Forestry Best Management Practices (BMP's) for Water Quality". Examples of these protective measures are:

- Uncut riparian zones
- Erosion control measures
- Stream bank protection

840.6.7 Shoreland Zoning

See Chapter 900.

840.6.8 Access and Development

Access and development on County Forest waters will be limited to those activities consistent with the above water management policies. See Chapter 740 for further information.

840.6.9 Important Water Resources

Management activities adjacent to these water resources, or in areas with sensitive soils or severe slopes, should consider measures above and beyond the customary BMP practices. An "erosion susceptibility map" identifying these more sensitive areas of the Forest can be found in Chapter 900. County staff may work with the Department of Natural Resources (DNR) Liaison Forester in cooperation with the local Department of Natural Resources (DNR) water resources staff to develop site-specific measures where appropriate. An inventory of water resources can be obtained from the Department of Natural Resources (DNR) Water Resources staff for Sawyer County.

840.6.10 Importance of BMP's to Fisheries

Watershed protection will be emphasized via the BMP's to minimize potential negative effects of Forest harvest activities, and in particular road and trail use, construction, and maintenance. There likely are other existing roads which pose similar threats to surface water and their watersheds. A long-term plan to re-route and mitigation seems to be indicated. It is now clear that ATV use cannot be accommodated on unimproved trails in fragile watersheds. Sawyer County needs to formulate a comprehensive ATV policy to address this issue.

840.7 CAMP SMITH LAKE

Camp Smith Lake is the premiere coldwater fishery resource on the Sawyer County Forest and will continue to receive major management focus. The State

will continue to stock trout to provide one of the better and most popular put-grow-take fisheries in the area. The effectiveness of stocking spring fingerling trout (as opposed to older, larger, and more expensive spring yearlings) is in early stages of evaluation but appears to be working. This technique can be expanded to produce seasonal trout fisheries in winterkill lakes, as demonstrated by the current trout program on the Washburn County Forest.

840.8 CAMP SMITH LAKE ACCESS

The recent history of Camp Smith Lake emphasizes the need for proper siting, maintenance, and use of Forest roads. At Camp Smith Lake an old Forest road on the south side of the lake had a long history of use and maintenance, despite being poorly sited on too steep of a slope, too close to the water, and on erodable soils. Recent ATV use and accommodation of ATV use had accelerated the problem, manifested in significant lake sedimentation. In late 2004, the road was closed off for good, a mitigation plan was started, and an alternate trail route is being researched for development.

840.9 AERATION PROJECT ON CAMP SMITH LAKE

The previous Comprehensive Lake Use Plan projected an aeration project for Camp Smith Lake. This lake is in a deep depression and does not always mix well enough in the fall to prevent overwinter oxygen depletion. So, an aeration system would be an insurance policy against occasional winterkill. The project never proceeded past the planning stages in the last cycle because the cost proved too high for existing funding sources. The project is still viable if fifteen to twenty thousand (\$15,000 - \$20,000) funding can be secured. It would be a solar powered pump and cascade system.

840.10 MANAGEMENT OPPORTUNITIES FOR UNNAMED LAKES

There are about sixty-four (64) unnamed lakes on the Sawyer County Forest, and it is estimated that as many as twenty percent (20%) would have seasonal

trout potential. Surveys and experimental stocking in the next decade should focus on providing an additional five to ten (5-10) coldwater lake fishing opportunities.

840.11 FISH STOCKING

Other fish stocking on the Sawyer County Forest involved stocking of walleye fingerlings in Nelson, Smith, and the Tiger Cat Chain of Lakes and trout stocking in Osgood Lake.

840.12 BEAVER MANAGEMENT

Beaver management will continue to be a major watershed and habitat protection feature on trout streams. This will include beaver removal via the APHIS program and private trappers, and dam removal.

840.12.1 Riparian Management for Trout Streams

Some trout streams within the County Forest contain significant acreages of aspen timber type adjacent to them. For the benefit of the trout resource, it is important to break the long-term cycle of repeated beaver colonization. Converting aspen Forests adjacent to trout streams will discourage beaver colonization by removing the food source and in general improve fisheries habitat along these streams. Compliance with BMP's and the Sawyer County Shoreland Zoning Ordinance when establishing timber sale prescriptions and boundaries should help discourage aspen regeneration and conversion to more long-lived species.

840.13 INSTREAM HABITAT RESTORATION

In the foreseeable future, watershed level habitat protection will be emphasized over site-specific in-stream work.

840.13.1 Hatchery Creek

In-stream habitat restoration has two past success stories on the Sawyer County Forest - at Hatchery Creek in 1987 and on Mosquito Brook in the mid-70's. The Hatchery Creek project completely rebuilt the trout stream after the State fish hatchery was dismantled.

840.13.2 Mosquito Brook Flowage

There is an opportunity for habitat restoration on the Mosquito Brook Flowage. Currently, there is an impoundment from a dam on private land. If the dam were removed, it would expose about a mile of Mosquito Brook headwater habitat, including numerous small springs and spring ponds. Although the dam is on private land, Sawyer County Forest land touches the upper end of the Flowage.

840.14 RESEARCH OR SURVEYS

Research or surveys are a key technique for providing "actionable recon" for evaluating or prescribing other management techniques. Recent surveys have been conducted or are on-going on Nelson Lake, the Tiger Cat Chain, Smith Lake, Mosquito Brook, and the Thornapple River. Future survey work will target Thirty-Three Creek, Sucker Creek, Weirgor Lake, Green Lake, the Tupper Creek watershed and select unnamed lakes with potential for seasonal trout management.

850 LANDSCAPE MANAGEMENT

850.1 BIOLOGICAL DIVERSITY

For the purposes of this Plan, biological diversity will be interpreted to reference the variety and abundance of species, their genetic composition, and the communities, eco-systems, and landscapes, in which they occur. It also refers to ecological structures, functions, and processes that occur in eco-systems to

sustain the system as viable entities. The Forest landscape, a mosaic of plants and animals of various sizes and ages, are in constant flux due to succession from both natural and planned events.

Opportunities to manage Sawyer County Forest lands toward these ends will be continued and improved, provided they are deemed to be in the public's best interest by the Forestry Committee and within the framework of the County Forest Law (s. 28.11, Wis. Stats.).

850.2 HABITAT FRAGMENTATION

The adoption of management plans and strategies developed cooperatively with neighboring Forest owners and managers will help to consider fragmentation on a landscape level. A continued program of encouraging land acquisition within the Forest blocking will decrease negative impact of Forest fragmentation by land uses other than Forestry.

850.3 HIGH CONSERVATION VALUE FORESTS/AREAS (HCVF) AND EXCEPTIONAL RESOURCES

Refer to Chapter 530.

850.4 EXTENDED ROTATION FOREST

Extended rotation represents mature Forests managed for both Forest products and for the development of some of the ecological and social benefits associated with older Forests. These sites are dominated by biologically mature trees that are older than their traditional rotation age and younger than their average life expectancy. In general, management prescriptions on these sites are delayed beyond the normal rotation that is used on the balance of the Forest. These extended rotation stands maybe aspen, northern hardwood, pine, or any other species that creates stand conditions with large diameter trees, native plant conditions, and course woody debris and down timber. Sawyer County intends

to manage oak Forests on an extended rotation basis for wildlife and aesthetic benefits where possible.

850.4.1 Presumed Climax Forest Cover

Sawyer County will allow development of climax Forests primarily in riparian areas. With the development and acceptance of habitat classification as a management tool, land managers are gaining a much better understanding of the natural successional patterns on differing habitat groups and soil types. Sawyer County addresses the issue of old growth by managing for a presumed climax overstory on a percentage of the habitat and soil types that exist on the Forest. It is important to understand that there are often multiple possibilities for a climax overstory on many habitat types. It is also important to understand that the climax overstory on certain sites may not be as socially and economically beneficial as an early or mid-successional species.

850.5 OTHER SPECIAL MANAGEMENT AREAS

Non-commercial Forested wetlands are not harvested on the Sawyer County Forest and provide undisturbed habitats for numerous wildlife and plant species.

860 INTEGRATED RESOURCE MANAGEMENT UNITS

Integrated resource management units will not be employed in this Plan, but may be developed in the future at the direction of the Sawyer County Forestry Committee.

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 900

APPENDIX

900	RESOURCE MAPS AND TABLES.....	3
900.1	GENERAL SOIL MAP OF SAWYER COUNTY*	5
900.2	MAP OF COUNTY FOREST LOCATION*	7
900.3	OFFICIAL COUNTY FOREST ACQUISITION BOUNDARY MAPS*... ..	9
900.4	COUNTY FOREST BLOCKS.....	11
900.5	FOREST COMPARTMENT MAPS.....	13
900.6	FOREST COVER TYPES - DETAIL.....	15
900.7	NATIONAL HIERARCHIAL FRAMEWORK OF ECOLOGICAL UNITS (NHFEU).....	17
900.8	GENERALIZED ENDANGERED RESOURCE LISTING FOR SAWYER COUNTY.....	19
900.9	LANDTYPE ASSOCIATIONS MAP.....	23
900.10	MAPS OF PROPOSED HARVEST AREAS.....	25
900.11	EVEN-AGED HARVEST AND THINNING SCHEDULE.....	33
900.12	UNEVEN-AGED HARVEST AND THINNING SCHEDULE.....	34
905	LAWS AND ORDINANCES.....	35
905.1	COUNTY FOREST LAW - s. 28.11, Wis. Stats.*	37
905.2	COUNTY ORDINANCES.....	42
905.2.1	County Forestry Ordinance*	42
905.2.2	County Owned Land Ordinance*	45
905.2.3	Shoreland Zoning Ordinance*	50
905.2.4	Firewood Permit Ordinance.....	59
905.2.5	Recreational Trail Sign Ordinance.....	60
910	TIMBER SALE HISTORY.....	63
910.1	ANNUAL GROSS TIMBER SALE RECEIPTS*	65
915	PERMITS, USE AGREEMENTS, POLICIES AND CONTRACTS.....	67
915.1	TIMBER SALE CONTRACT.....	68
915.2	FIREWOOD PERMIT*	73
915.3	BOUGH PERMIT.....	74
915.4	CHRISTMAS TREE PERMIT.....	75
915.5	LOW USE ACCESS PERMIT.....	76
915.6	RECREATIONAL CABIN PERMIT.....	77
915.7	HAYWARD ARCHERY CLUB PERMIT.....	79
915.8	MILITARY LAND LEASE.....	80
915.9	UTILITIY LAND USE AGREEMENT - CORPORATION.....	83

915.10	UTILITY LAND USE AGREEMENT - PRIVATE INDIVIDUAL.....	84
915.11	APPLICATION FOR APPOINTMENT OF TRAIL STEWARDS.....	85
915.12	NATIVE AMERICAN GATHERING PERMIT.....	87
915.13	WILDLIFE HABITAT IMPROVEMENT PROGRAM.....	88
915.14	STATE PERMITS.....	91
915.15	GUIDELINES FOR DEFINING FOREST WILDLIFE HABITAT MANAGEMENT PRIORITIES - MANUAL CODE 2112.....	93
915.16	FOREST OPENING MAINTENANCE AND CONSTRUCTION - MANUAL CODE 2112.1.....	95
915.17	PUBLIC FOREST LANDS HANDBOOK - 2460.5.....	96
915.18	GREEN TREE RETENTION GUIDELINES (GTR).....	97
915.19	PROPOSED MANAGEMENT PLAN FOR CAMBA BIKE TRAILS.....	107
915.20	AESTHETIC POLICY- AMERICAN BIRKEBEINER TRAIL.....	108
915.21	SAWYER COUNTY SNOWMOBILE ALLIANCE - SNOWMOBILE AND ATV GROOMING CONTRACT.....	109
920	FACILITIES AND REPORTS.....	113
920.1	RECREATIONAL INVENTORY*.....	114
920.2	STATEMENT OF COUNTY FOREST LOAN*.....	115
925	MISCELLANEOUS MAPS AND BROCHURES.....	117
925.1	CHEQUAMEGON AREA MOUNTAIN BIKE ASSOCIATION MAP.....	118
925.2	SAWYER COUNTY CROSS-COUNTRY SKI TRAIL MAP.....	119
925.3	HATCHERY CREEK PARK SKIING/HIKING TRAILS.....	120
925.4	SAWYER COUNTY SNOWMOBILE/ATV MAP.....	121
925.5	HUNTER WALKING TRAIL MAP.....	123
925.6	SAWYER COUNTY FOREST WATERS AND FISHING RESOURCES.....	125
925.7	FISHERY MANAGEMENT ON SAWYER COUNTY FOREST, BY MANAGEMENT STRATEGY.....	126
925.9	CERTIFIED COUNTY FOREST ROAD MAP.....	128

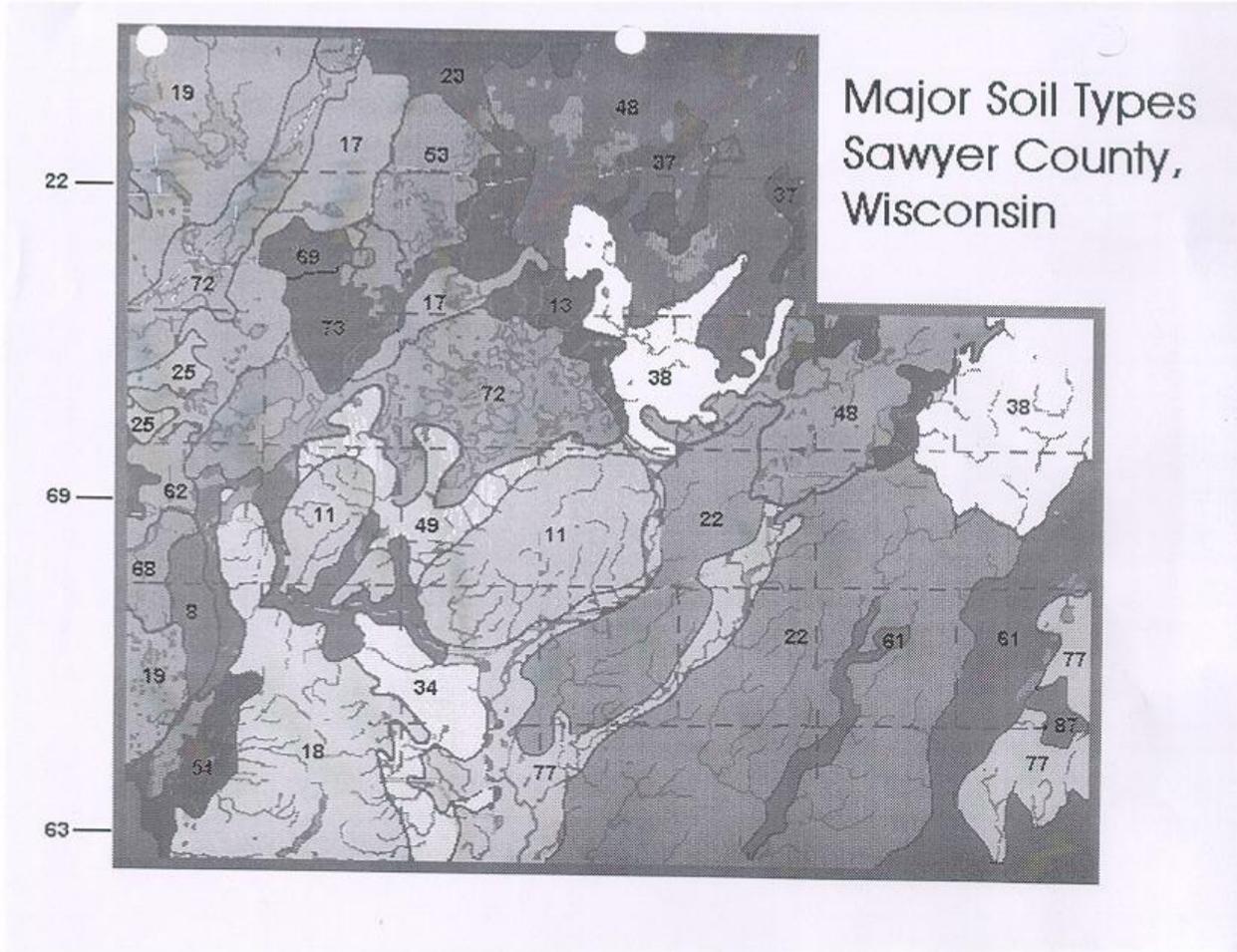
***Mandatory Items**

900

**RESOURCE MAPS
AND TABLES**

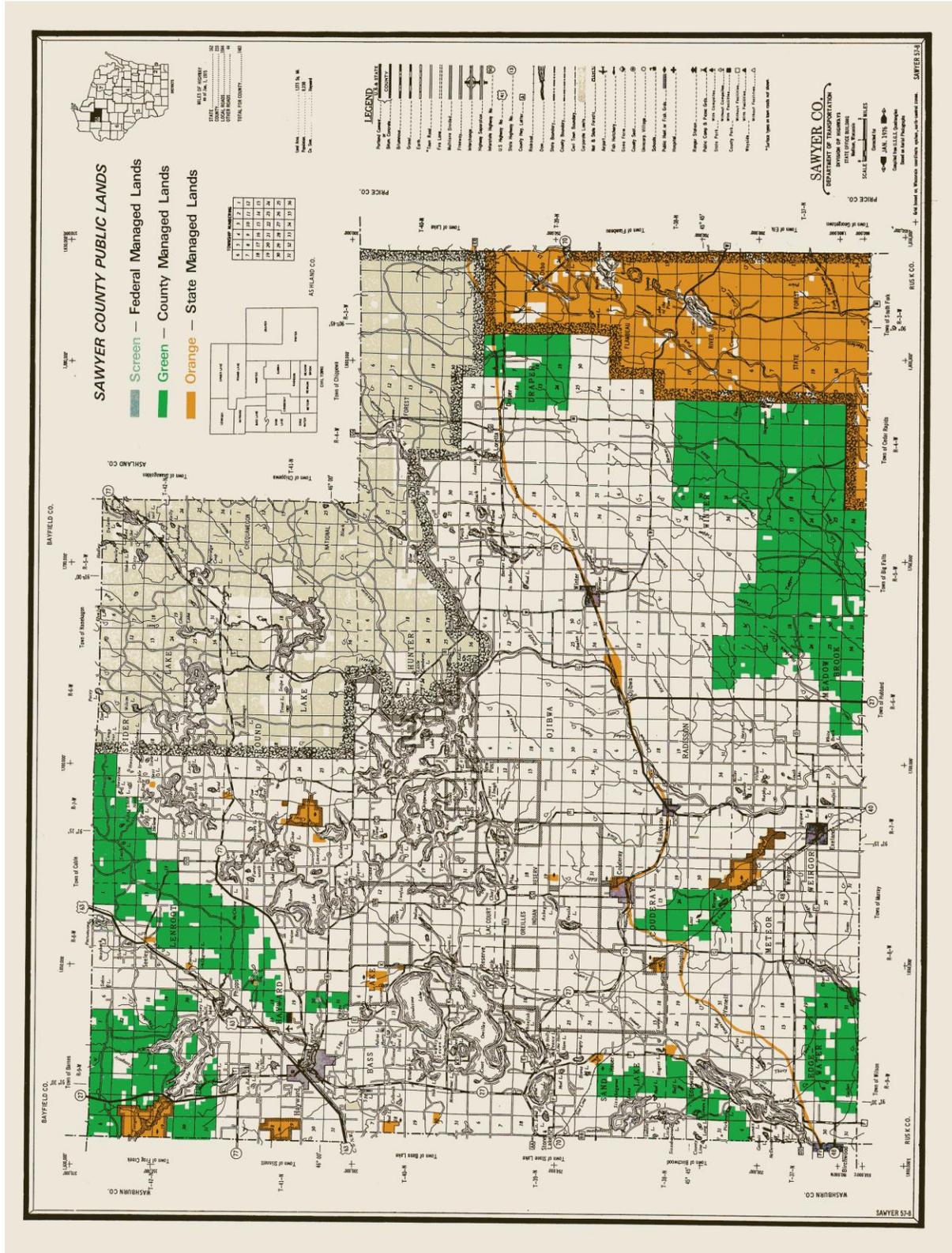
This page was left blank intentionally

GENERAL SOIL MAP OF SAWYER COUNTY*

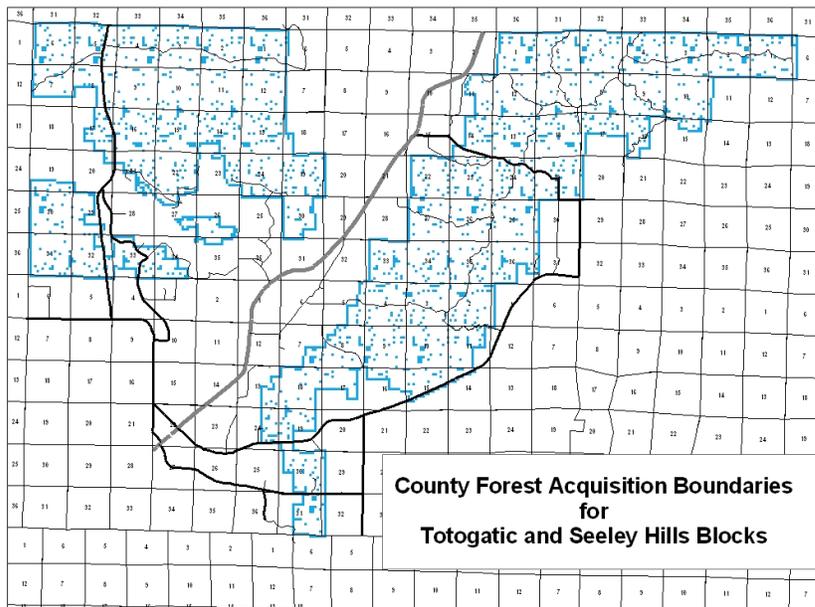
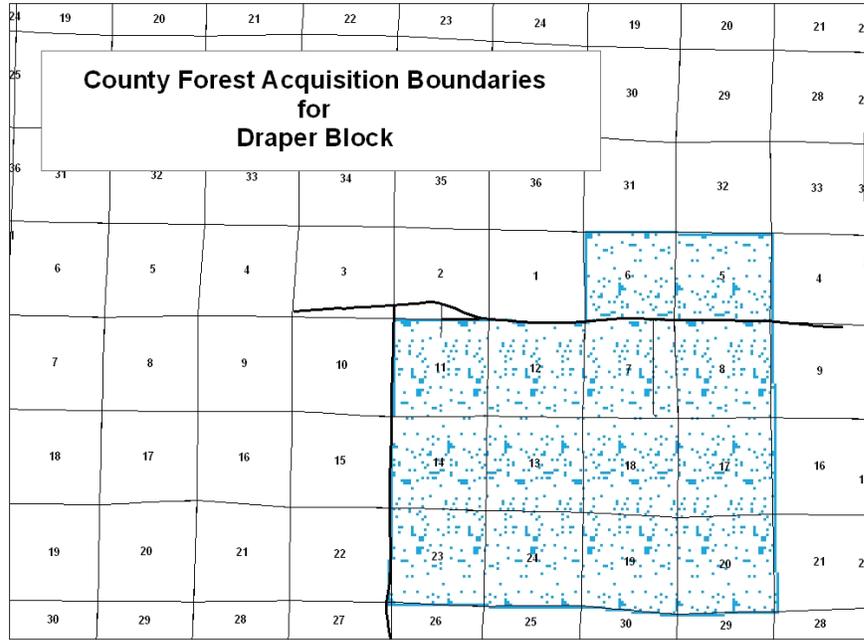


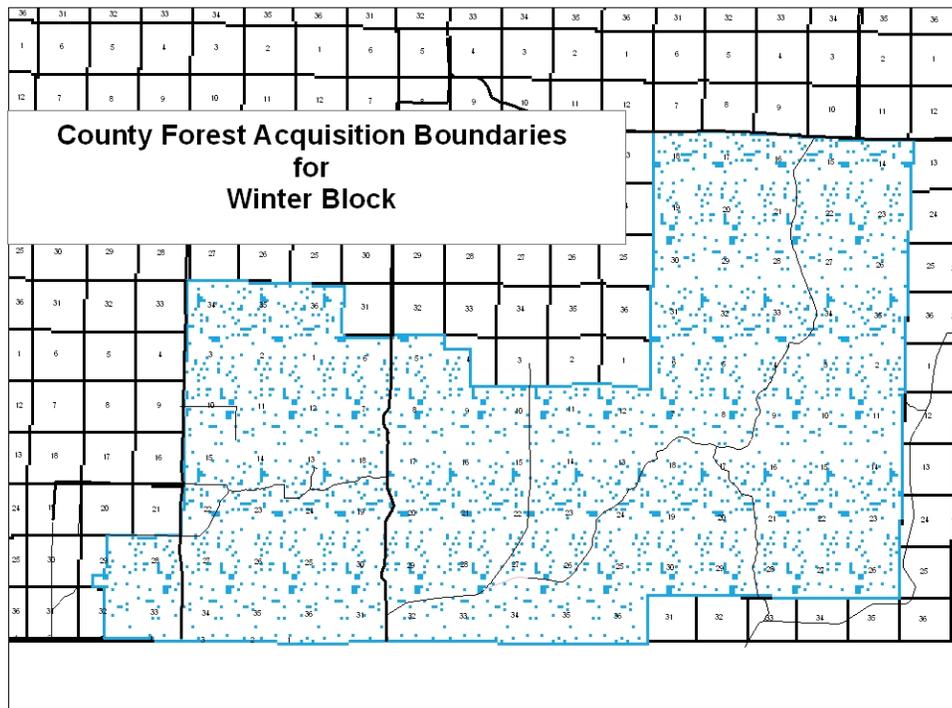
Major Soil Types of Sawyer County: Map Key and Descriptions

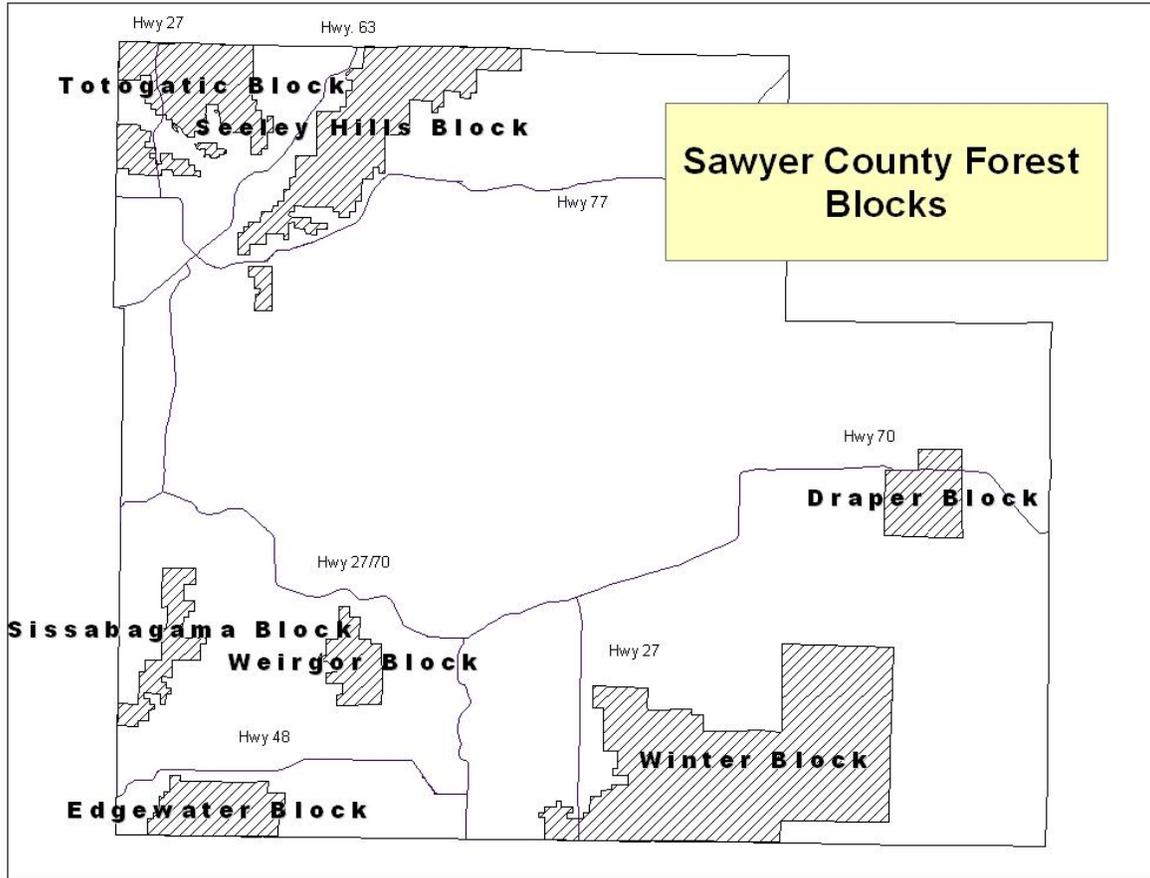
- 8 **Haugen-Amery** - Very deep, gently sloping to steep, moderately well drained and well drained, loamy soils on end moraines and disintegration moraines.
- 11 **Freon-Magnor-Newood** - Deep and very deep, nearly level to moderately steep, somewhat poorly drained and moderately well drained, loamy and silty soils on ground moraines.
- 13 **Sarwet-Metonga-Goodwit** - Moderately deep to very deep, gently sloping to moderately steep, moderately well drained and well drained, loamy and silty soils on glaciated bedrock (basalt and granite) controlled uplands.
- 17 **Pence-Sarona-Padus** - Very deep, nearly level to steep, well drained, loamy soils on disintegration moraines.
- 18 **Newot-Newood** - Deep and very deep, gently sloping to very steep, well drained and moderately well drained, loamy soils on disintegration and end moraines.
- 19 **Keweenaw-Pence** - Very deep, nearly level to steep, well drained and moderately well drained, sandy soils on disintegration moraines.
- 22 **Freeon-Magnor** - Deep and very deep, nearly level to sloping, moderately well drained and somewhat poorly drained, silty soils on ground moraines and disintegration moraines.
- 23 **Padus-Gogebic-Sarona** - Very deep, nearly level to steep, well drained to moderately well drained, loamy soils on ground moraines.
- 34 **Magnor-Freeon-Padus** - Deep and very deep, nearly level to steep, somewhat poorly drained to well drained, silty and loamy soils on ground moraines.
- 37 **Laona-Argonne-Sarona** - Moderately deep to very deep, nearly level to steep, well drained and moderately well drained, loamy soils on drumlinized ground moraines.
- 38 **Goodwit-Magnor** - Deep and very deep, nearly level and gently sloping, moderately well drained and somewhat poorly drained, silty soils on ground moraines.
- 48 **Padus-Keweenaw-Sarona** - Very deep, nearly level to steep, somewhat poorly drained to well drained, loamy and sandy soils on remnant moraines and outwash plains.
- 49 **Sarwet-Moodig-Sarona** - Very deep, nearly level to steep, somewhat poorly drained to well drained, loamy soils on moraines.
- 53 **Vilas-Pence** - Very deep, nearly level to steep, well drained to excessively drained, sandy soils on collapsed and uncollapsed outwash plains.
- 54 **Padus-Antigo-Pence** - Very deep, nearly level to steep, well drained loamy and sandy soils on collapsed outwash plains.
- 61 **Padus-Pence** - Very deep, nearly level to steep, well drained loamy and sandy soils on collapsed and uncollapsed outwash plains.
- 62 **Rosholt-Cress** - Very deep, nearly level to steep, well drained loamy and sandy soils on collapsed and uncollapsed outwash plains.
- 63 **Anigon-Antigo** - Very deep, nearly level to moderately steep, well drained silty soils on collapsed outwash plains.
- 68 **Grayling-Grettum-Mahtomedi** - Very deep, nearly level to steep, excessively drained to moderately well drained, sandy soils on outwash plains.
- 69 **Antigo-Sconsin** - Very deep, nearly level to moderately steep, well drained and moderately well drained, silty soils on outwash plains.
- 72 **Vilas-Sayner-Croswell** - Very deep, nearly level to steep, excessively drained to moderately well drained, sandy soils on outwash plains.
- 73 **Karlin-Pence-Padwet** - Very deep, nearly level to steep, somewhat excessively drained to moderately well drained, sandy and loamy soils on outwash plains.
- 77 **Antigo-Padus-Sconsin** - Very deep, nearly level to steep, well drained and moderately well drained, silty and loamy soils on outwash plains.
- 87 **Lupton-Tawas** - Very deep, nearly level, very poorly drained, organic soils on outwash plains, stream terraces, and moraines.



This page was left blank intentionally





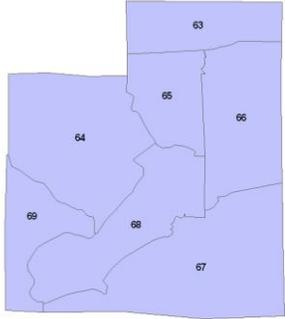


This page was left blank intentionally

FOREST COMPARTMENT MAPS

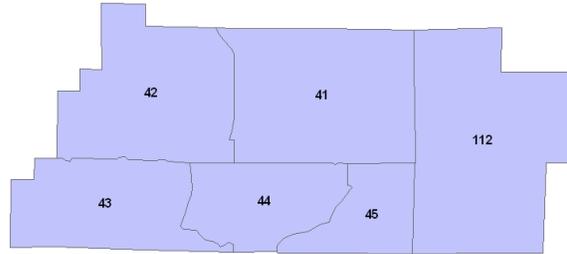
6546.14 Acres

Draper Block Compartment Numbers



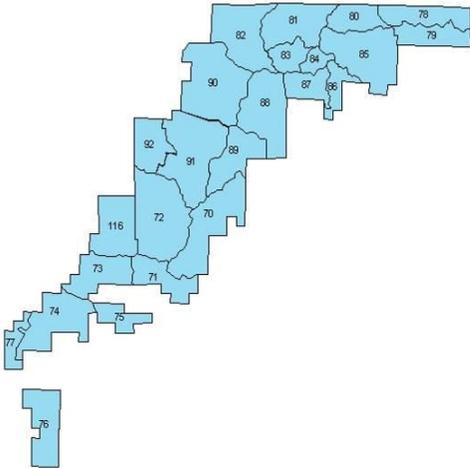
7383.96 Acres

Edgewater Block Compartment Numbers



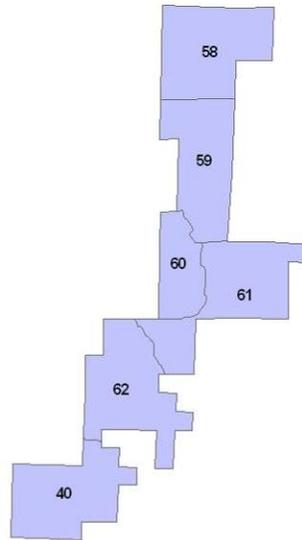
20,995.90 Acres

Seeley Hills Block Compartment Numbers

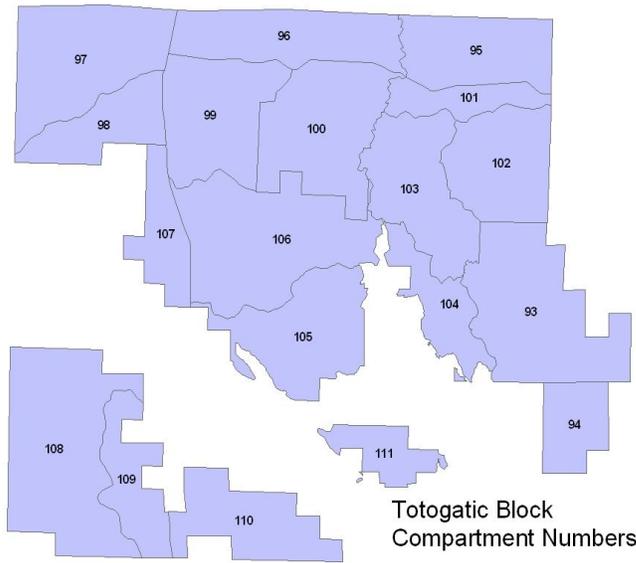


5667.97 Acres

Sissabagama Block Compartment Numbers

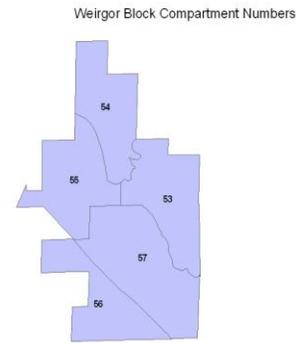


15,223.82 Acres



Totogatic Block
Compartment Numbers

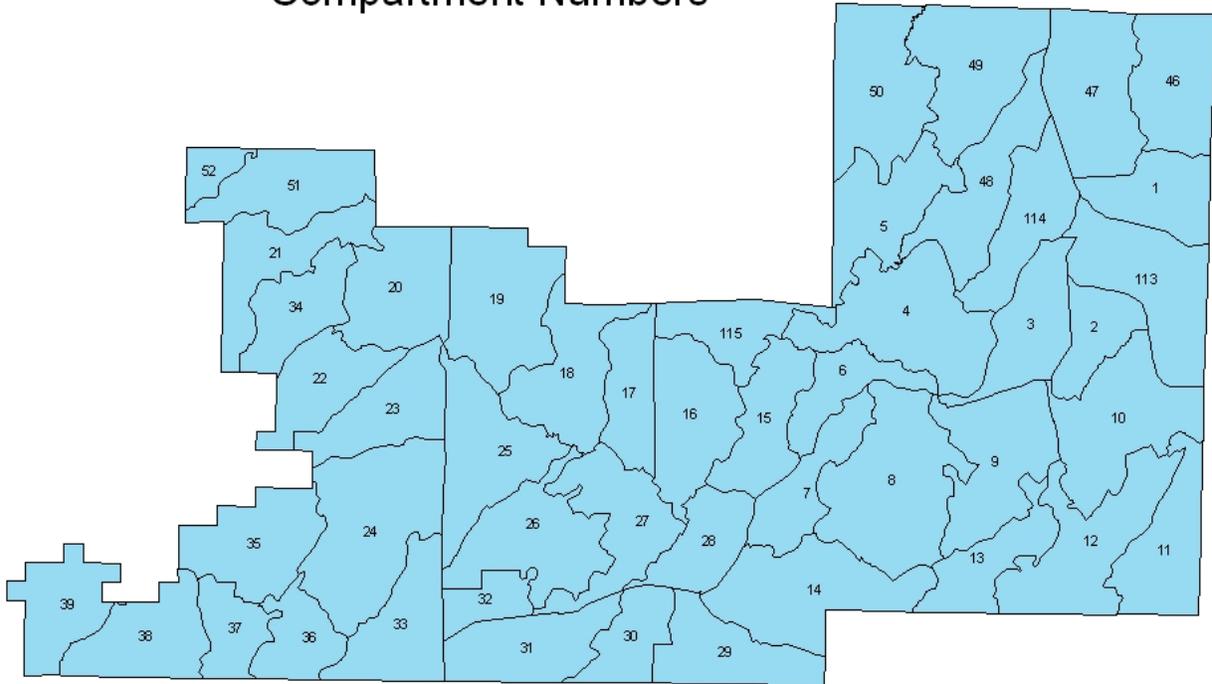
4570.77 Acres



Weirgor Block Compartment Numbers

53,549.79 Acres

Winter Block Compartment Numbers



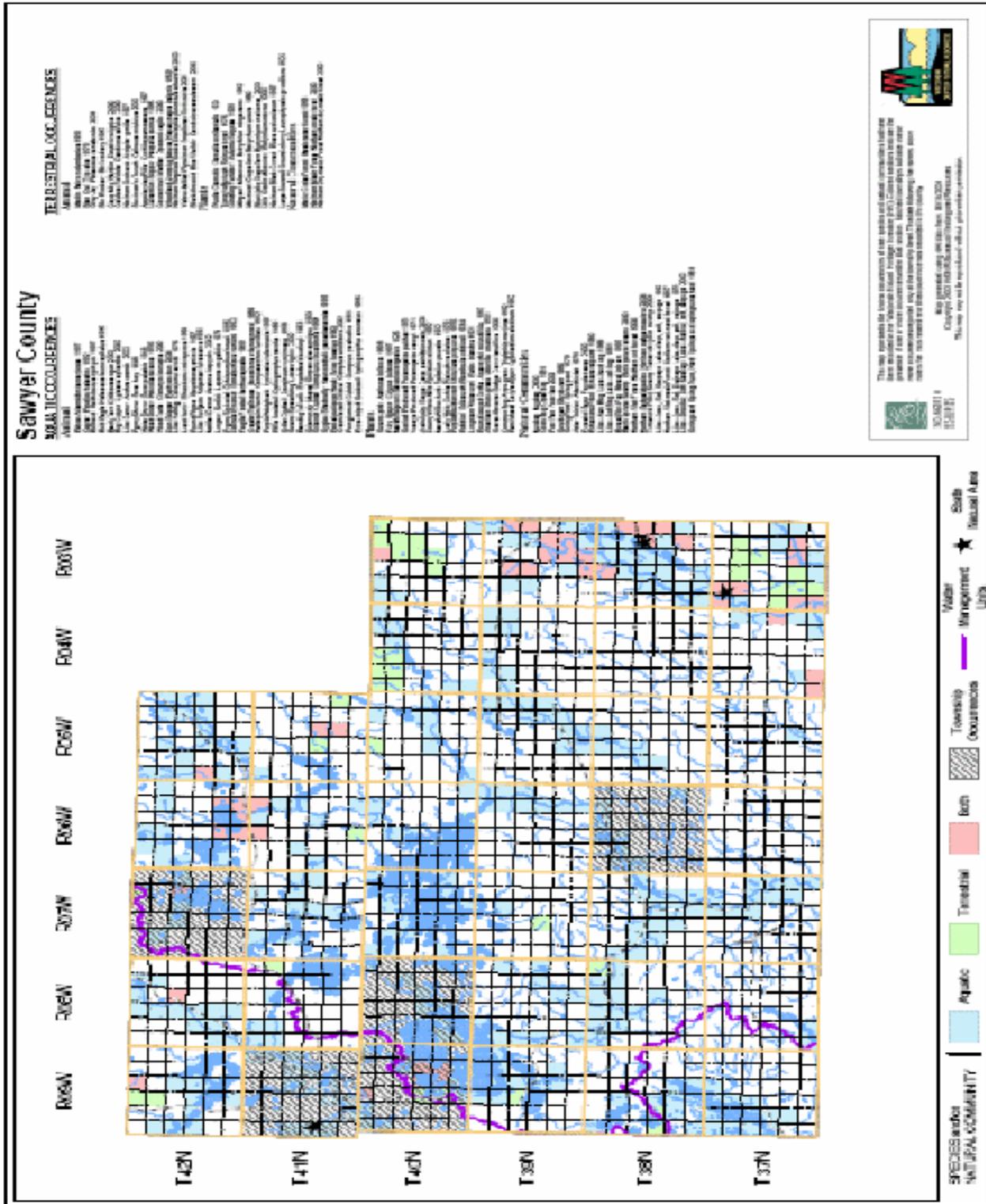
FOREST COVER TYPES - DETAIL**Forest Cover:**

<u>Land Cover Type</u>	<u>Acres</u>
Aspen	42,128
Aspen Off Site	20
White Birch	312
Cedar	270
Fir/Spruce	1,079
Hemlock/Hardwood	705
Red Maple	601
Northern Hardwood	24,489
Oak	8,235
Jack Pine	159
Red Pine	2,068
White Pine	4,212
Black Spruce	3,217
Swamp Conifer	749
Swamp Hardwood	2,963
Noncomm Swamp	1,416
Noncomm Cedar	343
Noncomm Spruce	273
Noncomm Tamarack	195
Tamarack	<u>990</u>
Total Forest Acres	94,424

Non-Forest Cover:

<u>Land Cover Type</u>	<u>Acres</u>
Farm Lane	2
Upland Grass	475
True Grasses	301
Herb Vegetation	546
Marsh	1,171
Muskeg Bog	959
Emergent Vegetation	51
Noncomm Grass	598
Noncomm Vegetation	40
Water	329
Lowland Brush	6,240
Alder	5,397
Willows	19
Minor Lake	385
Right of Way	5
Upland Brush	1,390
Rock Outcrops	<u>14</u>
Tot. Non Forest Acres	17,922
Total Property Acres	112,346

This page was left blank intentionally



This page was left blank intentionally

GENERALIZED ENDANGERED RESOURCE LISTING FOR SAWYER
COUNTY

RARE AND PROTECTED SPECIES ON OR NEAR SAWYER COUNTY FOREST

Common Name	State Status	Federal Status	Last Observation	Group
Northern Goshawk	SC/M		2003-04-15	Bird
Swainson's Thrush	SC/M		2000-06-09	Bird
Black-throated Blue Warbler	SC/M		2000-06-18	Bird
Cerulean Warbler	THR		2000-06-18	Bird
Cape May Warbler	SC/M		2000-06-16	Bird
Merlin	SC/M		2005-06-11	Bird
Connecticut Warbler	SC/M		2000-06-10	Bird
Barn Owl	END		1979-04-02	Bird
Great Blue Heron	SC/M		2004-04-29	Bird
Red-shouldered Hawk	THR		1980-05-14	Bird
Black Tern	SC/M		2003-06-05	Bird
Yellow-bellied Flycatcher	SC/M		2001-06-16	Bird
Bald Eagle	SC/FL	LT, PD	2005-06-17	Bird
Osprey	THR		2005-06-17	Bird
Gray Jay	SC/M		2005-05-29	Bird
Gray Wolf		END	2005-06-16	Mammal
Woodland Jumping Mouse	SC/N		1969-05-01	Mammal
Pigmy Shrew	SC/N		1848-06-21	Mammal
Water Shrew	SC/N		1948-06-16	Mammal
Northern Ringneck Snake	SC/H		2000-06-22	Snake
Wood Turtle	THR		2005-05-29	Turtle
Blanding's Turtle	THR		1983-06	Turtle
Lake Sturgeon	SC/H		1991	Fish
Lake Herring	SC/N		1976-11-12	Fish
Least Darter	SC/N		1991-05-20	Fish
Longear Sunfish	THR		1978-08-01	Fish
Greater Redhorse	THR		1989-08-16	Fish
Weed Shiner	SC/N		1976-07-20	Fish
Elktoe	SC/H		1997-06-12	Mussel
Purple Wartyback	END		1997-06-12	Mussel
Bullhead	END	C	1997-06-12	Mussel
Round Pigtoe	SC/H		1997-06-13	Mussel
Salamander Mussel	THR		1990-10-16	Mussel
Bird Rookery	SC		1985-06-26	Other
Mottled Darner	SC/N		2002-08-23	Dragonfly
Lake Darner	SC/N		2002-08-22	Dragonfly
Harlequin Darner	SC/N		1992-06-10	Dragonfly
Splendid Clubtail	SC/N		2002-07-02	Dragonfly
Skillet Clubtail	SC/N		1998-06-18	Dragonfly
Pronghorned Clubtail	SC/N		1991-06-20	Dragonfly
Fragile Forktail	SC/N		1989-06-09	Dragonfly
Swamp Spreadwing	SC/N		2002-08-19	Dragonfly
Stygian Shadowfly	SC/N		1995-06-08	Dragonfly
Extra-striped Snaketail	END		1996-06-17	Dragonfly

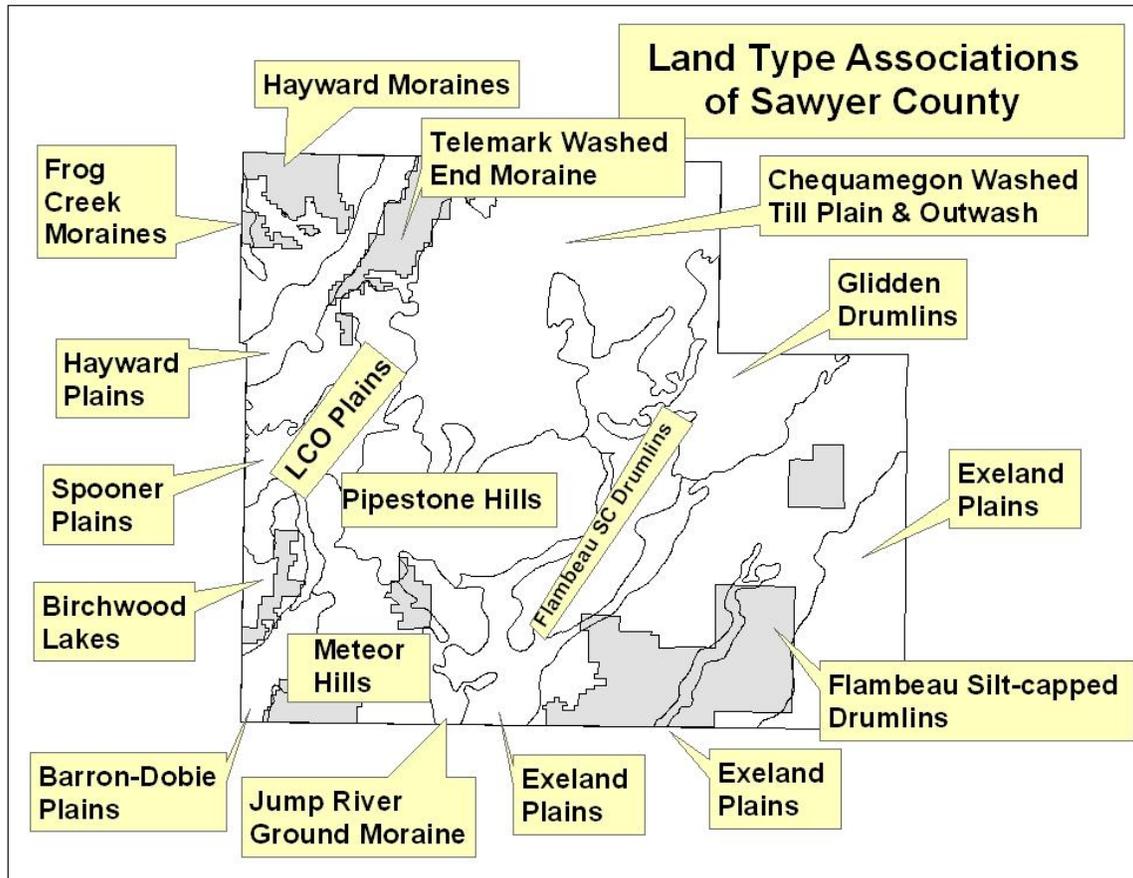
Common Name	State Status	Federal Status	Last Observation	Group
Riffle Snaketail	SC/N		1989-06-17	Dragonfly
Pygmy Snaketail	THR		2002-07-02	Dragonfly
Delicate Emerald	SC/N		1992-06-10	Dragonfly
Least Clubtail	SC/N		2002-07-09	Dragonfly
Laurentian Skipper	SC/N		1995-08-09	Butterfly
Dion Skipper	SC/N		2000-06-19	Butterfly
Bog Copper	SC/N		2000-07-19	Butterfly
Climbing Fumitory	SC		1969-10-03	Plant
Moonwort Grape-fern	END		1980	Plant
Mingan's Moonwort	SC		1992-08-22	Plant
Little Goblin Moonwort	END		2000-07-13	Plant
Blunt-lobe Grape-fern	SC		2000-06-27	Plant
Purple Clematis	SC		1924-06	Plant
Large-flowered, Ground-cherry	SC		1926-08	Plant
Northern Black Currant	SC		1997-06-02	Plant
Torrey's Bulrush	SC		1976-09-12	Plant
Round-leaved Orchid	THR		1993-06	Plant
Swamp-pink	SC		1998-05-31	Plant
Fairy Slipper	THR		1997-06-02	Plant
Assiniboine Sedge	SC		2000-05-11	Plant
Sparse-flowered Sedge	SC		2000-06-16	Plant
Ram's-head lady's-slipper	THR		1992-05-28	Plant
Longstem Water-wort	SC		1971-09-11	Plant
Robbin's Spikerush	SC		1934-07-26	Plant
Marsh Willow-herb	SC		1992-07-24	Plant
Downy Will-herb	SC		1992-07-25	Plant
American Shore-grass	SC		1931-08	Plant
Leafy White Orchid	SC		1979-06	Plant
Spotted Pondweed	END		1931-09-04	Plant
Vasey's Pondweed	SC		1971-07-19	Plant
Marsh Ragwort	SC		1926	Plant
Common Bog Arrow-grass	SC		1992-06-30	Plant
Appalachian Pillar	SC/N		1997-09-22	Plant
Mesic Cedar Forest	NA		1993-05-26	Community
Northern Dry-mesic Forest	NA		2000-06	Community
Northern Mesic Forest	NA		2000-08-22	Community
Alder Thicket	NA		1979-07	Community
Black Spruce Swamp	NA		2000-08-22	Community
Ephemeral Pond	NA		1980-10	Community
Forested Seep	NA		2000-07-27	Community
Lake--Deep, Soft, Drainage	NA		1979-07	Community
Lake--Deep, Soft Seepage	NA		1997-06-04	Community
Lake--Hard Bog	NA		1988-08	Community
Lake--Shall, Soft, Seepage	NA		2000-07-28	Community
Lake--Soft Bog	NA		1981-06	Community
Muskeg	NA		2000-08-21	Community
Northern Sedge Meadow	NA		2000-07-05	Community
Northern Wet Forest	NA		2000-06-30	Community
Northern Wet-mesic Forest	NA		1997-02	Community
Open Bog	NA		1981-06	Community
Poor Fen	NA		2000-06-16	Community

Common Name	State Status	Federal Status	Last Observation Group
Shrub-carr	NA		1980-10 Community
Spring Pond	NA		1979-07-09 Community
Springs, and Spring Runs, hard	NA		1981-11 Community
Tamarack (Poor) Swamp	NA		2000-08 Community

Key--Federal Status: LE-listed endangered; LT-Listed threatened; TL, PD-listed threatened, proposed for de-listing; LE-LT-listed endangered in part of its range, threatened in another part; C-candidate for future listing.

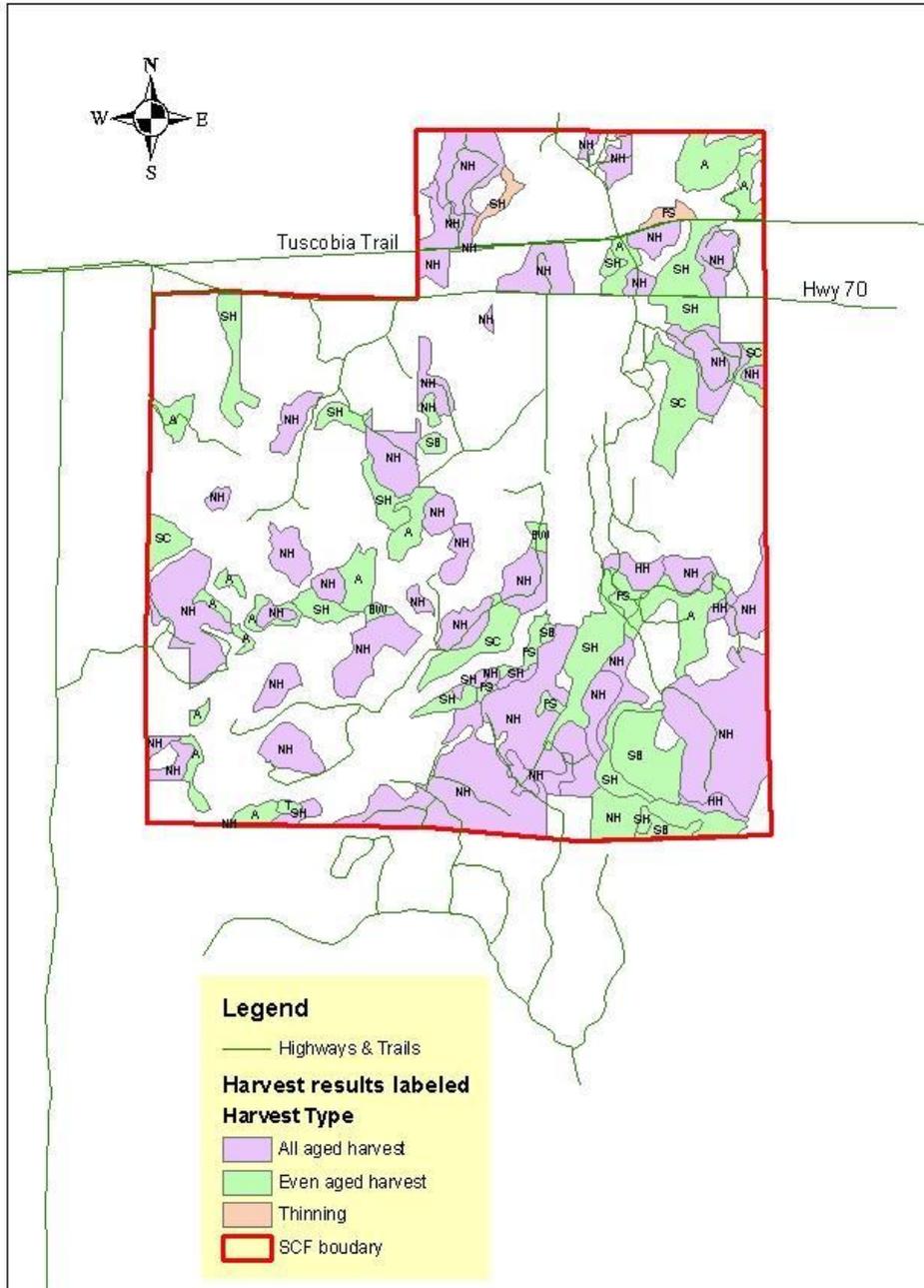
Key--State Status: END-endangered; THR-threatened; SC-special concern; SC/P-fully protected; SC/N-no laws regulating use, possession or harvesting; SC/H-take regulated by establishment of open/closed seasons; SC/M-fully protected by federal and state laws under the Migratory Bird Act; NA-protection status not applicable.

This page was left blank intentionally



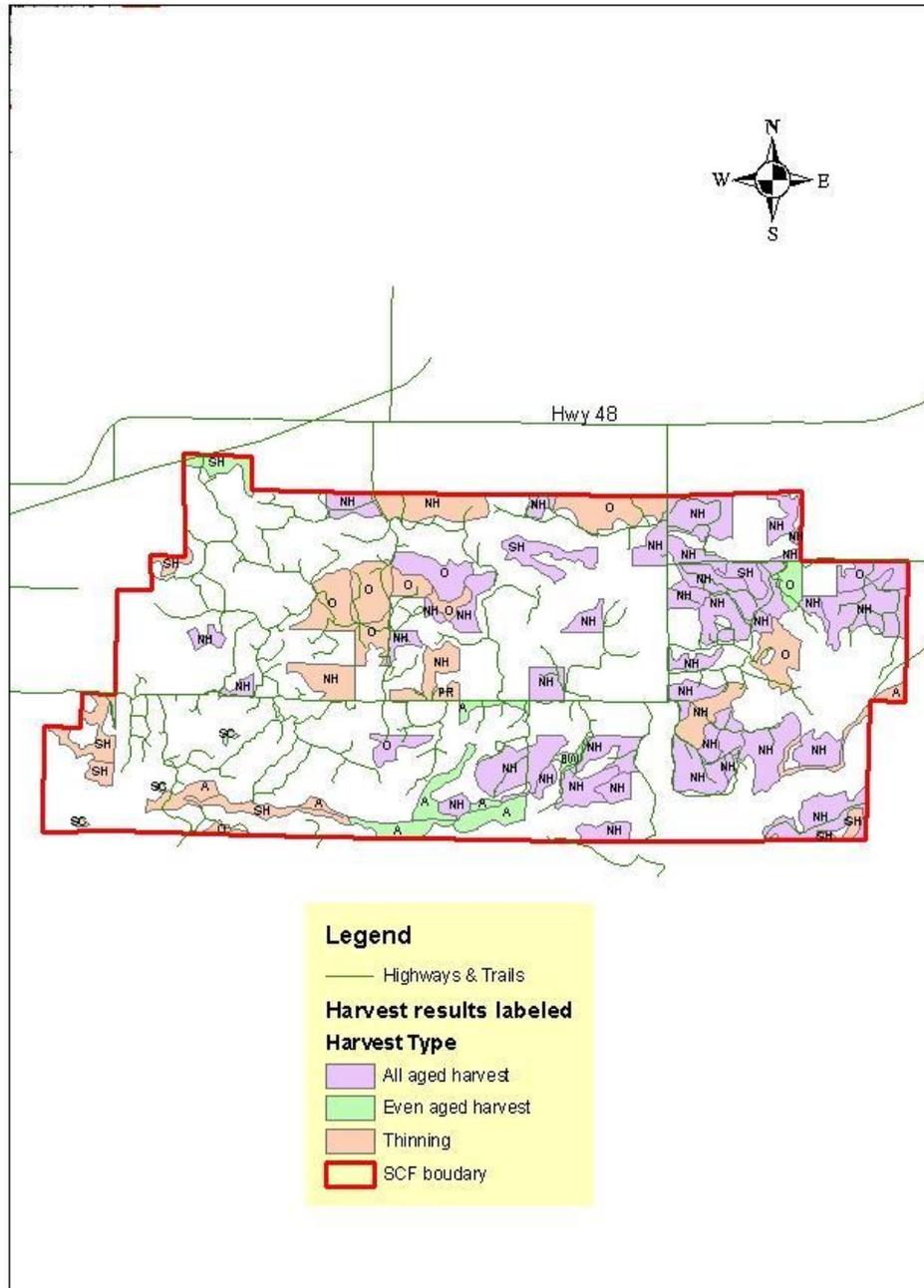
This page was left blank intentionally

Draper Block



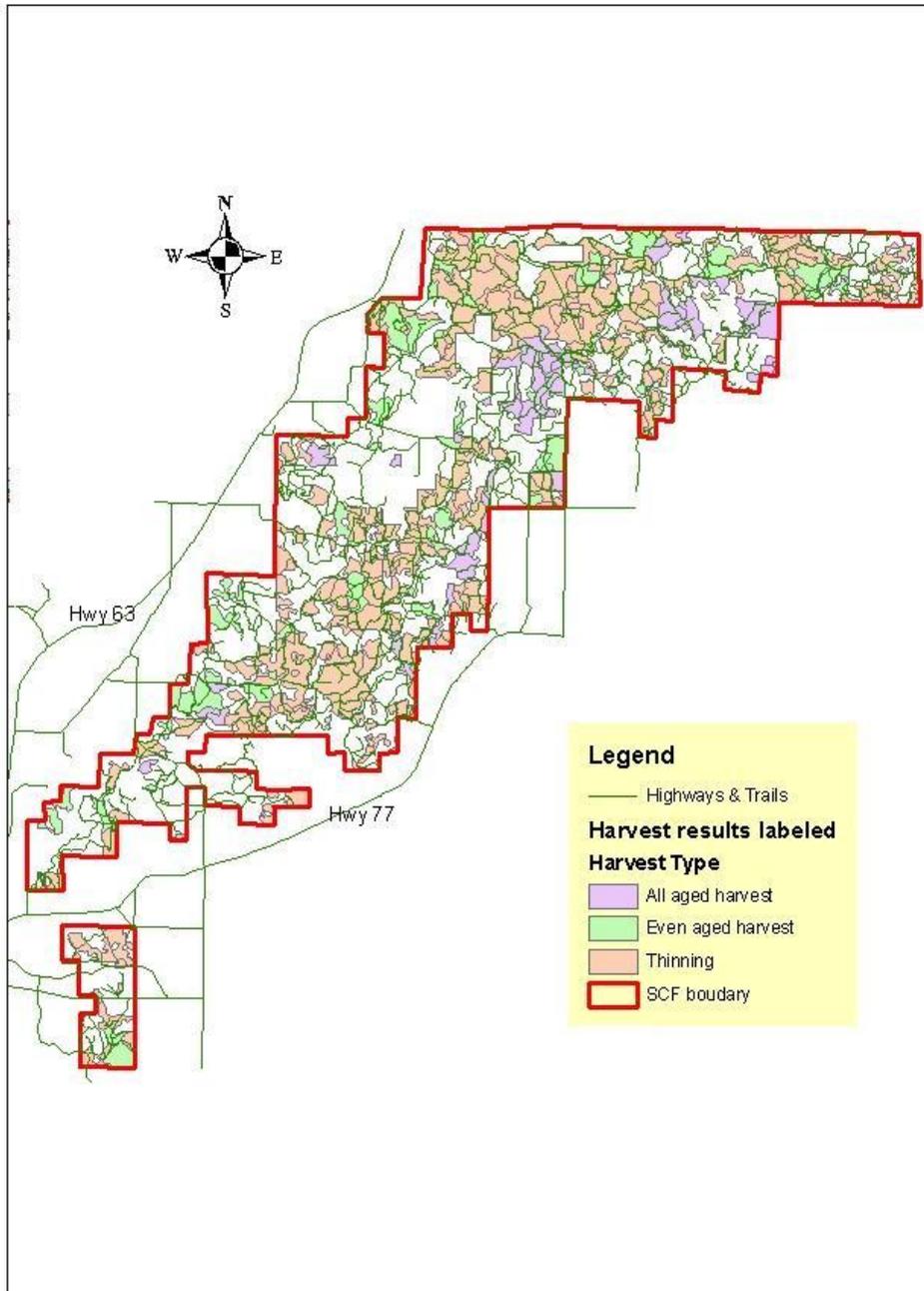
Map by Nick Koltz, Don Monson, Pete Wisdom 09/05

Edgewater Block



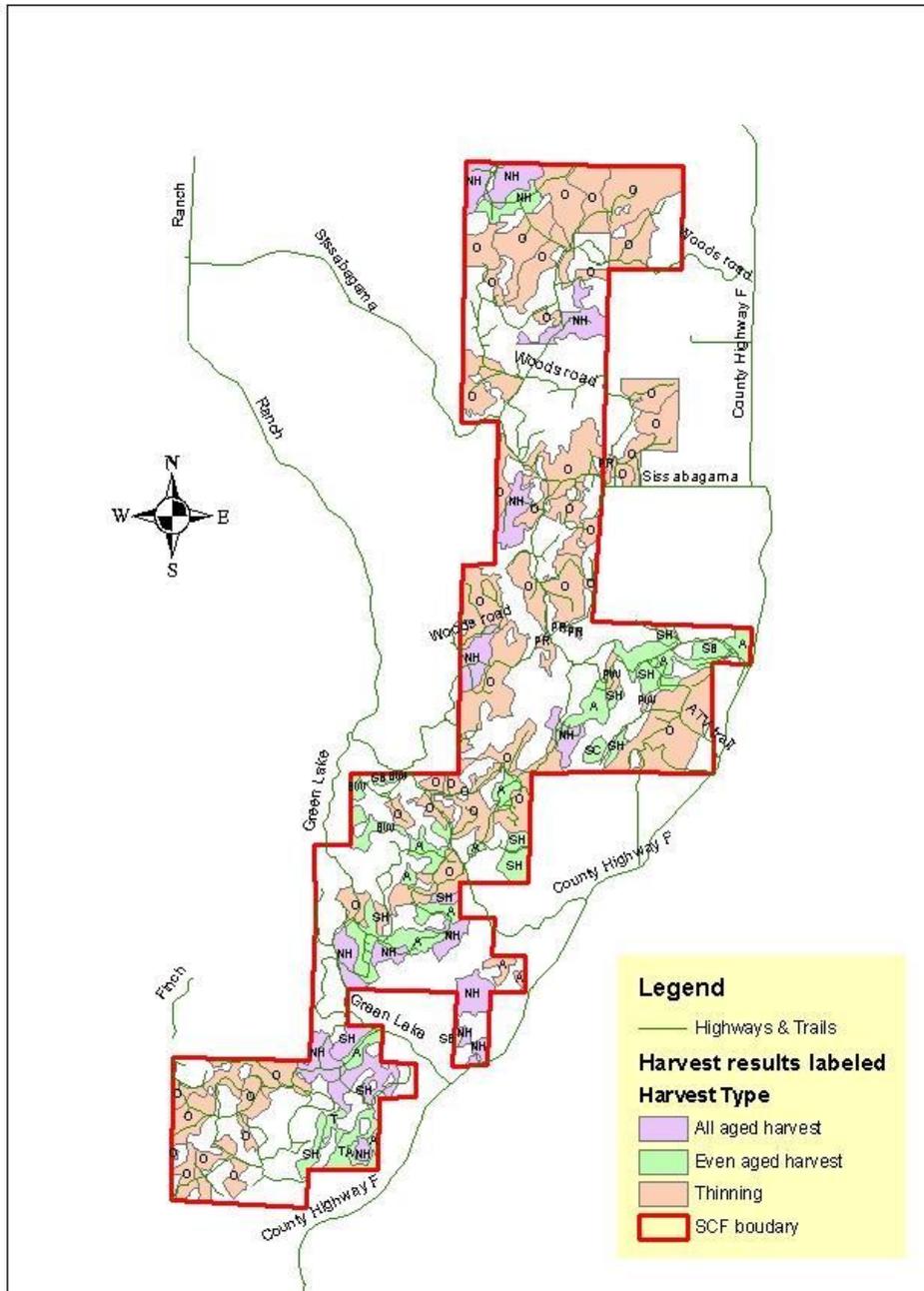
Map by Nick Koltz, Don Monson, Pete Wisdom 09/05

Seeley Hills Block



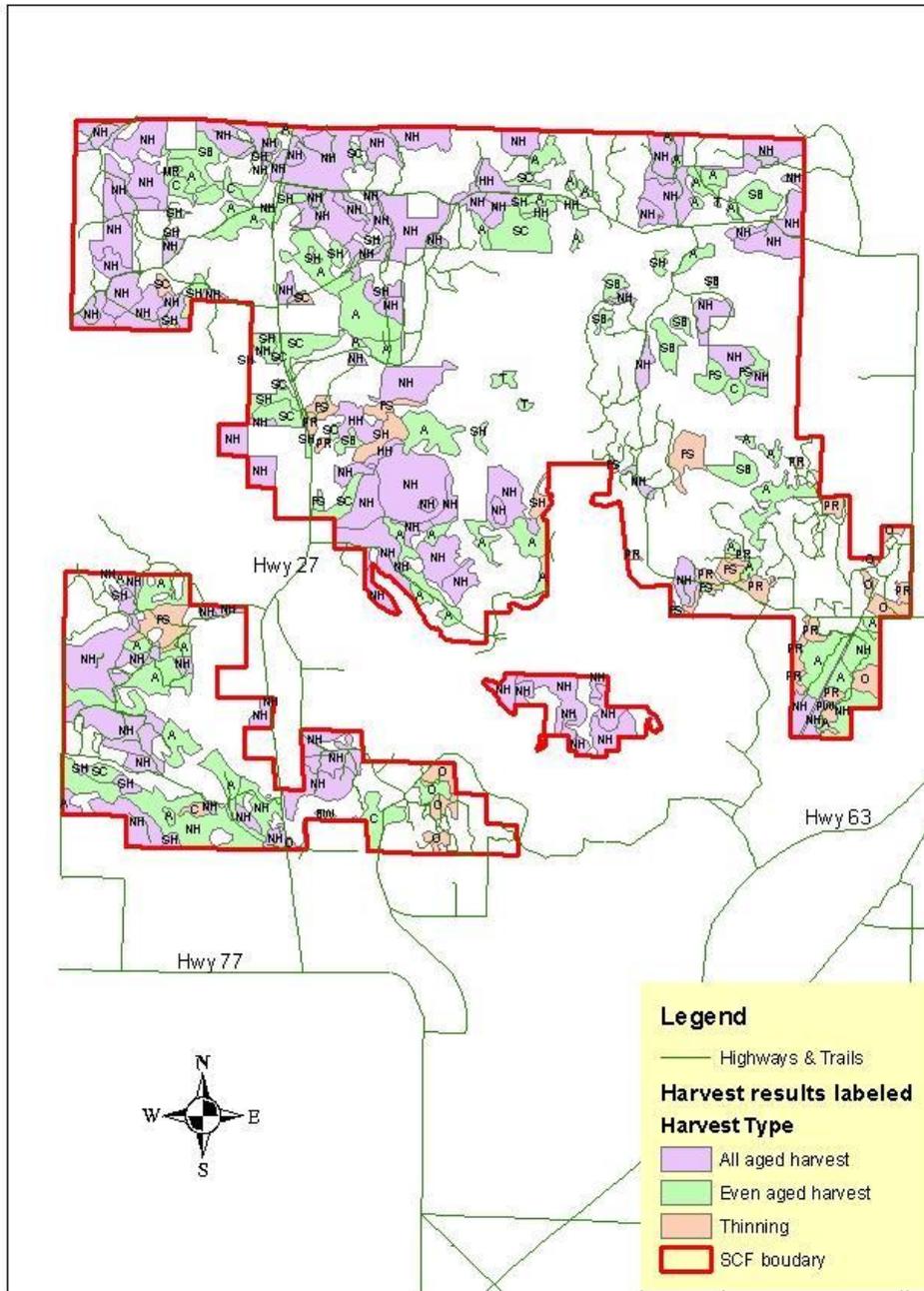
Map by Nick Koltz, Don Monson, Pete Wisdom 09/05

Sissabagama Block



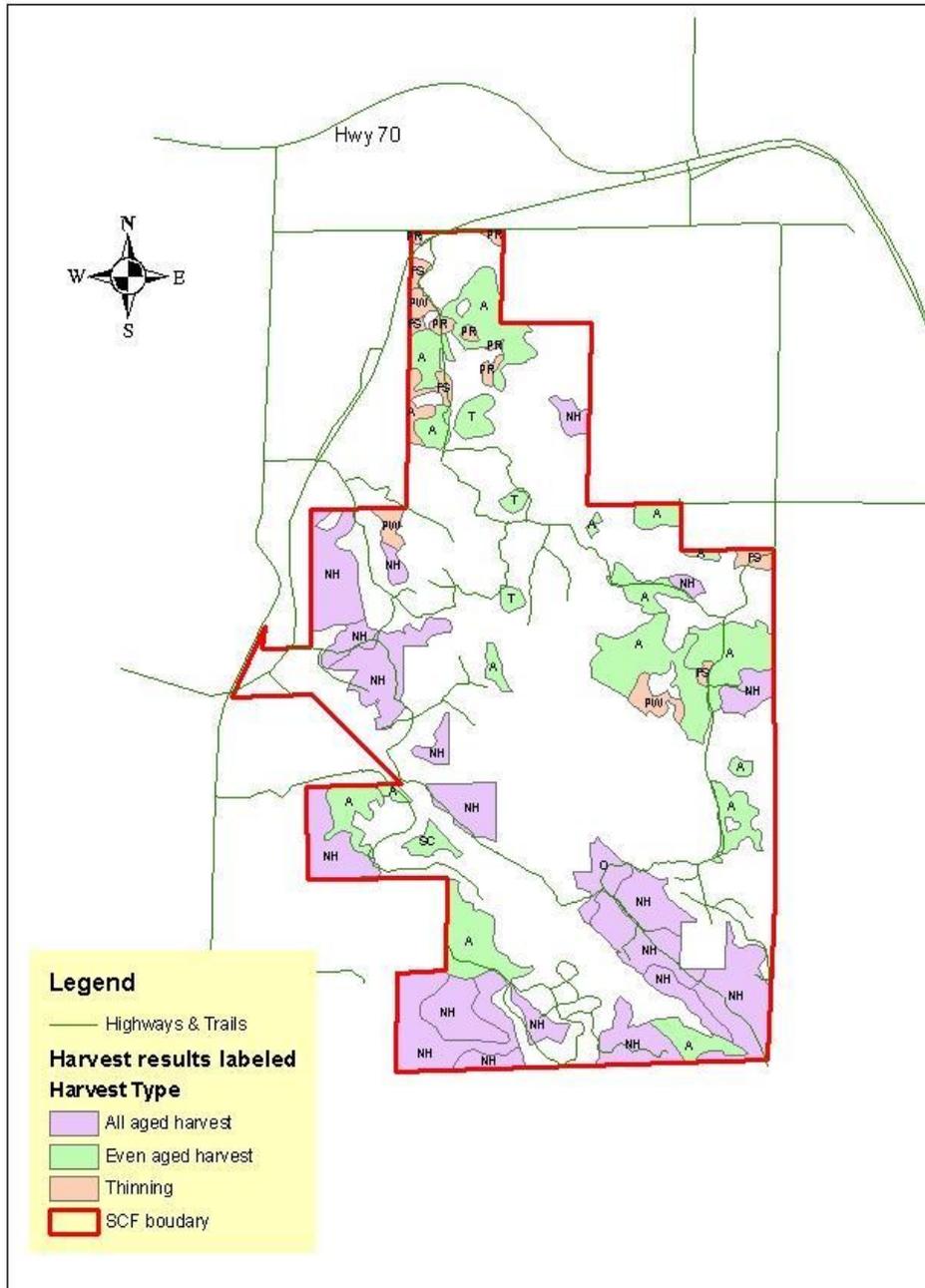
Map by Nick Koltz, Don Monson, Pete Wisdom 09/05

Totogatic Block



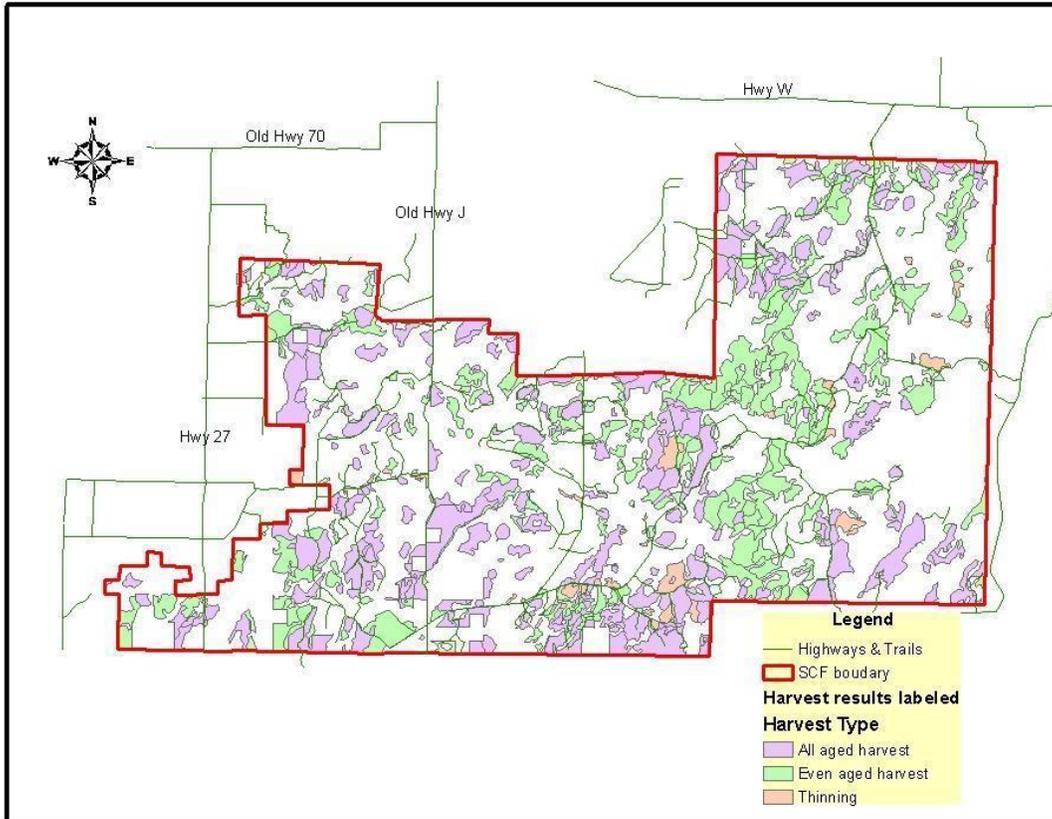
Map by Nick Koltz, Don Monson, Pete Wisdom 09/05

Weirgor Block



Map by Nick Koltz, Don Monson, Pete Wisdom 09/05

Winter Block



This page was left blank intentionally

SAWYER COUNTY FOREST
Even-Aged Harvest Schedule
Potential Acres to be Harvested by Year and Timber Types*

Year

Timber Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Avg.	Previous ¹ 10 Yr Avg	Adjusted ² Avg
Aspen	771	721	740	885	792	700	716	708	715	917	767	617	767
White Birch	78	0	0	0	0	0	0	0	0	0	8	23	8
Cedar**	205	0	0	0	0	0	0	0	0	0	21	19	21
Fir/Spruce	97	0	0	6	0	0	0	0	0	11	11	84	11
Oak	108	95	0	6	61	0	0	82	119	113	58	83	58
Jack Pine	0	0	0	0	0	0	0	0	0	0	0	3	0
Red Pine	62	0	0	0	0	0	0	0	0	0	6	0	6
White Pine	276	112	71	53	37	52	38	38	49	93	82	96	82
Black Spruce	137	119	0	43	56	0	0	0	0	68	42	6	42
Swamp Conifer	346	0	0	0	93	0	50	21	0	30	54	32	54
Swamp Hardwood	722	149	59	140	177	0	16	0	0	85	135	113	135
Tamarack	142	81	10	17	23	11	19	10	19	28	36	49	36
Northern Hardwood	586	0	0	0	106	0	0	10	73	75	85	0	85
Hemlock Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3530	1277	880	1150	1345	763	839	869	975	1420	1305	1125	1305

*Estimated acreage available to harvest by timber type based on a 8/18/05 DNR Forest Recon Computer printout. Actual acreage established for harvest will vary from the above table due to changing forest conditions (natural succession, storm damage, insect and disease effects, etc.), markets, available manpower needed to establish sales, and outdated information in the forest recon needing correcting/updating. Actual acreage established for harvest has traditionally been less than what the DNR recon printout has shown as needing establishment. During the last ten year period, approximately 2,159 acres per year have been established for sale (across all timber types and including both even and uneven-aged regeneration harvests, and thinnings). Attempt will be made to spread the harvest of any particular timber type in any one year to near the average listed in the far right column.

**Hemlock has not traditionally been harvested on the Sawyer County Forest and likely will not be during the next 10 years unless for experimental purposes (none are planned at this time).

¹Previous 10 Year Average obtained from Sawyer County Forest Comprehensive Land Use Plan from 1996-2005.

²Adjusted Average discounts the even-aged harvest of cedar, swamp conifer, swamp hardwood, and hemlock hardwood as these practices are currently not being conducted in Sawyer County.

SAWYER COUNTY FOREST
Uneven-Aged Harvest Schedule
Potential Acres to be Harvested by Year and Timber Types*

Year

Timber Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Avg.	Previous¹ 10 Yr Avg	Adjusted² Avg
Northern Hardwood	3434	1231	1394	1280	1269	1281	1217	1308	1231	1216	1485	1513	1485
Hemlock Hardwood**	32	0	393	0	0	0	0	0	0	0	43	27	43
Aspen	347	0	69	67	12	0	0	0	69	15	58	23	58
White Birch	0	0	0	0	0	0	0	0	0	0	0	3	0
Fir/Spruce	167	41	0	0	18	0	85	0	11	67	39	42	39
Oak	1268	283	230	301	641	592	528	283	77	130	433	429	433
Jack Pine	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Pine	950	80	210	20	0	98	64	95	176	36	173	102	173
White Pine	1116	105	310	99	349	100	11	0	56	61	221	217	221
Black Spruce	0	0	0	0	0	0	0	0	0	0	0	0	0
Swamp Conifer	20	0	0	0	0	0	0	0	0	0	2	3	2
Swamp Hardwood	626	30	57	106	76	29	0	0	0	45	97	65	97
Tamarack	0	0	0	0	0	0	0	0	0	2	0	4	0
Total	7950	1770	2663	1873	2365	2100	1905	1686	1620	1572	2550	2428	2551

*Estimated acreage available to harvest by timber type based on a 8/18/05 DNR Forest Recon Computer Printout. Actual acreage established for harvest will vary from the above table due to changing forest conditions (natural succession, storm damage, insect and disease effects, etc.), markets, available manpower needed to establish sales, and outdated information in the forest recon needing correcting/updating. Actual acreage established for harvest has traditionally been less than what the DNR recon printout has shown as needed establishment. During the last ten year period, approximately 2,159 acres per year have been established for sale (across all timber types and including both even and uneven-aged regeneration harvests, and thinnings). Attempt will be made to spread the harvest of any particular timber type in any one year to near the average listed in the far right column.

**Hemlock has not traditionally been harvested on the Sawyer County Forest and likely will not be during the next 10 years unless for experimental purposes (none are planned at this time).

¹Previous 10 Year Average obtained from Sawyer County Comprehensive Land Use Plan from 1996-2005.

²Adjusted Average discounts the uneven-aged harvest and thinning of hemlock hardwood, swamp conifer, and swamp hardwood as these practices are currently not being conducted in Sawyer County.

905

**LAWS AND
ORDINANCES**

This page was left blank intentionally

28.11 Administration of county forests.

(1) Purpose. The purpose of this section is to provide the basis for a permanent program of county forests and to enable and encourage the planned development and management of the county forests for optimum production of forest products together with recreational opportunities, wildlife, watershed protection and stabilization of stream flow, giving full recognition to the concept of multiple-use to assure maximum public benefits; to protect the public rights, interests and investments in such lands; and to compensate the counties for the public uses, benefits and privileges these lands provide; all in a manner which will provide a reasonable revenue to the towns in which such lands lie.

(2) Defined. "County forests" include all county lands entered under and participating under ch. 77 on October 2, 1963, and all county lands designated as county forests by the county board or the forestry committee and entered under the county forest law and designated as "county forest lands" or "county special-use lands" as hereinafter provided.

(3) Powers of county board. The county board of any such county may:

- (a) Enact an ordinance designating a committee to have charge of the county forests and specifying the powers, duties, procedures and functions of such committee. The members of such committee shall be appointed pursuant to s. 59.13 and may include well-qualified residents of the county who are not members of the county board.
- (b) Establish regulations for the use of the county forests by the public and to provide penalties for their enforcement.
- (c) Appropriate funds for the purchase, development, protection and maintenance of such forests and to exchange other county-owned lands for the purpose of consolidating and blocking county forest holdings.
- (d) Enter into cooperative agreements with the department for protection of county forests from fire.
- (e) Establish aesthetic management zones along roads and waters and enter into long-term cooperative leases and agreements with the department and other state agencies or federal agencies for the use of the county forests for natural resources research.
- (f) Establish transplant nurseries for growing seedlings, from the state forest nurseries, to larger size for planting in county forests, but no ornamental or landscape stock shall be produced in such nurseries.
- (g) Establish forest plantations and engage in silviculture, forest management and timber sales.
- (h) Engage in other projects designed to achieve optimum development of the forest.
- (i) Enter into leases or agreements, for terms not exceeding 10 years, to explore and prospect for ore, minerals, gas or oil upon any county forestlands. These leases or agreements shall contain proper covenants to safeguard the public interests in the lands involved and to guard against trespass and waste. The county board shall require proper security to ensure that the person engaged in exploration or prospecting fully informs the county of every discovery of ore, minerals, gas or oil and restores the land surface to an acceptable condition and value if no discovery of valuable deposit is made or if county forest lands are not withdrawn from entry under this section. Before a lease or agreement under this paragraph is effective, approval of the lease or agreement by the department is required. If the department finds that the proposed lease or agreement fully complies with the law and contains the proper safeguards, it shall approve the lease or agreement.
- (j) Enter into leases for the extraction of valuable deposits of ore, minerals, gas or oil upon any county forestland. If the extraction can be accomplished without permanently affecting the surface of the land, extraction leases may be entered into and extraction may occur while the land remains county forestlands. If the extraction cannot be accomplished without permanently affecting the surface of the land, extraction may not commence until the land is withdrawn as county forestland. Before an extraction lease under this paragraph is effective, approval of the lease by the department is required.
- (k) Establish energy conservation projects which permit individual members of the public to remove up to 10 standard cords of wood without charge from county forest lands for individual home heating purposes. The county board shall limit removal of wood for energy conservation projects to wood that is unsuitable for commercial sale. The county board may require a permit to remove wood for energy conservation projects and may charge a fee for the permit to administer projects established under this paragraph. A county board shall restrict participation in projects established under this paragraph to residents, as defined under s. 29.001(69), but may not restrict participation to residents of the county.

(4) Entry of county forest lands.

(a) A county may file with the department an application for entry of county-owned land under this section. Such application shall include the description of the land and a statement of the purposes for which the lands are best suited. Upon the filing of such application the department shall investigate the same and it may conduct a public hearing thereon if it deems it advisable to do so at such time and place as it sees fit.

- (b) If after such investigation the department finds that the lands constitute a well blocked county forest unit or that they block in with other established county forest lands and are otherwise suitable for the purposes of this section it shall make an order of entry designating such lands as county forest lands. All county lands entered under and participating under ch. 77 on October 2, 1963 shall be designated "county forest lands" without further order of entry.
- (c) If the department finds that the lands are not suited primarily for timber production and do not otherwise qualify for entry under par. (b) but that they are suitable for scenic, outdoor recreation, public hunting and fishing, water conservation and other multiple-use purposes it shall make an order of entry designating such lands as "county special-use lands".
- (d) A copy of the order of entry shall be filed with the county clerk and the county forestry committee, and the order shall also be recorded with the register of deeds.
- (e) From and after the filing of such order of entry, the lands therein described shall be "county forest lands" or "county special-use lands", as the case may be, and shall so remain until withdrawn as hereinafter provided.
- (f) The department may construct and use forest fire lookout towers, telephone lines and fire lanes or other forest protection structures on any lands entered under this section and the county clerk of such county shall execute any easement on or over such lands which the department may require for forest protection. The general public shall enjoy the privilege of entering such lands for the purpose of hunting, fishing, trapping and other recreation pursuits subject to such regulation and restrictions as may be established by lawful authority.

(5) Management

- (a) A comprehensive county forest land use plan shall be prepared for a 15-year period by the county forestry committee with the assistance of technical personnel from the department and other interested agencies, and shall be approved by the county board and the department. The plan shall include land use designations, land acquisition, forest protection, annual allowable timber harvests, recreational developments, fish and wildlife management activities, roads, silvicultural operations and operating policies and procedures; it shall include a complete inventory of the county forest and shall be documented with maps, records and priorities showing in detail the various projects to be undertaken during the plan period. The plan may include an application for aids under s. 23.09 (17m). The application will be considered an annual application for these aids during the 15-year period of the plan. The initial plan may be revised as changing conditions require. Upon expiration of the initial 15-year period, and upon expiration of each subsequent 15-year period, the plan shall be revised and shall be effect for another 15-year period. If a plan is not revised on or before December 31, 2005, that plan shall remain in effect until such time as that plan is revised and the revised plan takes effect.
- (b) An annual work plan and budget based upon the comprehensive plan shall be prepared by the county forestry committee with the assistance of a forester of the department. The plan shall include a schedule of compartments to be harvested and a listing by location of management projects for the forthcoming year. In addition the plan shall include other multiple-use projects where appropriate. A budget, listing estimated expenditures for work projects, administration and protection of the forest, shall accompany the annual plan both to be submitted to the county board for approval at the November meeting.

(5m) Grants for county forest administrators.

(a) The department may make grants, from the appropriation under s. 20.370(5)(bw), to counties having lands entered under sub. (4) to fund all of the following for one professional forester in the position of county forest administrator or assistant county forest administrator:

1. Up to 50% of the forester's salary.
2. Up to 50% of the forester's fringe benefits, except that the fringe benefits may not exceed 40% of the forester's salary.

(b) The department may not make a grant under this subsection for a year for which the department has not approved the annual work plan that was approved by the county board under sub. (5)(b). The department may not base the amount of a county's grant on the acreage of the county's forest land.

(c) The department may choose to not make a grant under this subsection if the county board for that county is more than one year delinquent in approving a comprehensive county forest land use plan or revised under sub. (5)(a).

(5r) Sustainable forestry grants.

(a) In this subsection, "sustainable forestry" has the meaning given in s. 28.04(1)(e).

(b) The department may make grants, from the appropriation under s. 20.370(5)(bw), to counties having lands entered under sub. (4) to fund the cost of activities designed to improve sustainable forestry on the lands.

(c) The department may choose to not make a grant to a county under this subsection if the county board for that county is more than one year delinquent in approving a comprehensive county forest land use plan or revised plan under sub. (5)(a).

(6) Timber sales and cultural cuttings.

(a) *Limitations.* The county forestry committee is authorized to sell merchantable timber designated in timber sale contracts and products removed in cultural or salvage cuttings. No timber sale contract is required for wood removed under sub. (3)(k). All timber sales shall be based on tree scale or on the scale, measure or count of the cut products; the Scribner Decimal C log rule shall be used in log scaling. All cuttings shall be limited to trees marked or designated for cutting by qualified personnel recognized as such by the department.

(b) *Procedures.*

1. Any timber sale with an estimated value of \$3,000 or more shall be by sealed bid or public sale after publication of a classified advertisement announcing the sale in a newspaper having general circulation in the county in which the timber to be sold is located. Any timber sale with an estimated value below \$3,000 may be made without prior advertising. Any timber sale with an estimated value of \$3,000 or more requires approval of the secretary.
2. Timber sales shall be subject to presale appraisals by qualified personnel recognized as such by the department to establish minimum sales value. Appraisal methods and procedures shall be approved by the department.
3. No merchantable wood products may be cut on any lands entered under this section unless a cutting notice on forms furnished by the department is filed with and approved by the department. Any unauthorized cutting shall render the county liable to the state in an amount equal to double the stumpage value of the cut products which amount shall be paid by the county to the state. If the county does not pay the amount of such penalty to the state, the department may withhold such amount from future state contributions to the county.
4. Within 90 days after completion of any cutting operation, including timber trespass, but not more than 2 years after filing the cutting notice, the county shall transmit to the department on forms furnished by the department, a report of merchantable wood products cut. The department may conduct any investigations on timber cutting operations that it considers to be advisable, including the holding of public hearings on the timber cutting operations, and may assess severance share payments accordingly.

(7) County forest credit.

The department shall set up an account for each county showing the lands entered; the sums previously paid under s. 28.14, 1961 Stats.; the sums hereafter paid under this section; the sums previously received in the form of four-fifths severance tax collected pursuant to s. 77.06(5), 1961 Stats.; the sums received as forestry fund severance share under this section; and the sums previously reimbursed to the state on withdrawn lands pursuant to s. 28.12(4), 1961 stats. Whenever the forestry fund account of any county shows an overpayment of such severance tax or severance share as of June 30 of any year, the department shall return such overpayment to the county. All severance taxes previously paid by any county and deposited in the general fund shall be credited to the forestry fund account of the county. If such credit exceeds the balance due to the forestry fund account from such county, the overpayment shall be credited to the county and applied in lieu of future severance shares due to the state until the county account is balanced.

(8) State contribution.

(a) *Acreage payments.* As soon after April 20 of each year as feasible, the department shall pay to each town treasurer 30 cents per acre, based on the acreage of such lands as of the preceding June 30, as a grant out of the appropriation made by s. 20.370(5)(bv) on each acre of county lands entered under this section.

(b) *Forestry fund account.*

1. A county having established and maintaining a county forest under this section is eligible to receive from the state from the appropriations under s. 20.370(5)(bq) and (bs) an annual payment as a non-interest bearing loan to be used for the purchase, development, preservation and maintenance of the county forest lands and the payment shall be credited to a county account to be known as the county forestry aid fund. A county board may, by a resolution adopted during the year and transmitted to the department by December 31, request to receive a payment of not more than 50 cents for each acre of land entered and designated as "county forest land". The department shall review the request and approve the request if the request is found to be consistent with the comprehensive county forest land use plan. If any lands purchased from the fund are sold, the county shall restore the purchase price to the county forestry aid fund. The department shall pay to the county the amount due to it on or before March 31 of each year, based on the acreage of the lands as of the preceding June 30. If the amounts in the appropriations under s. 20.370(5)(bq) and (bs) are not sufficient to pay all of the amounts approved by the department under this subdivision, the department shall pay eligible counties on a prorated basis.
2. The department may allot additional interest free forestry aid loans on a project basis to individual counties to permit the counties to undertake meritorious and economically productive forestry operations, including land acquisitions. These additional aids may not be used for the construction of recreational facilities or for fish and game management projects. Application shall be made in the manner and on forms

prescribed by the department and specify the purpose for which the additional aids will be used. The department shall make an investigation as it deems necessary to satisfy itself that the project is feasible, desirable and consistent with the comprehensive plan. If the department so finds, it may make allotments in such amounts as it determines to be reasonable and proper and charge the allotments to the forestry fund account of the county. These allotments shall be credited by the county to the county forestry aid fund. After determining the loans as required under subd. 1., the department shall make the remainder of the amounts appropriated under s. 20.370(5)(bq) and (bs) for that fiscal year available for loans under this subdivision. The department shall also make loans under this subdivision from the appropriations under s. 20.370(5)(bt) and (bu).

3. All payments made under this paragraph shall be known as the "forestry fund account".

(9) County forest severance share.

(a) Except as provided under pars. (b) and (c), on timber cut from lands entered as "county forest lands" the county shall pay a severance share of not less than 20% of the actual stumpage sales value of the timber. A higher rate of payment may be applied when agreed upon by the department and the county. When cutting is done by the county and timber is not sold or is sold as cut forest products the severance share shall be 20% of the severance tax schedule in effect under s. 77.06(2).

(ag) The severance share paid by a county to the state shall be credited to the forestry fund account of the county and shall be divided into 2 payments as follows:

1. An acreage loan severance share payment that is equal to the product of multiplying the amount of the severance share paid by the county by the percentage of the balance due in the forestry fund account of the county that is attributable to loans made under sub. (8)(b)1.
2. A project loan severance share payment that is equal to the product of multiplying the amount of the severance share paid by the county by the percentage of the balance due that is attributable to loans made under sub. (8)(b)2.

(am) The acreage loan severance share payments shall be deposited in the conservation fund and credited to the appropriation under s. 20.370(5)(bq), and the project loan severance share payments shall be deposited in the conservation fund and credited to the appropriation under s. 20.370(5)(bu).

(ar) Notwithstanding s. 20.001(3)(c), if the sum of the unencumbered balances in the appropriations under s. 20.370(5)(bq), (bt) and (bu) exceeds \$400,000 on June 30 of any fiscal year, the amount in excess of \$400,000 shall lapse from the appropriation under s. 20.370(5)(bq) to the conservation fund, except as provided in subd. 2.

2. Notwithstanding s. 20.001(3)(c), if the amount in the appropriation under s. 20.370(5)(bq) is insufficient for the amount that must lapse under subd. 1., the remainder that is necessary for the lapse shall lapse from the appropriation under s. 20.370(5)(bu).

(b) No severance share payment is required if there is no balance due in the forestry fund account of the county. A severance share payment shall not exceed the balance due in the forestry fund account of the county.

(c) No severance share payment is required for wood removed from county forest lands for energy conservation projects established under sub. (3)(k).

(d) Of the gross receipts from all timber sales on the county forests 10% shall be paid annually by the county to the towns having county forest lands on the basis of acreage of such lands in the towns.

(11) Withdrawals.

(a) 1. The county board may by resolution adopted by not less than two-thirds of its membership make application to the department to withdraw lands entered under this section. The county board shall first refer the resolution to the county forestry committee, which shall consult with an authorized representative of the department in formulating its withdrawal proposal. The county board shall not take final action on the application until 90 days after referral of the application to the forestry committee or until the report of the forestry committee regarding the application has been filed with the board. The application shall include the land description, a statement of the reasons for withdrawal, and any restrictions or other conditions of use attached to the land proposed for withdrawal.

2. Upon the filing of an application to withdraw lands under subd. 1., the department shall investigate the application. During the course of its investigation the department shall make an examination of the character of the land, the volume of timber, improvements, and any other special values. In the case of withdrawal for the purpose of sale to any purchaser other than the state or a local unit of government, the department shall establish a minimum value on the lands to be withdrawn. In making its investigation the department shall give full weight and consideration to the purposes and principles set forth in sub. (1); and it shall also weigh and consider the benefits to the people of the state as a whole, as well as to the county, from the proposed use against the benefits accruing to the people of the state as a whole and to the county under the continued entry of the lands to be withdrawn. The department may conduct a public hearing on the application, if it considers it advisable, at a time and place that it determines, except that if the county requests a public hearing in writing, the department shall hold a public hearing.

3. If the department finds that the benefits after withdrawal of the lands described in the application under subd. 2. outweigh the benefits under continued entry of the lands and that the lands will be put to a better and higher use, it

shall make an order withdrawing the lands from entry; otherwise it shall deny the application.

4. If the application is denied, the county board may, by resolution adopted by not less than two-thirds of its membership, appeal to a review committee. The department shall submit the findings of its investigation and of any hearing on a proposed withdrawal to the committee, which shall be composed of the following members:

a. One member appointed by the county board submitting the application for withdrawal.

b. One member who is appointed by the governor, who is from another county that has land enrolled under the county forest law, and who shall be chairperson of the review committee.

c. One member appointed by the department.

d. One member appointed by the University of Wisconsin from the College of Agricultural and Life Sciences.

e. One member to be selected by unanimous vote of the appointed members or, if the appointed members fail to achieve unanimity, by the governor.

5. The review committee appointed under subd. 4 shall, by majority vote within 60 days after receiving the findings of the department, do one of the following:

a. Approve the application for withdrawal if it finds the proposed use to be of a greater benefit considering all losses and benefits to the people of the state as a whole, as well as to the people of the county.

b. Provisionally deny the application for withdrawal giving specific reasons why it finds the proposal deficient and making any suggestions for revising the application to reduce the conflict of the proposed use with the public interest.

6. If the committee approves a withdrawal under subd. 5, it shall notify the county board of its approval stating, as necessary, specific procedures to be followed by the county relating to the withdrawal. The county board may then by a resolution approved by not less than two-thirds of its membership, withdraw the lands from the county forest law and shall send copies of this resolution to the department and to the county register of deeds who shall record the resolution.

7. If the committee provisionally denies the proposed withdrawal under subd. 5, it may consider an amended application for withdrawal upon presentation of the application and supporting information, or it may require additional investigation of the amended application by the department before reconsidering the application. Any additional investigation shall include additional public hearings if requested by the county, the department, or the committee.

(b) If the application is approved the county shall reimburse the state the amounts previously paid to the county pursuant to sub. (8)(b) which reimbursement shall be credited to the county forestry fund account; except that the department may waive all or part of such reimbursement if it finds that the lands are withdrawn for a higher public use or that the amount of such reimbursement is unreasonable when compared to the value of the land. If the department has waived any portion of such reimbursement and if at any subsequent time the land ceases to be used for the purpose designated in the application for withdrawal, the full amount of reimbursement due the forestry fund account on the lands withdrawn shall immediately become due and payable to the department and shall be credited to the forestry fund account, unless the department finds and determines that the lands will continue to be put to another higher public use in which case payments of such reimbursement may be deferred by the department so long as the lands are devoted to a higher public use. If payment is not made prior to the time of the next forestry aid payment to the county, forestry aid payments in an amount to be determined by the department shall be withheld until the amount due the forestry fund account is reimbursed.

(12) Enforcement.

If at any time it appears to the department that the lands are not being managed in accordance with this section it shall so advise the county forestry committee and the county clerk. If the condition persists the department may proceed against the persons responsible for such noncompliance under s. 30.03(4).

(13) Review.

All orders of the department made under this section may be reviewed under ss. 227.52 to 227.58.

History: 1971 c. 215; 1975 c. 39 s. 734; 1975 c. 342; 1977 c. 29; 1979 c. 34 ss. 723 to 725, 2102(39)(a); 1983 a. 27; 1983 a. 192 s. 304; 1983 a. 424 ss. 2 to 5; 1985 a. 29 ss. 655ce to 655cg, 3202 (39); 1985 a. 182 s. 57; 1987 a. 27; 1989 a. 31, 79; 1993 a. 16, 184, 301; 1995 a. 27, 201; 1997 a. 237, 248; 1999 a. 9; 2001 a. 16, 103.

Cross Reference: See also ch. NR 48 and ss. NR 1.24, 47.60, and 302.03, Wis. Adm. Code.

A county forest withdrawal appeal review committee under sub. (11) (a) is not a state agency whose decisions are reviewable under ch. 227. Allen v. Juneau County, 98 Wis. 2d 103, 295 N.W.2d 218 (Ct. App. 1980).

County boards cannot sell or exchange county forest lands without first withdrawing them from the county forest program under sub. (11). 66 Atty. Gen. 109.

905.2 COUNTY ORDINANCES

905.2.1 County Forestry Ordinance*

COUNTY FORESTRY ORDINANCE FOR SAWYER COUNTY, WISCONSIN

This ordinance prescribes the rules and regulations for the administration of County powers and duties as provided in Chapters 26, 28, and 59 of the Wisconsin Statutes, under which the Sawyer County Board of Supervisors is granted specific powers relative to the establishment, protection, development and management of County Forests to provide sustained yield of forest products for commercial use and the associated benefits of soil and water conservation, scenic and recreational values, and fish and game resources.

The Sawyer County Board of Supervisors does ordain as follows:

Section I

The Sawyer County Forestry Ordinance of November 15, 1934, and any amendments thereto is hereby repealed and re-created to read as follows:

Section II

Designation of County Forests

Determination is hereby made that for the purpose of proper and complete identification, all county-owned forest lands now held and entered under the Wisconsin County Forest Law by Sawyer County, or hereafter acquired for forestry purposes and located within the areas described, and as indicated on the official map appended to the Comprehensive Land Use (10 Year) Plan and on file in the office of the Forestry Administrator, are established and designated as the Sawyer County Forest.

Section III

Committee Appointment

The Sawyer County Board of Supervisors hereby assigns the administration of the County Forestry Department to the Forestry Committee of this Board, composed of five (5) members, and hereinafter referred to as the Committee.

Section IV

Powers and Duties of the Committee

- The Committee is hereby empowered to acquire lands within county forest areas by purchase, tax deed, gift or bequest, or by exchange of county-owned lands outside such areas for the purpose of blocking the forest for better administration.
- Make application for entry under the County Forest Law as lands are acquired within the County Forest.
- The Committee shall direct and supervise the County Forestry office and designate a County Forest Administrator as its agent, and the Committee is empowered to employ such other personnel as may be necessary to direct, perform, and enforce the administrative and management functions of this ordinance.
- Establish and maintain in appropriate centers a forest headquarters for office space and/or housing for machinery, tools, equipment, and supplies needed in conducting forest operations.
- Purchase, acquire, sell, trade or dispose of instruments, tools, equipment and supplies required for the operation of the forest. Items costing more than twenty-five thousand dollars (\$25,000.00) shall be purchased by competitive bid according to Chapter 59.52, Wis. Stats. Items costing more than two thousand dollars (\$2,000.00) must have the approval of the County Board of Supervisors or as per County Board policy.

- In accordance with Chapter 28.11(5)(a), Wis. Stats., develop a Comprehensive Land Use (10 Year) Plan and keep the Plan up-to-date as required by statutes.
- Prepare budgets for county forest administration, capital and direct expenditures of forestry funds advanced by the Department of Natural Resources (DNR) and for other revenues accruing to the County under this ordinance for submission to the County Board.
- The Committee shall do all things necessary for the protection of the forest whether from fire, insects, disease, trespass, or from damage by animals and from other causes.
- Locate survey lines and appropriately monument corners of County Forest lands.
- Construct, improve and maintain a system of forest roads, trails and firebreaks, and purchase or secure easements for access-ways required to cross privately owned lands.
- Gate or block roads or trails with gates, rails, posts, earthen embankments or other material when in the judgment of the Committee, public travel on such roads or trails will result in damage or destruction of the road or trail.
- Engage in forest improvement programs, including reforestation, release cuttings, thinnings, pruning and weeding by any method, including spraying or dusting of chemicals by airplane and other methods, and to dispose of all salvaged materials.
- Sell timber stumpage in accordance with the County Forest Management Plan.
- Establish, construct and maintain wherever desirable within the forest, picnic grounds, waysides, campsites, public access roads, boat landings, scenic areas, and nature trails and to designate, mark and preserve places of natural or historic interest and significance.
- Cooperate with the Department of Natural Resources (DNR) on matters relating to forest, game, and fish management within the County Forest.
- The Committee is authorized to enter into agreements with Forest Experiment Stations, the University of Wisconsin System or other universities with the endorsement of or directly with the Department of Natural Resources (DNR) for the use of tracts of County Forest lands, labor, materials and equipment for conducting forest research.
- Do special forest or recreation development work on other public lands not included in the County Forests, including such lands as school forests, community forests, county parks, watersheds, reduction of hazards, public highways and similar projects.
- The Committee may grant permits to prospect for ore, minerals, gas and oil, and for solid waste disposal sites upon county lands under the jurisdiction of this Committee, subject to approval by the County Board of Supervisors and in accordance with Chapter 28.11(3)(i), Wis. Stats.
- Prepare and present an annual accomplishment report of its activities and an annual work plan and budget for the following year to the County Board of Supervisors.
- Establish regulations pertaining to the posting of signs on county forest lands.
- The Committee may issue easements for private access roads across county land with adequate safeguards to protect the county interest. All such easements shall be recorded in the Register of Deed's office with the cost to be borne by the permittee.
- The Committee may issue easements for utility lines, town roads and permits for town solid waste disposal sites with safeguards to protect the county interest.

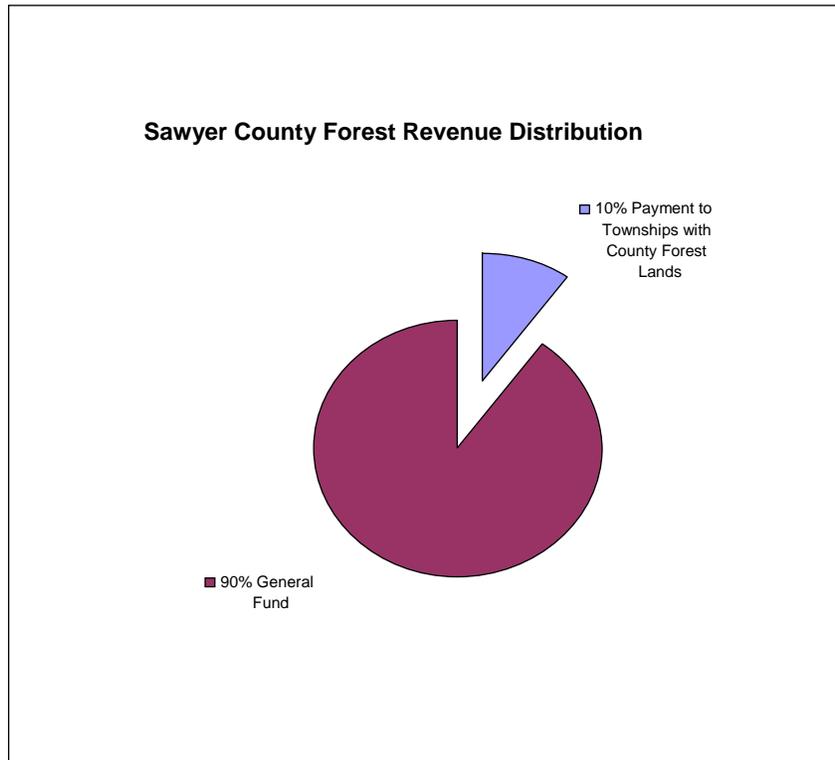
Section V

County Forest Law Administration

After the applications for entry of lands under the County Forest Law have been prepared and approved by the Committee, the County Clerk shall, after verifying county ownership of the listed lands, execute the applications and forward them to the Department of Natural Resources (DNR) by the date prescribed by the Department for each year's applications. Withdrawal of lands entered under the County Forest Law shall be applied for as prescribed by Chapter 28.11(11), Wis. Stats. No deed to any description of County Forest Land shall be issued prior to recording of an order of withdrawal with the Register of Deeds.

Section VI
Forest Financing

- All aids from the State of Wisconsin, Department of Natural Resources (DNR), to Sawyer County under Chapter 28.11(8)(b), Wis. Stats., for the purchase, development, preservation and maintenance of the County Forest, shall be deposited in the State Forest Aid Fund. Income from the sale of lands or equipment purchased with State Aid Funds shall be restored to this fund. All unexpended funds shall be non-lapsing.
Distribution of timber sale and other income from County Forest lands shall be as follows:
 - Timber Sales:
 - 10% of gross sales to townships according to 28.11(9)(b)
 - 35% Resource Development Fund
 - 55% County General Fund
 - Other Income (camp permits, boughs, Christmas tree sales, gravel, etc.):
 - 100% Resource Development Fund
 - Recreational Camp Disposal Fund - separate non-lapsing fund set up to contain yearly portion of fund to be used for disposal of recreational camps
- The Administrator shall prepare a budget annually for operations under this Ordinance and as monies are appropriated by the County Board, they may be expended by the Committee for the purposes cover by this Ordinance.



905.2.2 County Owned Land Ordinance

**ORDINANCE #1-2009
COUNTY OWNED LAND ORDINANCE**

Regulating fires, camping, littering, trail use, destruction of public property, and other activities on County Land.

An Ordinance to establish regulation in the areas owned and maintained by Sawyer County, Wisconsin, pursuant to authorities and purposes of Chapter 28.11(3)(b) and 59.07(64).

WHEREAS, the County of Sawyer has established many recreation areas and protects and manages other lands throughout the County for the use of the general public; and

WHEREAS, these areas were developed for different purposes and therefore the facilities constructed and needs for management differ from area to area:

NOW, THEREFORE, the Sawyer County Board of Supervisors hereby enacts the following Ordinance to be known as the County Owned Land Ordinance:

SECTION 1 The areas within the Sawyer County shall be classified as follows:

a) Class 1 Recreation Area includes the following:

Hatchery Creek County Park (within 100 yards of pavilion or picnic area)
Nelson Lake Wayside
Namekagon River Park

b) Class 2 Recreation Area includes the following:

American Birkebeiner Skiing/Hiking Trails
Nelson Lake Boat Landing
Spring Lake Boat Landing
Windfall Lake Boat Landing
Price Dam Boat Landing

c) Class 3 Recreation Area includes the following:

All other County owned and County Forest Lands not designated as Class 1 or Class 2

SECTION 2 All areas hereinafter created by the Sawyer County Board of Supervisors shall be designated either as Class 1 or 2 Recreation Areas or a Class 3 area; and upon such classification, the conditions and restrictions imposed by this Ordinance shall apply to each area.

SECTION 3 No person or persons shall within a Class 1 Recreation Area:

- a. Establish or use a campsite for overnight camping except by special permit.
- b. Dispose of trash or rubbish in any manner other than depositing it in containers that may be provided by the County.
- c. Discharge, or keep an uncased or loaded firearm within the boundaries of such area. This shall be within 100 yards of pavilion or picnic area.
- d. Ignite an open fire (meaning wood, charcoal, or solid fuel) within such area unless such fire is in a fireplace, grill, or other suitable container provided or

- constructed to contain a fire, that may be provided by County.
- e. Use or be within a recreation area for any purpose, except boat launching or fishing, between the hours of 11:30 pm and 6:00 am of each day.
- f. Cause damage to the natural features, resources, trails, or facilities owned and operated by the County.
- g. Leave an open fire (meaning wood, charcoal, or solid fuel) unless it has no smoke and entire coal or ash bed is cool enough to touch with a hand.

SECTION 4 No person or persons shall within a Class 2 Recreation Area:

- a. Camp at any site other than an established site for camping.
- b. Dispose of trash or rubbish in any manner other than depositing it in containers that may be provided by the County.
- c. Ignite an open fire (meaning wood, charcoal, or solid fuel) within such area unless such fire is within a fire ring that may be provided by the County.
- d. Refuse to vacate an unapproved campsite when directed to leave by the proper authorities.
- e. Cause damage to natural features, resources, trails, or facilities owned and operated by the County.
- f. Use dog sleds, snowmobiles, horses or operate any motorized vehicles on the American Birkebeiner Ski Trails at any time of year without special permission of the Forest Administrator or designee.

SECTION 5 No person or persons shall in a Class 3 Recreation Area:

- a. Establish or use a campsite for overnight camping except by written permission of the Forestry Committee or Forest Administrator.
- b. Litter, or deposit trash or rubbish in any manner other than depositing it in containers that may be provided by the County.
- c. Refuse to vacate an unapproved campsite when directed to leave by the proper authorities.
- d. Cause damage to natural features, resources, trails, or facilities owned and operated by the County.
- e. Cut or harvest any vegetation, that is not to be eaten, without permission of the Forest Administrator or designee. This shall not be construed to permit harvest of vegetation otherwise controlled.
- f. Build, occupy, or use any elevated platform or steps unless the structure and/or steps do not damage the tree and are completely removed at the close of the hunting season.
- g. Build or use any devise on the ground for hunting unless it is built entirely of natural, dead, non-manufactured, on-site forest vegetation except manufactured blinds may be used if materials are removed at the end of the hunting season.
- h. Bait hunted animals using more than the current state legal limit of bait at any one time as state regulations permit.
- i. Unless the ground is 100% snow covered, leave an open fire (meaning wood, charcoal, or solid fuel) unless it has no smoke and entire coal or ash bed is cool enough to touch with a hand.
- j. Remove fill, soil, ore, gravel, or any mineral without written permission of the Forest Administrator or designee.
- k. Disturb, dig, or remove any artifact or historical article without written permission of the Forest Administrator or designee.
- l. Damage, deface, destruct, move, remove, or possess any signs placed or contracted to be placed by the County Forestry Department.

- m. Operate a motor vehicle on County trails designated closed with a gate or earthen embankment, or in an area designated closed by the Forestry Committee, without special permission of the Forest Administrator or designee.
- n. Operate motor vehicles over nine hundred (900) pounds in weight on trails that are gated or signed with the weight limit without special permission of the Forest Administrator or designee.
- o. Operate motor vehicles over nine hundred (900) pounds, other than snowmobiles, on state funded snowmobile trails between December 15th and April 15th each year, without special permission of the Forest Administrator or designee.
- p. Operate an ATV (all terrain vehicle) on trails, roads, or in the forest when the Department of Natural Resources (DNR) fire danger is posted as extreme.
- q. Operate a motor vehicle use on county trails, roads or in the forest that is not a licensed or registered vehicle.
- r. Operate a motor vehicle, snowmobile, ATV (all terrain vehicle), moped, motor-bike, LUV (light utility vehicle), or motorcycle off of a roadway approved for their use. A roadway is defined as an open lane that is recognized by the county by being numbered and mapped in the county forest road inventory. Roadways not recognized by the county are not open to motor vehicle travel. Cross-country travel off of a roadway is prohibited.
- s. Travel on County Forest roads, trails, or in the forest with motorized or non-motorized wheeled vehicles during the spring closure period from April 1 to May 15 of each year (exceptions: State and County Forestry vehicles, snowmobiles and snow grooming equipment, logging equipment on a site specific basis if pre-approved by the Forestry Committee, emergency vehicles, maintenance vehicles with prior approval of the Forest Administrator and other needs as brought to the attention of the Forestry Department).
- t. Operate an ATV on county roads designated as Limited Open Access.
Exception: ATVs may be used on Limited Open Access roads for big game retrieval provided that no firearms are in possession, one (1) ATV with a maximum of two (2) people, and animal must be tagged prior to entry.

SECTION 6 Signs shall be posted in each of the above listed Class 1 and Class 2 Recreation Areas, which summarize the regulations set forth in the Ordinance and shall recite that the regulations are imposed pursuant to Sawyer County Land Ordinance.

SECTION 7 Penalties for violation of Section 3, 4, and 5. Any person who violates, disobeys, neglects, or omits or refuses to comply with any of the provisions of this Ordinance shall forfeit not less than fifty (50) nor more than two hundred (200) dollars together with the cost of prosecution, and in default of payment thereof, by imprisonment in the County Jail of Sawyer County, Wisconsin, for a term of not more than thirty (30) days or until such Judgment is paid. Each day a violation exists or continues shall constitute a separate offense.

SECTION 8 Should any sub-section, clause, or provision of this Ordinance be declared by the Court as invalid, the same shall not affect the validity of the section as a whole or any part thereof, other than the part so declared to be invalid.

SECTION 9 This Ordinance shall take effect and be in force after its passage and publication as required by law.

ADOPTED THIS 21st DAY OF May 2009,

SAWYER COUNTY BOARD OF SUPERVISORS

900-47

**SAWYER COUNTY
COUNTY OWNED LAND ORDINANCE**

Schedule of Deposits

NOTE: Court costs are not reflected in deposit. Maximum deposit of \$200.00 may be charged for repeat offenders (not including court costs).

Violation of Section 3 (concerning day use areas)	Deposit
Camping (deposit for each day of violation)	\$50-\$200
Trash or rubbish disposal:	
1. Recreational trash or yard materials	\$50-\$200
2. Household, commercial types, or other rubbish	\$50-\$200
Firearms	\$50-\$200
Open fire use	\$50-\$200
Area hours	\$50-\$200
Resource or facility damage - \$50 minimum up to but not to exceed \$200 based upon value of damage or cost to repair damage	\$50-\$200
Leave an open fire	
1. Where fire is contained to typical campfire	\$50-\$200
2. Where fire escapes beyond typical campfire	\$50-\$200
Violation of Section 4 (concerning Am. Birkie Trail)	Deposit
Camping (deposit for each day of violation)	\$50-\$200
Trash or rubbish disposal:	
1. Recreational trash or yard materials	\$50-\$200
2. Household, commercial types, or other rubbish	\$50-\$200
Open fire use	\$50-\$200
Refusal to leave when directed	\$50-\$200
Resource or facility damage - \$50 minimum up to but not to exceed \$200.00 based upon value of damage or cost to repair damage	\$50-\$200
Unauthorized uses of American Birkebeiner Ski Trails	\$50-\$200

Violations of Section 5 (County forest lands not designated as day use or American Birkebeiner Trail)	Deposit
Camping	
1. Without permission (deposit for each night and day of camping violation)	\$50-\$200
Litter, trash, or rubbish disposal:	
1. Recreational trash or yard materials	\$50-\$200
2. Household, commercial type, or other rubbish	\$50-\$200
Refusal to leave (camping) when directed	\$50-\$200
Resource or facility damage - \$50 minimum up to but not to exceed \$200.00 based upon value of damage or cost to repair damage	\$50-\$200

Other Violations	Deposit
Cut or harvest vegetation without permit - \$50.00 minimum up to but not to exceed \$200.00 based on resale value of the vegetation	\$50-\$200
Leave an open fire: 1. Where fire contained to typical campfire 2. Where fire escapes beyond typical campfire	\$50-\$200 \$50-\$200
Tree stands: 1. Use of permanent type stands (proof of ownership not necessary)	\$50-\$200
Ground blind for hunting built with other than dead on-site vegetation or manufactured blinds that are not removed at the end of the hunting season	\$50-\$200
Baiting using more than the State legal limit	\$50-\$200
Removal of soil, gravel, mineral, etc.	\$50-\$200
Artifact or historical article disturbance or removal	\$50-\$200
Damage, removal, etc. of County Forest signs	\$50-\$200
Motor vehicle operation: 1. If no gate, earthen embankment or sign posted (sign need not be present at time of violation) 2. All other or if on snowmobile trail when snow covered	\$50-\$200 \$50-\$200
Motor vehicles over 900 pounds on gated snowmobile trails	\$50-\$200
Use other than snowmobiles (Dec 15 - April 15): Trucks, pickups, cars, vans, etc. over 900 pounds	\$50-\$200
Operation ATV's: 1. When fire danger is posted very high or higher category	\$50-\$200
Operate a vehicle off of a roadway	\$50-\$200
Operation of motorized vehicle on a trail designated as non-motorized	\$50-\$200
Travel on County Forest during period of closure - April 1 to May 15	\$50-\$200
Operate ATV on Limited Open Access roads except for big game retrieval - no firearms, 1 ATV, 2 people maximum, animal tagged prior to entry	\$50-\$200

905.2.3 Shoreland Zoning Ordinance

4.4 SHORELAND REGULATIONS

4.41 FINDING OF FACT

Uncontrolled use of the shorelands and pollution of the navigable waters of Sawyer County would adversely affect the public health, safety, convenience, and general welfare and impair the tax base. The legislature of Wisconsin has delegated responsibility to the counties to further the maintenance of safe and healthful conditions; prevent and control water pollution; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses; and to preserve shore cover and natural beauty. This responsibility is hereby recognized by Sawyer County, Wisconsin.

4.42 PURPOSE

For the purpose of promoting the public health, safety, convenience and welfare, this ordinance has been established to:

1) Further the maintenance of safe and healthful conditions and prevent and control water pollution through:

- (a) Limiting structures to those areas where soil and geological conditions will provide a safe foundation.
- (b) Establishing minimum lot sizes to provide adequate area for private sewage disposal facilities.
- (c) Controlling filling and grading to prevent serious soil erosion problems.

2) Protect spawning grounds, fish and aquatic life through:

- (a) Preserving wetlands and other fish and aquatic habitat.
- (b) Regulating pollution sources.
- (c) Controlling shoreline alterations, dredging and lagooning.

3) Control building sites, placement of structures and land uses through:

- (a) Separating conflicting land use
- (b) Prohibiting certain uses detrimental to the shoreland area.
- (c) Setting minimum lot sizes and widths.
- (d) Regulating side yards and building setbacks from waterways.

4) Preserve shore cover and natural beauty through:

- (a) Restricting the removal of natural shoreland cover.
- (b) Preventing shoreline encroachment by structures.
- (c) Controlling shoreland excavation and other earth moving activities.
- (d) Regulating the use and placement of boathouses and other structures.

4.43 AREAS TO BE REGULATED

Areas regulated by this ordinance shall include all the lands, referred to herein as shorelands, in the unincorporated area of Sawyer County which are:

1) Within one thousand (1,000) feet of the ordinary highwater mark of navigable lakes, ponds, and flowages. Lakes, ponds, and flowages in Sawyer County shall be presumed to be navigable if they are listed in the Wisconsin Department of Natural Resources publication "Surface Resources of Sawyer County" or are shown on United States Geological Survey quadrangle maps or other zoning base maps.

2) Within three hundred (300) feet of the ordinary highwater mark of navigable rivers or streams, or to the landward side of the floodplain, whichever distance is greater. Rivers and streams in Sawyer County shall be presumed to be navigable if they are designated as continuous waterways or intermittent waterways on United States Geological Survey quadrangle maps. Flood Insurance Rate Maps, Flood Hazard Boundary Maps, flood boundary-floodway maps, county soil survey maps or other existing county floodplain zoning maps shall be used to delineate floodplain areas.

3) Determinations of navigability and ordinary highwater mark location shall initially be made by the Zoning Administrator. When questions arise, the Zoning Administrator shall contact the appropriate district office of the DNR for a final determination of navigability or ordinary highwater mark.

4) Under Section 281.31 (2) (d), Wisconsin Statutes, notwithstanding any other provision of law or administrative rule promulgated there under, this shoreland zoning ordinance does not apply to lands adjacent to farm drainage ditches if:

- (a) Such lands are not adjacent to a natural navigable stream or river.
- (b) Those parts of such drainage ditches adjacent to such lands were not navigable streams before ditching; and
- (c) Such lands are maintained in nonstructural agricultural use.

4.44 COMPLIANCE

The use of any land or water, the size, shape and placement of lots, the use, type and location of structures on lots, the installation and maintenance of water supply and waste disposal facilities, the filling, grading, lagooning, dredging of any lands, the cutting of shoreland vegetation, the subdivision of lots, shall be in full compliance with the terms of this ordinance and other applicable local, state, or federal regulations; except nonconforming uses under Section 10. Buildings, signs, and other structures shall require a permit unless otherwise expressly excluded by a provision of this ordinance. Property owners, builders, and contractors are responsible for compliance with the terms of this ordinance.

4.45 ABROGATION AND GREATER RESTRICTIONS

The provisions of this ordinance supersede all the provisions of any County Zoning Ordinance adopted under Section 59.69, Wisconsin Statutes, which relate to shorelands. However, where an ordinance adopted under a statute other than Section 59.69, Wisconsin Statutes, is more restrictive than this ordinance, that ordinance shall continue in full force and effect to the extent of the greater restrictions, but not otherwise.

1) The shoreland regulations and ordinance shall not require approval or be subject to disapproval by any town or Town Board.

2) If an existing town ordinance relating to shorelands is more restrictive than this ordinance or any amendments thereto, the town ordinance continues in all respects to the extent of the greater restrictions but not otherwise.

3) This ordinance is not intended to repeal, abrogate or impair any existing deed restrictions, covenants, or easements. However, where this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail.

4.46 INTERPRETATION

In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be liberally construed in favor of the county and shall not be deemed a limitation or repeal of any other powers granted by Wisconsin Statutes. Where a provision of this ordinance is required by a standard in Chapter NR 115, Wisconsin Administrative Code, and where the ordinance provision is unclear, the provision shall be interpreted in light of the Chapter NR 115 standards in effect on the date of the adoption of this ordinance or in effect on the date of the most recent text amendment to this ordinance.

4.47 LAND DIVISION REVIEW

The County shall review all land divisions pursuant to Section 236.45, Wisconsin Statutes and the Sawyer County Subdivision Control Ordinance. In such review, the following factors shall be considered:

- 1) Hazards to the health, safety or welfare of future residents.
- 2) Property relationship to adjoining areas.
- 3) Public access to navigable waters, as required by law.
- 4) Adequate storm drainage facilities.
- 5) Conformity to state law and administrative code provisions.

4.48 SANITARY REGULATIONS

The County shall adopt sanitary regulations for the protection of health and the preservation and enhancement of water quality.

- 1) Where public water supply systems are not available, private well construction shall be required to conform to Chapter NR 112, Wisconsin Administrative Code and the Sawyer County Private Sewage System Ordinance.
- 2) Where a public sewage collection and treatment system is not available, design and construction of private sewage disposal systems shall conform to Chapter Comm 83, Wisconsin Administrative Code and the Sawyer County Private Sewage System Ordinance.

4.49 SETBACKS FROM NAVIGABLE WATER

INTRODUCTION: WDNR Administrative Rule NR 115 (3) (b). "Permitted building setbacks shall be established to conform to health, safety and welfare requirements, preserve natural beauty, reduce flood hazards and avoid water pollution."

1) For lots that abut on navigable waters, all buildings and structures, new dwellings on vacant lots and replacement dwellings; except piers, boat hoists, and open fences which may require a lesser setback, shall be set back a minimum of 75 feet from the ordinary high-water mark of navigable waters and wetlands adjacent to any navigable water. All setback distances are measured from the overhang or appendage such as a deck, horizontally to the closest point of the ordinary high-water mark. For lots that abut on non-navigable wetlands, all buildings and structures shall be set back a minimum of 40 feet from the wetland boundary. Structures built prior to June 15, 1995 at a setback distance closer than 75' to a wetland area adjacent to navigable water shall be considered to be conforming to that setback distance. Structures built prior to April 15, 1997 at a setback distance closer than 40' to a non-navigable wetland shall be considered to be conforming to that setback distance. Navigable wetlands shall be determined by a representative of the Zoning Department. Certification of wetland delineation, if required, is the responsibility of the property owner.

2) Open structures within the shoreland setback area ["GARD GAZEBO" PERMITS]. As required by s.59.692(1v), Wis Stats., the construction or placement of certain structures within the shoreland setback area shall be permitted if the following conditions are met:

The structure that is the subject of the request for a "GARD GAZEBO" PERMIT has no sides, or has open or screened sides. Knee walls of 32 inches or less will be considered open construction.

That part of a structure that is nearest to the water shall be located at least 35 feet landward from the ordinary high-water mark.

The structure shall not be constructed on slopes in excess of 20%.

The total combined floor area of all of the structures within the shoreland setback area of the property will not exceed 200 square feet. Walkways, stairways, and boathouses without decks shall be excluded in calculating this square footage.

The structure shall be visually inconspicuous (earthtones) and shall blend with native or restored vegetation at the site during the growing season.

The eave overhang shall not exceed one foot.

The side yard setback shall be a minimum of 10 feet.

The structure height shall not exceed 12 feet above the existing grade within the structure footprint.

Decks/flooring areas shall not exceed two (2) feet above existing grade.

Roofs of existing structures (i.e., boathouses, nonconforming accessory structures) shall not be converted to decks/seating areas. Water, gas and sewer utilities shall not be connected to the structure.

Standard erosion and stormwater runoff controls must be implemented.

MITIGATION shall be required and shall meet the requirements of Section 4.419 MITIGATION. Failure to comply with mitigation provisions may cause the Zoning Office to issue an order for removal or relocation of the structure allowed by the "GARD GAZEBO" PERMIT.

3) New boathouses shall not be allowed within 75 feet of the ordinary high-water mark of navigable waters.

4) Fences within 75 feet of the ordinary high-water mark shall meet the following criteria:

Open fences may be allowed no closer than 40 feet to the ordinary high-water mark, shall not exceed 6 feet in height and shall not obstruct the adjoining property owner's view of the water.

A permit is not required to construct a fence.

5) Retaining walls shall not be allowed within 75' of the ordinary high-water mark of navigable waters, within 75 feet of navigable wetlands or within 40 feet of non-navigable wetlands.

A need for retaining walls shall not be created by excavation activities.

Existing retaining walls, at their point of replacement/major repair, shall be:

- (1) Removed, or
- (2) Reduced in height, or
- (3) Rebuilt as deemed necessary by the Zoning Department and the Sawyer County Land and Water Conservation Department.

- 6) One pathway, elevated walkway or stairway will be allowed, plus one additional powered lift, if:
- It is located and constructed so as to avoid erosion;
 - Pathways, walkways and stairways shall not exceed 4 feet in width;
 - Powered lifts shall not exceed 6 feet in width;
 - The cumulative square footage of all landings located within 75' of the ordinary high-water mark of navigable waters shall not exceed 40 square feet. Attached benches, seats, tables etc. are prohibited.
 - The length and width dimensions of landings located at each end of a powered lift shall not exceed the width dimension of the lift. For example, landings at each end of a 6 feet wide powered lift shall not exceed 6 feet by 6 feet.
 - Canopies, roofs or enclosures are prohibited.
- 7) Public reserve/access strip (Grindstone Lake and Lac Courte Oreilles). The setback from the lakeside lot line of parcels adjacent to the public reserve/access strip shall be the greater of 75' from the ordinary high-water mark or 10' from the lot line.
- 8) Placement of commercial signs.
- Signs shall not be located within the SHORELINE VEGETATION PROTECTION AREA.
 - A Conditional Use Permit is required.
 - Only one sign is allowed.
 - Such signs shall:
 - Not exceed 24 square feet in area.
 - Not exceed 12 feet in height.
 - Be located on the same premises as the business.
 - If lighted, be lighted only with down focused lighting.
 - If lighted, the lights shall be turned off at close of business.
 - Mitigation may be required. See Section 4.419 MITIGATION for details.
- 4.410 SHORELINE VEGETATION PROTECTION AREA**
INTRODUCTION: WDNR Administrative Rule NR 115 (3)(c). "The cutting of trees and shrubbery shall be regulated to protect natural beauty, control erosion and reduce the flow of effluents, sediments and nutrients from the shoreland area."
INTENT: There shall be a shoreline vegetation protection area on each lot extending 35 feet landward from the ordinary high-water mark. Within this area the removal of trees, shrubs and ground cover, mowing and filling, grading and other land disturbing activities are prohibited with the following exceptions:
- Such activities are in conjunction with a project approved by the Sawyer County Land and Water Conservation Department or as listed in Section 4.420 RESOURCE MANAGEMENT AND AGRICULTURAL EXEMPTIONS.
 - Establishment of use corridor(s) for each lot by mowing, pruning and selective removal of trees, stumps and shrubbery. The use corridor(s) shall be more or less perpendicular to the shore, shall not exceed 30 feet in total width in any 100 feet of shoreline and shall be set back at least 10 feet from the side lot line. For lots having less than 100 feet of water frontage, the use corridor(s) width shall be reduced proportionally (e.g., a lot with 70 feet of water frontage would be restricted to a 21 feet wide use corridor(s) [$70' \times 0.30 = 21'$]). A use corridor(s) shall not be established where the absence of vegetation provides a similar naturally occurring opening.
 - Use corridors for hotels, motels, resorts and campgrounds. Use corridors, at the discretion of the property owner, may be created either as a single corridor or as multiple corridors, but in no instance shall the total width of the corridors exceed 30% of the frontage of the lot.
 - Shoreline protection activities authorized by a State permit or by the Sawyer County Land and Water Conservation Department are allowed.
 - Removal of dead and diseased trees is allowed. Re-vegetation of the removal area is required.
 - Removal of noxious vegetation (i.e., poison ivy, poison oak, ragweed) which poses a threat to health or safety is allowed. Re-vegetation of the removal area is required.
 - Roadway approaches to State or Federal permitted stream crossings are allowed.
 - Public and private watercraft launching sites are allowed provided they comply with the following standards:
 Construction on slopes steeper than 20% over a 50 foot horizontal distance is prohibited;
 An access site on residential property shall not be allowed if an alternative site on the waterway is available to the general public;
 Access sites shall be located within the use corridor; and
 A State Chapter 30 permit shall be obtained for all construction below the ordinary high-water mark.
- 9) Land disturbing activities in accordance with Section 4.421 STRUCTURES WITH NONCONFORMING SHORELINE SETBACKS are permitted.
- 10) Existing privately owned boat launch sites may be maintained with the use of fill material provided that:
- None of the fill material is allowed to migrate below the ordinary high-water mark.
 - The fill material is immediately seeded/sodded after placement.
 - The site shall not be used for launching activities until completely vegetated.
- 4.411 LAND DISTURBING ACTIVITIES WITHIN THE SHORELANDS AREA. INTRODUCTION:** Land disturbing activities may require notification, or County, State or Federal permits. Improper land disturbing activities can result in increased shoreline erosion and waterway sedimentation.
FILLING, GRADING, LAGOONING, DREDGING, DITCHING, EXCAVATING
- General standards. Filling, grading, lagooning, dredging, ditching, or excavating which does not require a permit under Section 4.411(2) may be permitted in the shoreland area provided that:
 It is done in a manner designed to minimize erosion, sedimentation and impairment of fish and wildlife habitat.
 Filling, grading, lagooning, dredging, ditching, or excavating in a wetland/shoreland district meets the requirements of Section 17.9 and of this ordinance.
 All applicable federal, state, and local authority is obtained in addition to a permit under this ordinance.
 Any fill placed in the shoreland area is protected against erosion by the use of rip-rap, vegetative cover, or a bulkhead.

2) Permit required, except as provided in Section 4.411(3). A Land use permit is required:

For any filling or grading of any area within 300 feet of the ordinary high-water mark of navigable water that exceeds 10,000 square feet in area. Filling and grading shall include all exposed soil regardless of its source. Examples of exposed soil would include, but would not be limited to, soils exposed by any of the following activities: driveways, septic system installation, excavation for building sites and the depositing of spoils, the depositing/hauling in of soils/fill/gravel, placement of topsoil etc.

For any construction or dredging commenced on any artificial waterway, canal, ditch, lagoon, pond, lake, or similar waterway which is within 300 feet landward of the ordinary high-water mark of a navigable body of water or where the purpose is the ultimate connection with a navigable body of water.

3) Soil Conservation Practices. Soil conservation practices such as terraces, runoff diversions and grassed waterways which are used for erosion control shall not require a permit under Section 4.411(2) when designed and constructed to Natural Resources Conservation Service technical standards.

4) Permit Conditions. In granting a land use permit under 4.411(2), the Zoning Administrator shall attach the following conditions, where appropriate, in addition to those provisions specified in Section 8.1 and 8.12.

The smallest amount of bare ground shall be exposed for as short a time as feasible.

Temporary ground cover, such as mulch or jute netting, shall be used and permanent vegetative cover shall be established.

Diversion berms or bales, silting basins, terraces, filter fabric fencing, and other methods shall be used to prevent erosion.

Lagoons shall be constructed to avoid fish trap conditions.

Fill shall be stabilized according to accepted engineering standards.

Filling shall comply with any local floodplain zoning ordinance and shall not restrict a floodway or destroy the flood storage capacity of a floodplain.

Channels or artificial watercourses shall be constructed with side slopes of two (2) units horizontal distances to one (1) unit vertical or flatter which shall be promptly vegetated, unless bulkheads or rip-rap are provided.

4.412 LAKE ACCESS

1) All private lake accesses; lake access easements; or outlots; deeded or contractual accesses for the purpose of lake access shall meet the following requirements. Lake access parcels that were in the same ownership as of June 15, 1995 and remain in the same ownership, even though substandard in size, do not have to comply with this section. Such lake access parcels shall be restricted to lake access for only a single family lot, a single building site, a single family unit, a single family condominium unit or any other single area of a condominium designated as a unit. Campsites/RV sites located on a backlot are prohibited from utilizing said access. Same ownership means that both a lake access parcel and its backlot must have the same owner. A lake access parcel and its backlot may be transferred to a different owner. However, should the lake access parcel and its backlot be separated (i.e., different owners) the provisions of this section shall apply.

2) The access to a navigable waterway for backlot or off shore development shall meet the minimum lot and parcel size requirements of the Lake Class Development Standards. The lot width shall be measured at right angles at all points along its side lot lines and the minimum required lot area shall exclude any wetlands. A cleared strip, ten (10) feet wide to contain the path that allows access to the lake through the lake access corridor (see Lake Class Development Standards), is the only clearing that is allowed.

3) The number of single family lots, building sites, mobile home park sites, single family units and single family condominium units or other areas of a condominium designated as units utilizing said access shall be limited to not more than three (3).

CAMPGROUND/RV sites located on a backlot are prohibited from utilizing said access.

4) A "Gard Gazebo" shall be the only building (structure) allowed on the lake access parcel. An area on the landward side of the SHORELINE VEGETATION PROTECTION AREA, not to exceed 500 square feet, may be cleared for the location of this structure.

5) No utilities shall be allowed on the lake access parcel (gas, electricity, water or phone).

6) The creation or use of land for a lake access shall be by conditional use only in the RR-1 and RR-2 zone districts in accordance with Section 8.0. The Zoning Committee shall consider the size, shape depth, present and potential use of the lake and the effect of the private access on public rights in navigable waters.

7) Once created, a lake access parcel can never be built upon, unless its use as a lake access parcel is removed by a conditional use permit.

8) MAJOR RECREATIONAL EQUIPMENT/VEHICLES (i.e., camping equipment) shall not be placed on the parcel.

4.413 Island Development

Islands and mainland accesses that were in the same ownership as of June 15, 1995, even though substandard in size, and remain in the same ownership after that date, do not have to comply with this section. Same ownership means that both an island and its mainland access must have the same owner. An island with its access may be transferred to a different owner. However, should the island and its access be separated (i.e., different owners) the provisions of this section shall apply.

Islands that are subdivided or developed shall meet the following requirements:

1) The owner or developer of island lots shall provide a private lake access parcel on the mainland for ingress and egress to the island and for the storage of vehicles and boat trailers. The size of the mainland lake access easement or outlot shall meet the minimum lot and parcel size requirements of the Lake Class Development Standards. The minimum required lot area shall exclude any wetlands. A contiguous buffer area of 25 feet wide along each side lot line running the full depth of the lot shall remain in its natural state. The cutting of vegetation or trees or the construction/placement of buildings within the buffer area is prohibited.

2) The number of single family lots, building sites, single family units, or single family condominium units utilizing said access shall be limited to two (2).

3) The construction or placement of any structures on the mainland access is prohibited.

4) The creation or use of mainland land for a lake access for island development shall be by conditional use only in the RR-1 and RR-2 zone districts in accordance with Section 8.0. The Zoning Committee shall consider the size, shape, depth, present and potential use of and the effect of the mainland lake access on public rights in navigable waters.

4.414 RESORTS and CONDOMINIUMS

1) New Resorts. The development and construction of new resorts shall comply with all requirements of this ordinance as they pertain to the issue of land use permits for residential dwelling construction. Each dwelling unit within such new resort must meet the

minimum lot size, width and depth requirements of the Lake Development Standards.

2) Existing Resorts.

Introduction: Recognizing the historical and economic significance of resorts in Sawyer County, certain special consideration is given to help assure their continued survival and viability. Except for the items contained below, all resorts must meet the criteria specified elsewhere in this ordinance.

a. A resort existing at the time this ordinance is put in effect, but does not meet the minimum LOT size for the number of existing principal buildings, is "grandfathered" for the number of those principal buildings. Existing principal buildings may be replaced with the issue of a Land Use Permit and:

1. Compliance with 4.414(2)(b) (1)-(4).

2. The resort owner agrees to provide mitigation to the shoreline in an area between the building and the shoreline for the width of the building (See Section 4.419 MITIGATION).

b. A resort in existence at the time this ordinance is put in effect shall have its landmass treated in its entirety and be exempt from lot size and frontage requirements of the Lake Class Development Standards. Calculations of landmass for purposes of this section relating to existing resorts shall not include that portion of a resort that has been converted to a condominium type of ownership in which the dwelling units (resort cabins) are privately owned and such unit owner is entitled to the exclusive ownership and possession of that unit. Existing resort regulations shall be based on density and landmass as follows:

The cumulative square footage of all impervious surfaces within 300 feet of the OHWM shall not exceed 15% of the total square footage of the resort land area that is located within 300 feet of the OHWM.

The cumulative square footage of all impervious surfaces more than 300 feet from the OHWM but within the Shoreland District shall not exceed 30% of the total square footage of the resort land area located more than 300 feet from the OHWM but within the Shoreland District.

A conditional use permit shall be required to exceed these impervious surface requirements. An application for a conditional use permit shall be submitted per Section 4.422 IMPERVIOUS SURFACE LIMITATIONS..

All standards for setbacks from septic systems, wells, roadways, side yards, and wetlands apply.

c. Construction of additional principal buildings within an existing resort shall meet the following density/setback criteria:

All of item 2(a)(1), above.

Be at least 75 feet from the OHWM.

Be at least 20 feet from any other building

Conditional Use Permit requirements for MULTI-DWELLING DEVELOPMENT shall apply.

d. An existing resort principal building, any part of which is less than 75 feet from the OHWM, may be expanded by up to 50% of its footprint so long as:

The total footprint, including the existing structure and proposed additions, shall not exceed:

1000 square feet for those structures, any part of which is located less than 40 feet from the ordinary high-water mark, or

1500 square feet for those structures located between 40' and 75' from the ordinary high-water mark

The maximum height shall not exceed 26 feet from the lowest grade of the existing building.

It does not cause a violation of item 2(a)(1), above.

The expansion of the footprint shall be landward and does not move the cottage closer to the OHWM.

No portion of the addition will be less than 20 feet from any other principal building.

Expansion of an existing principal building located closer than 20 feet to another principal building. Expansion shall not increase the setback nonconformity to an existing principal building.

The resort owner agrees to provide mitigation to the shoreline in an area between the cottage and the shoreline for the width of the cottage (see Section 4.419 MITIGATION).

Owners of condominium units shall provide a letter of approval signed by an officer of the condominium association stating:

That the proposed expansion has the approval of the condominium association, and

Who specifically (i.e., either the owner of the condominium unit or the condominium association) shall accept the responsibility for the completion of any required mitigation.

Expansion of an existing principal building with shoreline on two or more sides. Expansion shall not increase the shoreline nonconformity.

e. Any use corridor shall not exceed 30 feet in width and the cumulative width of all use corridors within the resort shall not exceed 30% of the total shoreline frontage except as provided in Section 4.410(3).

4.415 Changes in Use - Campgrounds/RV Parks/Mobile Home Parks

1) Any action that results in a change in use of either campgrounds or RV parks as defined in Section 2.0 Definitions (CAMPGROUND), shall not result in the creation of lots/sites/parcels that are substandard in size based on the most restrictive requirements of either the Lakes Classification or the property's zone district.

2) Any action that results in a change in use of a mobile home park as defined in Section 2.0 Definitions (MOBILE HOME PARK), shall not result in the creation of lots/sites/parcels that are substandard in size based on the most restrictive requirements of either the Lakes Classification or the property's zone district.

3) Examples of such changes in uses would be, but are not limited to, the conversion of a campground/RV park from sites that are leased, rented or open to the public for nonpermanent use, to sites that are offered to the public for purchase; the conversion of a mobile home park from sites that are leased, rented or open to the public for nonpermanent use, to sites that are offered to the public for purchase.

4.416 Lake Class Development Standards and Lists of Lakes by Classification

1) After adoption of this section, or an amendment thereto, no lot area shall be so reduced that the dimensional and yard requirements required by this ordinance cannot be met. Parcels of land existing and of record shall meet the minimum requirements of Section 4.25 and lots existing and of records, i.e., documented by recording of a metes and bounds description; or a Certified Survey Map; or a recorded platted subdivision, but of substandard size to the Lake Class Development Standards are hereby conforming to the parcel size requirements but may be nonconforming for dwelling construction. The construction of new dwellings or replacement dwellings; additions to existing structures and the construction of accessory buildings when a principal structure

exists on the premises may be permitted by permit provided all other requirements, regulations and setbacks can be met. Dwelling(s) construction must meet the minimum setback requirements stated in Table 18.0 DIMENSIONAL REQUIREMENTS, regardless of when the LOT was created.

2) A LOT created prior to the adoption of the Lake Class Development Standards (April 15, 1997), or as later amended, but substandard in size to the Lake Class Development Standards, may have a single family dwelling unit constructed on the LOT provided that all minimum setback requirements can be met and a wastewater treatment system is installed. Additional dwellings shall be constructed only in accordance with Lake Class Development Standards.

4.417 LAKE CLASS DEVELOPMENT STANDARDS

(Sub Para)	Classification	Lot Size (Square Feet)	For each Single Family Dwelling Unit - Lot Width (Feet)	Shoreline Setback (Feet)	Lot Depth (Feet)	Vegetation Removal	Side Yard Setback for all Structures
(1)	General Development 1	20,000	100 *200	75	200	30' corridor within 35' of the ordinary highwater mark	10' minimum - 40' minimum total
(2)	Recreational Development 2	30,000	150 *300	75	200	30' corridor within 35' of the ordinary highwater mark	20' minimum - 50' minimum total
(3)	Natural Development 3	40,000	200 *400	75	200	30' corridor within 35' of the ordinary highwater mark	30' minimum - 60' minimum total
(4)	Rivers and Streams	30,000	150	75	200	30' corridor within 35' of the ordinary highwater mark	20' minimum - 50' minimum total

*Note: Two family dwelling/duplex. One mobile home park site or three (3) CAMPGROUND/RV sites are considered to be the equivalent of a single family DWELLING UNIT.

4.418 LIST OF LAKES CLASSIFICATION

The following classification lists identify lakes named in "Surface Water Resources of Sawyer County:" four acres and larger in size published by Wisconsin Department of Natural Resources and appearing by name on the 1:24000 scale topographic maps published by the U.S. Geological Survey, commonly referred to as the U.S.G.S. Quadrangle Maps.

Named lakes under four acres in size and all unnamed lakes listed in the "Surface Water Resources of Sawyer County", Wisconsin Department of Natural Resources are considered Class 3 protection lakes.

It should be noted that Sawyer County's shoreline regulation jurisdiction extends only to those portions of shoreline outside the boundaries of any incorporated municipality.

Development standards for rivers and streams refer to all rivers and streams in Sawyer County deemed by the Wisconsin Department of Natural Resources to be navigable.

The A-1 (Agricultural One), A-2 (Agricultural Two) and F-1 (Forestry One) Zone Districts supersede the Lake Classification Development Standards.

The Township of Spider Lake existing zone district dimensional requirements supersede the Lake Classification Development Standards.

Classification 1

Barber	Birch	Chetac, Lake	Chippewa, Lake	Connor
Grindstone Island (S02, T39, R05)		Lac Court Oreilles	Little Court Oreilles	Little Round (S36, T41, R08)
Lost Land	Nelson	North Round	Sand	Sissabagama
Smith	Spider	Squaw	Teal	Whitefish
Classification 2				
Ashegon	Barker	Bennett	Beverly	Billy Boy Flowage
Black	Black Dan	Blaisdell	Blueberry	Brunet Flowage
Burns	Cattail	Clear	County Line Lake	Durphee
Evergreen	Fawn	Fishtrap	Ghost	Grimmh Flowage
Ham	Hayward	Heron	Holmes	Hunter
Indian School	James	Johnson	Lake Winter	Little Ole
Little Sissabagama	Lovejoy	Lower Clam	Lower Twin	Mason
McClaine	McDermott	Meadow	Mirror	Moose
Mosquito Brook Flowage	Mud (S17, T38, R09)		Ole	Partridge Crop
Perch (S35, T40, R05)	Phipps Flowage	Pickerel(S14, T38, R03)	Pickerel(S32, T38, R09)	Pine Island

Placid	Radisson Flowage	Schoolhouse	Spring (S12, T40, R09)	Spring (S14, T41, R07)
Summit	Swamp		Teal River Flowage	Tiger Cat Flowage
Totagatic Flowage	Upper Holly	Upper Twin	White Birch	Windfall
Windigo				
Classification 3				
Adina	Beaver (S27, T41, R06)		Beaver (S18, T42, R06)	Blue Gill
Boos	Boribo	Borns	Buff	Bulldog Spring
Bullhead(S36,T42,R09)	Bullhead(S28,T42,R06)		Bunker	Burd
Callahan/Mud	Camp Four, East (S11, T41, R07)		Camp Four, West (S11, T41, R07)	Champagne
Camp Four (S06, T42, R06)	Camp Smith	Carpenter	Catfish	Currier
Christner	Christy	Colbroth	Company	Deer
Davies	Davis	Dalano	Dead	Filing Shed
Devils	Eagle Nest	Evelyn	Farnsworth	Goose
Garbutt	Glover	Goodman	Goodwin	Gurno
Grant	Green (S14, T40, R08)		Green (S29, T38, R09)	Hegmeister
Hadley	Hanson	Hauer Springs	Hay Creek Springs	Horseshoe(S11, R42, R07)
Helane, L	Hess	Hope	Horseshoe (S12,T42,R07)	Island
Hub	Hungry	Ike	Indian	Lewis
Jacques	Kelly	Knuteson	Larson	Little Spring
Little Cranberry	Little Round (S09, T41, R09)		Little Sand	Lynch
Lost (S26, T38, R08)	Lost (S17, T40, R07)		Lower Holly	Minnemac
McClain	McLaren	Miller	Milny	Mud (S16, T39, R05)
Mossback	Mud (S27, T39, R09)		Mud (S07, T40, R09)	Osprey
Mukwonago	Murphy	Murray	Noble	Pearce
Pac-wa-wong	Pac-wa-wong Spring		Patsy	Phipps Lake
Pelican	Perch (S25, T42, R06)		Petty	Reed
Phipps Spring	Pike	Porcupine	Red Ike	Saddle
Ring	Rogers	Rush	Sabin	South L. (North)
Sickles	Silverthorn	Snag	Snipe	Sunfish
South L. (South)	Spruce	Star	Stearns	Two Axe
Thomas	Tripp	Trout	Twenty-Seven Lake	Weirgor
Two Boys	Two Deer	Venison	Villard	
Whiplash	Williams	Wilson		

4.419 MITIGATION REQUIREMENTS

INTRODUCTION: Mitigation is the requirement to restore (or create) shoreline buffer functions on all waterfront properties that do not meet Shoreline Vegetation Protection Area requirements (see Section 4.410 SHORELINE VEGETATION PROTECTION AREA). Mitigation shall apply only to the LOT for which a Land Use Permit is issued. This section is not applicable to those Chippewa Flowage properties subject to the restrictive covenants implemented by the 1984 Chippewa Reservoir Settlement Agreement (i.e., 100-foot and 200-foot buffer zones).

1) Waterfront properties with an existing intact shoreline vegetative protection area. The application for a land use permit will require property owner certification on a form provided by the Zoning Department and photographic evidence of an intact shoreline vegetative protection area.

2) Waterfront properties without an intact shoreline vegetative protection area. The application for a land use permit will require a Mitigation Plan and Implementation Schedule to be approved by the Zoning Department prior to the issuance of the land use permit. Photographic evidence may be either digital or film and, if digital, may be transmitted to the Department via electronic means.

3) Mitigation responsibilities for condominiums.

(a) Mitigation is the responsibility of the condominium association and shall be in accordance with a mitigation plan approved by the Sawyer County Land and Water Conservation Department (SCLWD).

(b) Once approved, a plan can only be amended with the approval of the SCLWD.

(c) Land Use Permits shall not be issued until a copy of the approved plan has been submitted to the Zoning Department and the president of the association has submitted a letter to the Zoning department stating that the association accepts responsibility for the mitigation.

4) Mitigation responsibilities for mobile home parks with shoreline frontage.

(a) Mitigation is the responsibility of the owner of the mobile park and shall be in accordance with a mitigation plan approved by the Sawyer County Land and Water Conservation Department.

(b) Once approved, a plan can only be amended with the approval of the SCLWD.

(c) Land Use Permits shall not be issued until a copy of the approved plan has been submitted to the Zoning Department.

4.420 RESOURCE MANAGEMENT AND AGRICULTURAL EXEMPTIONS

The following activities are exempted from the provisions of Section 4.410 SHORELINE VEGETATION PROTECTION AREA and Section 4.411 LAND DISTURBING ACTIVITIES LANDWARD OF THE SHORELINE VEGETATION PROTECTION AREA.

1) Fish and wildlife habitat management activities if included in a Wisconsin Department of Natural Resources approved management plan

2) Commercial timber harvest and other forestry activities including land disturbing activities (such as forestry road building) if: Such lands are located in a Forestry or Agricultural Zone District;

All cutting practices near lakes and navigable streams must be consistent with shoreland zoning requirements, and Such activity complies with appropriate practices specified in Wisconsin's Forestry Best Management Practices For Water Quality published by the Department of Natural Resources or a plan approved by the Sawyer County Land and Water Conservation Committee.

3) Agricultural cultivation if:

Such lands are located in an Agricultural Zone District and;

Such activity complies with appropriate practices specified in Chapter NR 151 RUNOFF MANAGEMENT or a plan approved by the Sawyer County Land and Water Conservation Committee.

4.421 STRUCTURES WITH NONCONFORMING SHORELINE SETBACKS

WDNR Administrative Rule NR 115 (3)(e) addresses nonconforming uses. Alterations or additions are regulated. A conforming structure shall not be converted to a nonconforming structure by use of this section. Dwellings constructed based on an average setback from navigable waters are considered to be conforming to that setback.

1) General:

a. Attached uninhabitable structures (i.e., attached garage) may be converted to habitable area with the issue of a land use permit.

b. Additions/alterations begin at the closest point of construction/alteration to the OHWM (i.e., point where new roof ties into an existing roof etc.).

2) Nonconforming principal structures (includes all dwellings any portion of which is less than 75 feet from the ordinary high-water mark OHWM of navigable waters).

A nonconforming principal structure any portion of which is less than 40 feet from the ordinary high-water mark is permitted ORDINARY MAINTENANCE AND REPAIR and INTERNAL IMPROVEMENT. Expansion is not allowed except by variance.

New basements, additional stories, lofts, lateral expansion or accessory construction outside of the perimeter of existing enclosed dwelling space are not allowed except by variance.

Replacement of foundation and/or roof support systems is allowed only per 4.421(3) below and shall meet the requirements of Section 4.419 MITIGATION.

b. A nonconforming principal structure no portion of which is less than 40 feet from the ordinary high-water mark is permitted ORDINARY MAINTENANCE AND REPAIR and INTERNAL IMPROVEMENT. Replacement of foundation or roof support systems is allowed only per 4.21(3) below and the issue of a land use permit. Such structures may also be expanded provided a land use permit is obtained and:

The existing structure includes at least 500 square feet of enclosed, habitable living space.

Additions are located on the landward side of the structure.

If an addition extends beyond the 75-foot setback, only that portion which is 75 feet or more from the OHWM may extend toward the side yard.

The total footprint, including the existing structure and proposed addition, does not exceed 1500 square feet and the habitable living area does not exceed 3000 square feet, nor violate the impervious surface limitations of Section 4.422. IMPERVIOUS SURFACE LIMITATIONS.

A maximum height of 26 feet from the lowest grade to the highest peak of the building is not exceeded.

Basements may be converted to walkout basements only on the landward side.

Standard erosion and storm water runoff control measures must be implemented.

Mitigation shall meet the requirements of Section 4.419 MITIGATION. details.

Additions of more than 50 square feet shall also require the issue of a Land Use Permit for the purposes of tracking structure square footage.

3) Nonconforming accessory structures. All nonconforming accessory structures are limited to ORDINARY MAINTENANCE AND REPAIR. Replacement of foundation or roof support systems is allowed only per 4.421(3) below and may require mitigation. See Section 4.419 MITIGATION.

4) Replacement of Foundations and Roof Support Systems.

A land use permit is required for replacement of all structure foundations (i.e. basements, crawl spaces, piers, posts, slabs, etc.) and roof support systems (i.e. rafters, trusses, beams, purlins, etc.).

Exterior walls must remain in place.

Foundation support components:

(1) May be replaced to existing footprint dimensions only.

(2) Footings may be extended below the generally accepted frost-line of the locality.

(3) Habitable area requiring exterior ingress/egress (i.e., walkouts, doors, windows etc.) shall not be created.

Roof pitch may be increased for ventilation, snow-load or aesthetic purposes but may not create additional habitable area.

Mitigation may be required. See Section 4.419 MITIGATION for details.

Standard erosion and storm water runoff control measures must be implemented.

5) Nonconforming structures within the shorelands which are damaged or destroyed by violent wind, ice, vandalism, fire or flood may be reconstructed provided:

Damage which is due to an intentional act of the owner may only be repaired in conformity with the ordinance.

The owner must establish by competent evidence the specific extent of damage to a structure and its improvements.

Repair and reconstruction are limited to that part of a structure and its specific improvements which were actually damaged and similar building materials are employed.

Repair and reconstruction are in compliance with all other provisions of applicable ordinances.

MITIGATION may be required. See Section 4.419 MITIGATION.

A land use permit is required.

Standard erosion and storm water runoff control measures must be implemented.

6) Existing nonconforming boathouses. The ORDINARY MAINTENANCE AND REPAIR of nonconforming boathouses that extend waterward beyond the ordinary high-water mark of any navigable waters shall comply with the requirements of s.30.121, Wisc Stats (Overwater Boathouses).

7) Nonconforming patios, screen porches and similar structures.

a. General:

(1) Such structures are allowed ORDINARY MAINTENANCE AND REPAIR.

(2) Such structures shall be replaced only by variance.

(3) The open nature of the structure must be maintained. Such structures shall not be roofed, or enclosed with screened, solid or similar walls. Existing screen walls may be replaced as ORDINARY MAINTENANCE AND REPAIR.

b. Decks.

(1) Decks may be replaced within the existing footprint.

(2) Roofs shall not be constructed above decks.

(3) Decks shall not be screened or enclosed.

4.422 IMPERVIOUS SURFACE LIMITATIONS

INTRODUCTION: Extensive research shows that shoreland development results in increased quantities and velocities of runoff that may overwhelm infiltration capacity and transport sediment, nutrients and other pollutants directly to surface waters if proper management is not employed.

1) The maximum total area of impervious surfaces shall not exceed fifteen percent (15%) of a total shoreland lot area within 300' of the ordinary high-water mark .

2) The limitation on impervious surfaces may be increased to no more than twenty-five percent (25%) only with a Conditional Use Permit. A conditional use application shall include, at a minimum, the following documentation:

A topographic survey of sufficient scale (not less than 1" = 20') showing pre-construction and pre-excavation conditions including slopes/contours, water bodies, wetlands, vegetative cover, drainageways, roadways, buildings and all other impervious surfaces and any unique physical features of the lot.

(b) A site plan of similar scale showing the information required in (a) as proposed post-construction conditions, and shall include all erosion/sedimentation control measures, diversion/containment structures and total calculations of lot area and impervious surfaces.

3) The limitation on impervious surfaces located more than 300 feet from the ordinary high-water mark may be increased to no more than thirty percent (30%) only with the submission and approval of the Zoning Department of a Rainwater/Snow Run-off Retention Plan containing the same information required in 2(a) and 2(b) for a Conditional Use Permit.

4.423 CONDOMINIUMS

1) New Condominiums – created on vacant property. Includes properties from which existing structures have been removed for the creation of the condominium. All new condominium development of land that is not part of an existing condominium of record shall be in accordance with WiStat.703.27 and shall comply with all requirements of this ordinance as they pertain to the issue of land use permits for residential dwelling construction.

2) New condominiums – created from a LOT containing existing structures. Table 4.417 LAKE CLASS DEVELOPMENT STANDARDS and minimum zone district parcel size requirements shall not apply when creating the condominium. However, Table 4.417 LAKE CLASS DEVELOPMENT STANDARDS and minimum zone district parcel size requirements shall apply when a unit is to be replaced.

3) Existing Condominiums. Upon adoption of this amendment, (adopted December 18, 2003 - effective January 5, 2004) existing condominiums of record, as indicated by the recording of a condominium plat and condominium declaration, that do not meet the minimum requirements for residential development as stated in this ordinance may expand only to the extent of the existing and proposed units as indicated on the recorded plat. The creation of additional units beyond those indicated on the plat shall be in accordance with 2) above.

4) The alteration of, or the addition to nonconforming condominium units, shall be in accordance with Section 4.21 STRUCTURES WITH NONCONFORMING SHORELINE SETBACKS.

905.2.4 Firewood Permit Ordinance

**ORDINANCE #2-2009
FIREWOOD PERMIT ORDINANCE**

The Sawyer County Board of Supervisors hereby enacts the follow ordinance to be known as the Firewood Permit Ordinance.

SECTION 1 No one shall take or cut wood from county lands without first obtaining a permit for that purpose from the Sawyer County Forest Administrator or designee.

SECTION 2 Limitations on use of permits:

- a. Permit must be in immediate possession of permittee while cutting or taking wood.
- b. No permit shall be issued except for cutting firewood for the personal use of permittee or his/her immediate household, OR HIS/HER IMMEDIATE FAMILY,
- c. No cutting is allowed within one hundred fifty (150) feet of the American Birkebeiner Ski Trail.
- d. No tops or branches may be left on roads, ditches, trails, lakes or streams.

SECTION 3 Exceptions:

- a. Picnic and campfire use where wood will be used within three (3) days.
- b. Cutting otherwise authorized by Sawyer County; cabin permits, etc.
- c. This Ordinance does not apply to logging contracts.

SECTION 4 Penalties for Violation of Sections 1 and 2:

- a. Violators of Section 2, #1, #3, and #4 shall forfeit not less than fifty dollars (\$50) nor more than one hundred dollars (\$100).
- b. Violators of Section 1, Section 2 - #2 shall forfeit not less than fifty dollars (\$50) nor more than four hundred dollars (\$400).
- c. Each day of violation shall be a separate offense.
- d. Payment of forfeiture upon violation shall not preclude Sawyer County from seeking or obtaining restitution for wood taken in violation of this Ordinance.

SECTION 5 The County reserves the rights to cancel the permit at any time.

Adopted this 21st day of May 2009,

Sawyer County Board of Supervisors

905.2.5 Recreational Trail Sign Ordinance

**ORDINANCE #3-2009
RECREATIONAL SIGN ORDINANCE FOR SAWYER COUNTY**

The Sawyer County Board of Supervisors enacts the following ordinance to be known as the Recreational Trail Sign Ordinance:

- SECTION 1** The following ordinance shall pertain to information and directional signs located on Sawyer County lands.
- SECTION 2** Trail signs covered under this ordinance will include, but are not limited to:
- a. Cross-country skiing trails and routes
 - b. Snowmobile trails and routes
 - c. Mountain bike trails and routes
 - d. Horseback trails and routes
 - e. ATV trails and routes
 - f. Hiking and walking trails
 - g. Hunter/Walking trails
- SECTION 3** No one shall erect a sign of any type on County Forest lands without first obtaining permission from the Sawyer County Forestry Committee or Sawyer County Forest Administrator.
- SECTION 4** General Guidelines on Sign Usage
- a. All signs shall be installed, maintained and conform to specifications in the WDNR Trail Signing Handbook 8672.05.
 - b. All signs shall be placed within six (6) feet of the trail edge.
 - c. All information signs shall be placed on adequately sized wood or metal sign posts to provide stability and deter vandalism and be installed in the ground prior to October 15 **if** for winter use.
 - d. All informational signs visible from the trail shall conform to a color code. All information guide signs should be on a separate post from trail safety signs; although information and guide signs may share installed posts, where desired.
 1. Snowmobiling and ATV signs shall be brown with white letters.
 2. Bicycle trails shall be blue with white letters.
 3. Ski trails shall be brown with yellow letters.
 - e. All temporary signs or flagging used for special events will be removed within seven (7) days after completion of the event.
 - f. Trailhead information signs and maps may be attached to adequately sized wood or metal sign posts to provide stability and deter vandalism and be placed and anchored in the ground, and may be six (6) square feet in size.
 - g. All safety signs - *stop, caution, etc.* - will be attached to adequately sized wood or metal sign posts to provide stability and deter vandalism. No safety signs will be attached to live trees.
- SECTION 5** Business Sign Guidelines on Recreational Trails
- The purpose of these signs will be to direct the user of a trail to a destination on the trail (absolutely no advertising of any specific product name may be used).
- a. Business signs must conform to the color code of brown background and white lettering and a maximum of 12"x12" or 144 square inches.
 - b. Business signs shall only be placed at trail intersections and trailheads.
 - c. Business signs shall only be placed on adequately sized wood or metal sign posts to provide stability and deter vandalism.
 - d. Businesses desiring to erect signs on the trail system must be a local club or organization sponsor.
 - e. Only signs using the words or symbols for "Gas", "Food", "Lodging", and "Trail Sponsor" in conjunction with business names and distances will be allowed.

SECTION 6

Penalties for Violation of Sections 3, 4, and 5:

- a. Violators of Section 3 and Section 5 shall forfeit not less than \$50.00 nor more than \$400.00.
- b. Violators of Section 4 shall forfeit not less than \$50.00 nor more than \$200.00.
- c. Each above listed violation shall be for a separate offense.
- d. Each day of violation shall be a separate offense.
- e. Payment of a forfeiture upon violation shall not preclude Sawyer County from seeking costs to correct damages or to deny future signing requests.

SECTION 7

The County reserves the right to cancel the sign permit at any time.

ADOPTED THIS 21st DAY OF May 2009,

SAWYER COUNTY BOARD OF SUPERVISORS

This page was left blank intentionally

910

TIMBER SALE HISTORY

This page was left blank intentionally

910.1

ANNUAL GROSS TIMBER SALE RECEIPTS*

Year	No. Sales Advertised	No. Bids Received	No. Sold	Value of Sales	Income For Year
1995	33	194	32	\$415,191.15	\$424,477.43
1996	29	263	27	\$381,393.25	\$363,080.77
1997	27	134	23	\$387,142.70	\$670,927.60
1998	29	182	27	\$399,553.94	\$578,113.56
1999	38	225	38	\$766,80.80	\$640,377.81
2000	54	281	50	\$1,227,412.79	\$815,021.32
2001	37	158	33	\$829,800.97	\$1,072,162.41
2002	29	147	25	\$687,51.14	\$1,005,257.42
2003	29	114	22	\$963,308.40	\$886,486.17
2004	38	204	38	\$1,940,61.74	\$1,507,228.37
2005	41	182	40	\$1,624,325.56	\$2,094,266.64
2006	35	196	33	\$1,396,862.14	\$1,985,293.70
2007	36	135	31	\$976,069.70	\$1,794,805.97
2008	41	118	40	\$1,312,835.38	\$1,718,329.95
2009	51	307	51	\$2,888,636.58	\$1,794,588.85
2010	45	265	45	\$1,973,888.62	\$1,527,272.08

This page was left blank intentionally

915

**PERMITS, USE
AGREEMENTS,
POLICIES AND
CONTRACTS**



Sawyer County Forestry Department
Sawyer County Courthouse, 10610 Main Street, Suite 100
Hayward, WI 54843
Phone: (715) 634-4846 Fax: (715) 638-3234

SAWYER COUNTY TIMBER SALE CONTRACT

Tract Number _____

Contract Number _____

Agreement entered into between the Forestry Committee, Sawyer County, Wisconsin, hereinafter referred to as the "Committee" or "Seller", and:

hereinafter referred to as the "Purchaser."

The Purchaser may cut and remove all the marked or designated timber on the following described lands:

The Committee and Purchaser mutually agree that this contract is subject to the following provisions:

The Purchaser will completely perform his/her obligations under this contract in one year or by _____. A one year extension of time, may, however, be granted by the Committee because of extenuating circumstances. The contract should normally be completed in this two year period. For the second year extension, all stumpage prices will be increased by 10%. If a third year extension is necessary, all stumpage prices will be increased by 15%. The contract period, including extensions, should not exceed four (4) years.

Upon signing this contract, the Purchaser will deposit with the Sawyer County Treasurer a performance bond for 10% of the bid price in the amount of \$ _____ as a guarantee that the Purchaser intends to carry out the provisions of the contract.

Advance stumpage payments: 50% for sales \$5000 or less; 33 1/3% for sales between \$5000 and \$20,000; 25% for sales between \$20,001 and \$50,000; \$50,000 and more will be negotiable but not less than 15%. All payments must be made 24 hours prior to the start of timber cutting. Additional advance payments must be made within 48 hours of notification. Additional payments or refunds may be required upon final completion of the contract, depending on the actual volume harvested. The amount required for this timber contract is (____%) in the amount of .

SPECIFICATIONS

<u>Species or Products</u>	<u>Estimated Volume</u>	<u>Agreed Rate Per</u>	
		<u>M Bd. Ft</u>	<u>Cord</u>



Page 2 - Sawyer County Timber Sale Contract

Upon written notice by the Committee, or its representatives, to the Purchaser that he/she is not in compliance with one or more conditions of this contract, all operations must be suspended and may not be resumed without written authorization. The decision of the Committee as to whether the Purchaser is in compliance with the terms of this contract shall be final.

Upon failure of the Purchaser to comply with one or more of the conditions of this contract, the performance bond indicated above will be forfeited to Sawyer County upon written notice by the Committee, or its representative. Sawyer County may also seek damages or remedies for damages exceeding the value of the performance bond.

All timber marked or otherwise designated by the contract to be cut shall be cut progressively and to the satisfaction of the representative of the Committee, whether or not the quantity of such timber is more or less than the estimates comprising the specifications.

Best Management Practices shall be adhered to while Purchaser is operating on Sawyer County Forest land.

Unmarked or undesignated trees cut or damaged shall be paid for at double the stumpage rate specified, and timber wasted in tops and stumps shall be paid for at the rate specified. Any young growth bent or held down by felled trees must be promptly released. Additional penalties will be assessed to cover mileage and administration costs to assess the damages.

Title to all forest products shall remain with the County until the products are scaled and paid for by the Purchaser. Payment for scaled wood is to be made before the wood is hauled. A 1.5% per month finance charge (18% per year) will be assessed on all payments past due.

The ticket system will be used on the sale for pulpwood. **The contract number must be written on each ticket.** When in use, failure to deposit tickets in the lock box each time a load of cut products leaves the sale area will be considered a breach of contract. The middle ticket shall be detached either at the point the wood is scaled; or, if shipping by rail, this portion of the ticket shall be attached to the bill of lading.

All logs will be scaled with the Scribner Decimal C log rule. Conversion of MBF (thousand board feet) to cords or cords to MBF will be 2.40 cords per MBF for softwoods and 2.20 cords per MBF for hardwoods.

All sawlogs shall be separated from pulpwood when piled. All sawlogs shall be scaled by the County prior to hauling. When logs are decked, small ends of logs shall be piled all one way, and the random log lengths shall be marked on the small end with lumber crayon. Decks shall be no higher than six (6) feet. Logs shall be separated by species. All logs shall remain on the premises until scaled. Scaled logs shall be marked by the County when scaled.

Conversion Factors: Pulpwood sold by weight will be converted at the following rates: Red Pine and Aspen will be converted at 4600 lbs/cord. White Birch will be converted at 4800 lbs/cord. Mixed Hardwood will be converted at 5200 lbs/cord. Oak will be converted at 5500 lb/cord. Conversion rates for other species will be taken from the WDNR Timber Sale Handbook.

Utilization specifications: Utilize all merchantable cordwood to a 4" or smaller small end diameter, maximum of a 100" stick. Hardwood sawlogs or bolts will be utilized to a 10" or smaller small end diameter, inside bark. Softwood sawlogs or bolts will be utilized to a 10" or smaller small end diameter, inside bark.

When peeled cordwood is measured, it is agreed that 12.5% will be added to hand peeled volume and 25% will be added to machine peeled volume to compute the equivalent unpeeled volume.

Stump height in saw timber shall not exceed 16 inches, and shall not exceed 12 inches in pulpwood.

No skidding or piling of wood products on public roads or right-of-ways is allowed unless permission is granted by the Town Chairman or County Highway Commissioner.

Location, construction, and use of logging roads and camp sites are subject to advance approval by the Forester or the Township government where applicable. The Purchaser shall repair damage done to existing roads and these roads shall be left in as good or better shape than they were before the sale was cut. The Purchaser shall be responsible for repair or replacement of Land Survey Monuments within the sale area. In the event that the

Page 3 - Sawyer County Timber Sale Contract

performance bond is insufficient to cover such cost, Section 59.635, Wis. Stats., Perpetuation of Landmarks, may be enforced. No landings shall be built within 200 feet of a lake or stream unless permission is granted by the County.

The Purchaser shall be responsible for determining the boundaries of the sale area, and shall be liable for all trespass committed by the Purchaser outside of such boundaries.

Operation on an adjacent sale contract (on county and/or private land) by the same contractor will not be allowed without approval of the County Forestry Committee or County Forest Administrator.

The Purchaser shall do all in his/her power to cooperate with the fire protection officers to prevent and suppress forest fires and to comply with all state laws regarding timber slash disposal. Slash - All logging debris should be scattered across the tract. Tops and limbs should be lopped to 24" or less if specified on the sale map. Slash that falls onto the land of an adjoining landowner shall be immediately removed from the adjoining land.

Roadways and trails shall be kept free from brush and waste resulting from the operation. If snowmobile trails are to be used as access to sales, they may not be plowed to bare ground, and must be kept free of slash and debris at all times.

Any logging generated waste (oil cans, cables, used oil, tires, etc.) shall not be disposed of on site but shall be disposed of properly. Spills of petroleum or other hazardous fluids must be reported, according to state law, to the proper authorities.

All necessary water crossing permits will be the responsibility of Sawyer County.

The Purchaser agrees to assume all liability for any damage or injury to persons or property, real or personal, resulting from the Purchaser's operations under this contract and will hold the County harmless for the same.

This contract cannot be assigned in whole or in part.

All modifications to this contract must be in writing, signed by the parties hereto.

A Purchaser deemed by the Seller to be in breach of this contract may also be refused the opportunity to bid or obtain future timber sales from the County for a period not to exceed two (2) years from the date of determination of the breach.

Worker's Compensation Insurance Required

To the extent that it is applicable to the Purchase, the Purchaser agrees to perform all operations under this contract in compliance with Wisconsin Worker's Compensation Act, Chapter 102, Wisconsin Statutes, and all rules promulgated there under. The Purchaser agrees to provide the Seller with a valid certificate of worker's compensation insurance (\$500,000 minimum) listing Sawyer County Forest as a certificate holder and covering all employees of the Purchaser. Purchaser shall indemnify and hold Seller harmless for any worker's compensation costs related to timber producers on the premises. It is also understood that there is no employee-employer relationship between the Seller and Purchaser, and any subcontractor of the Purchaser.

The Purchaser agrees to provide the Committee with a certificate from Wisconsin SFI Training Standards upon signing all new contracts as of November 2, 2006. The standards are:

WISCONSIN SFI® TRAINING STANDARD**Qualified Logging Professional:**

Professional Training - (once every two years) Choose one of the following: Chainsaw Safety, Mechanized Training, Log Truck Driver Training, Business Management, Cross Training for Loggers & Foresters, Invasive Species, or Threatened & Endangered Species.

1st Aid/CPR - One time only for SFI, however OSHA requires 1st Aid every 3 years and CPR annually.

Best Management Practices (BMP) - One time only, however refreshed information will be incorporated into all training offered.

Continuing Education - (8 hours annually) Includes loggers' conferences and continuing education workshops offered in the 2011 SFI® Workshop Brochure.

At a minimum, the Contract Holder and one "in-woods" person actively responsible for each logging site must be a "Qualified Professional." In some cases, the Contract Holder may also be in the "in-woods" person.

All cutting requirements listed on sale map and prospectus are to be honored as a part of this contract.

Dated:

**FORESTRY COMMITTEE
SAWYER COUNTY, WISCONSIN**

Approved:

By:

**SAWYER COUNTY FORESTRY
COMMITTEE**

Sawyer County Forest Administrator

Purchaser

Effective 3/09

Page 4 - Sawyer County Timber Sale Contract

Sawyer County Rutting Policy

Rutting Standards

Soil compaction and rutting can reduce the productivity of a site, disrupt surface drainage and infiltration, and contribute to erosion and sedimentation. Compaction occurs over broad areas, but does not necessarily result in visible depressions. Ruts are depressions, such as furrows or trenches, created by breaking through the forest floor.

Guidelines

- Existing roads systems will be utilized when environmentally appropriate
- The Forest Administrator will have final approval in designating the location of roads, landings, and skid trails, and may consult with other County and DNR staff.
- Wisconsin Forestry Best Management Practices for Water Quality (BMP's) and this Plan will be followed during all phases of the timber sale to prevent or reduce erosion and sedimentation to surface waters and wetlands.
- Expanding the footprint of roads, landings, and skid trails to maneuver around wet or muddy areas that develop during use is prohibited unless authorized by the Forest Administrator
- It is expected that appropriate measures will be taken to prevent excessive rutting. If excessive rutting occurs, forestry operations will be suspended.
- The Forest Administrator may modify standards in this policy if modifications provide equal or greater soil and water protection. Depending on site conditions, rutting standards may need to be more restrictive or flexible. Detail of and justifications for modifications must be documented in the timber sale narrative and timber sale field notes.
- This policy applies to forestry operations. Problems occurring from recreational use or operations shall be handled as prescribed in appropriate handbooks or guidance.

Standards

Forest Roads

- Rutting is prohibited on forest roads within a riparian management zone (RMZ). New forest roads are to be located outside of RMZs, except at stream crossings.
- In wetlands, a rut on a forest road may not exceed 50 feet in length with depths of 6 inches or greater.
- In uplands, a rut on a forest road may not result in channelized flow into a wetland or water body.
- Other ruts are acceptable provided it is shown that they can and will be repaired prior to final sale close out.

Landings

- Landings are prohibited in wetlands unless the timber sale is located in a large wetland complex without suitable upland landing sites. Wetland landings may only be used during frozen ground conditions. Details of and justifications for modifications must be documented.
- In uplands, a rut on a landing may not result in channelized flow into a wetland or water body.
- Other ruts are acceptable provided it is shown that they can and will be repaired prior to final sale closeout.

Skid Trails

- Ruts with depths of 6 inches or greater may not exceed a total of 25 feet in any 100 feet
- Total rut length on skid trails may not exceed 10% of the total length of skid trails.

General Harvest Area

- The rutted area for an acre of general harvest area may not exceed 5% (six inches or deeper).
- The average rutted area per acre may not exceed 2% of the total harvest area.

Measurements

Forest Road Rut Length is determined by measuring the length of ruts with depths 6 inches or greater.

Skid Trail Rut Length is determined by measuring the total length of ruts and dividing by the total length of skid trails. The length of rut made by each wheel or track is measured separately.

General Harvest Area Rutted Area is determined by measuring the length and width, in feet, of ruts, greater than 6 inches in depth, in an acre of harvest to determine square feet of rutted area. This total is divided by 43560

915.2

FIREWOOD PERMIT

Sawyer County Forestry Department

Sawyer County Courthouse

10610 Main Street, Suite 100

Hayward, WI 54843

Phone: (715) 634-4846

Fax: (715) 638-3234

SAWYER COUNTY FOREST WOOD RESIDUE PERMIT



SITE NUMBER(S) _____

Issue Date _____

Expiration Date _____

NAME _____

ADDRESS _____

Phone Number _____

Permission is hereby granted to harvest firewood for **PERSONAL HOME USE FUELWOOD** in area(s) as designated by the maps attached. Permittee, and permit with Site Number attached, must be present when removal of wood occurs.

The Permittee is required to:

1. No standing trees (dead or alive) may be cut down.
1. Keep all trails and roads open at all times.
2. Keep all slash 10 feet from any trail.
3. Keep all slash outside the right-of-way of any public road.
4. Stay within designated areas as described on the attached map(s). Failure to stay within the described areas may result in Sawyer County taking trespass action against the Permittee.
5. Use of tractors, rubber tired or track mounted skidders, etc. are not allowed.
6. Report any or all violations as observed to the Sawyer County Forestry Department - phone 715-634-4846 or 715-634-6728.
7. Permittee indemnifies and holds harmless Sawyer County from any claims, damages, or liability resulting from any action or inaction of the permittee, its employees, or agents.

Permittee

Forest Administrator



#SCS-FM/COC-083G-
©1996 Forest Stewardship Council
FSC PURE

Person Issuing Permit _____



NSF-SFIS-1Y943

915.3 BOUGH PERMIT

**PERMIT TO CUT
BOUGHS ON SAWYER COUNTY FOREST LAND
Permit Fee - \$50.00**

Date _____

Name and Address: _____

is authorized to remove boughs from Sawyer County Forest Land described
as: _____
_____.

No trees are to be cut down.

Permittee

Forest Administrator
Sawyer County

Sawyer County Forestry Department

Sawyer County Courthouse

10610 Main Street, Suite 100

Hayward, WI 54843

Phone: (715) 634-4846

Fax: (715) 638-3234



PERMIT TO CUT CHRISTMAS TREES ON SAWYER COUNTY FOREST LAND - FOR PERSONAL USE Permit Fee - \$5.00 PER TREE (MAXIMUM OF 3 TREES)

Date _____

Name and Address: _____

is authorized to cut _____ Christmas trees from Sawyer County Forest Lands.
Black or White Spruce, Balsam or White Pine may be cut. No trees will be cut within
100 feet of a road or over 12 feet in height. This Permit is good for 60 days from date
shown above.

Permittee

Forest Administrator
Sawyer County


FSC
#SCS-FM/COC-083G-
©1996 Forest Stewardship Council
FSC PURE


SFI
NSF-SFIS-1Y943

915.5 LOW USE ACCESS PERMIT

Control Number _____

Date _____

**LOW USE ACCESS PERMIT
ACROSS SAWYER COUNTY LAND**

This indentation is made by and between Sawyer County, a political subdivision of the State of Wisconsin, hereinafter called the Permitter, and

hereinafter called the Permittee.

THIS IS NOT A PERPETUAL TRANSFERABLE EASEMENT.

THIS IS A LIMITED USE LICENSE THAT IS NOT TRANSFERABLE.

WITNESSETH, that the said Permitter, subject to and in compliance with the conditions hereinafter specified, hereby grants a permit to the Permittee to establish an access to Permittee lands, on the following described land in Sawyer County, to-wit:

Said permit is valid for a term of five (5) years commencing January 1, _____ and ending December 31, _____.

In consideration for said permit, the Permittee hereby agrees to pay to the Permitter as the permit fee the sum of five dollars (\$5.00) per year for a total of \$25.00 for the duration of the permit. It is further agreed that said permit will not be valid until such time as the annual permit fee is paid to the Permitter.

The access on Permitter lands is for public use. The intended use for which the roadway is needed will be for hauling pulpwood to a primitive cabin. The width of the road shall remain less than two (2) rods. No gate shall be erected on county lands by the Permittee. Should the general intended use for which this permit was granted by changed or altered, this permit shall be automatically null and void by action of the Sawyer County Forestry Committee.

Permittee shall be liable for all costs of constructing, improving and/or maintaining the access. Timber cut to establish or improve the access road shall be charged to the Permittee at the normal rate of stumpage. The County continues full ownership of the improved roadway. However, the County shall not be liable for maintenance or upkeep of the road.

The access route shall be determined and laid out and approved by the County Forest Administrator. All other necessary permits are to be obtained by Permittee.

It is hereby agreed that the Permittee shall hold the Permitter harmless for any and all acts or conditions in regard to the premises described herein where said acts or conditions give rise to or might give rise to a liability on the part of the Permitter herein.

Executed and approved in duplicate this date: _____

**SAWYER COUNTY FORESTRY COMMITTEE
Sawyer County, Wisconsin**

Permittee

Sawyer County Forest Administrator

915.6

RECREATIONAL CABIN PERMIT (REMOVED 12/31/10)

SAWYER COUNTY RECREATIONAL CAMP PERMIT

Control Number _____

Date _____

THIS INDENTURE is made by and between Sawyer County, a political subdivision of the State of Wisconsin, hereinafter called the Permitter, and:

hereinafter referred to as the Permittee, whether one or more.

WITNESSETH, that the said Permitter, subject to and in compliance with the conditions hereinafter specified, hereby grants a permit to the Permittee to establish a recreational camp to be used for hunting or recreational purposes on the following described land in Sawyer County, to wit:

Said permit is written for a term of **ONE (1) YEAR**, commencing January 1, 2005 and ending December 31, 2005. This permit shall be validated each year by sending a copy of the receipt showing that payment of personal property taxes have been made for the previous year along with the annual fee for the current year. The **Annual Renewal Fee of \$500.00** and **Hunting Cabin Removal Fund Fee of \$500.00** must be paid by May 1 of the present year. If the Annual Renewal Fee and Hunting Cabin Removal Fee are not paid to the Permitter by May 1, an additional fee of \$10.00 will be assessed. **If said amounts are not paid by OCTOBER 31st of each year during the term of this permit, this permit automatically terminates and all rights of the Permittee hereunder forfeited.** Upon cancellation of the permit, the owners of the cabin will have six (6) months to remove the property from Sawyer County lands. The cabins are for occasional use only and not as a residence. Renting the cabin for a fee to another individual will not be allowed.

It is hereby agreed that the Permittee shall have the privilege of cutting such dead timber as is necessary to be used for firewood to heat the camp, but shall not cut any green timber or commit waste. This permit may be terminated at once by Permitter, if Permittee commits waste or damage on said property.

It is hereby agreed that Permitter may hold the camp and retain it for its own to compensate for any damages to said property, if any such damage is committed. Permittee shall have first option to renew said permit so long as the permitter continues to allow recreational camps to be placed on property owned by said Permitter, providing however, that Permittee has in the years previous to the issuance of any new permit, complied fully with the terms of the previous permit. This permit does not preclude the Permitter from establishing new provisions for any subsequent permit that might be issued by said Permitter. Further, it is hereby agreed that Permittee shall use only such property as is necessary for a camp on the real estate hereinbefore described, and further that said property shall be used for locating a camp thereon only. Nothing contained herein shall prohibit the Permitter from renting other portions of the aforesaid real estate or prevent the Permitter from using other portions of said real estate or prevent the general public from using other parts of the aforesaid real estate not needed by Permittee herein for said camp.

It is hereby agreed that the Permittee shall hold the Permitter harmless for any and all acts or conditions in regard to the premises described herein where said acts or conditions give rise to or might give rise to a liability on the part of the Permitter herein.

It is hereby agreed that any camp located on the land hereinbefore described shall be at least 200 feet off any access roads thereto and shall be a minimum of 600 feet from any lake, river or stream. The cabin should have a minimum size of 500 square feet of floor space and not over a maximum size of 800

Page 2 - Sawyer County Recreation Camp Permit

square feet. It is further hereby agreed to that Permittee shall comply with all laws and administration and commission orders of every kind and nature, including but not limited to provisions of the Sawyer County Zoning Ordinance and the Land Use Permits required thereunder.

"Private Road" signs and/or cables across access roads to your cabin will not be allowed as this is public land. Sawyer County does not allow the use of permanent tree stands. Nor are any nails or screws to be used with any portable stands. If the owner(s) or members(s) of the camp are found to be responsible for an illegal stand, the Permit for the cabin will be canceled.

Permittee must have the Control Number on the cabin. The area around the cabin must be kept free of garbage and other trash and in a relatively undisturbed manner.

No one is allowed to create their own trails for All-Terrain Vehicle travel on the Sawyer County Forest. Trails that are bermed, gated or otherwise signed shall be OFF LIMITS to ATV's. Other open logging roads and most dirt township roads are open to ATV use. Check with the local township chairperson if you are unsure about their ordinances.

Camps will not be allowed to have more than 6 dogs in the cabin area at any one time. (This rule is being initiated because of the abuses by a minor number of camps).

All other conditions that appear on the original permit form are applicable.

Contact Phone Number: _____

**SAWYER COUNTY
FORESTRY COMMITTEE**

Permittee Signature(s):

Sawyer County Forest Administrator

Date: _____

915.7 HAYWARD ARCHERY CLUB PERMIT

NOW COMES Sawyer County, a political subdivision of the State of Wisconsin, and hereby grants a permit to the **HAYWARD ARCHERY CLUB**, to establish a walk through style public archery range. The area for the range will be:

North of County Highway B and West of the Hayward Fire Tower -
Legal description is: S 1/2:SE of Section 30, Township 41 North,
Range 8 West

This permit is granted to the **HAYWARD ARCHERY CLUB** for a period of five (5) years, commencing _____ through _____. Sawyer County

grants the **HAYWARD ARCHERY CLUB** the option to renew this permit provided they serve written notice of its election to renew this permit upon Sawyer County at least six months prior to the expiration of this permit.

HAYWARD ARCHERY CLUB is required to furnish a copy of their liability insurance policy with Sawyer County named as insured. **HAYWARD ARCHERY CLUB** agrees to indemnify and save harmless Sawyer County for claims, loss and damage arising from or occasioned by the use of such described property. The range area is to be kept free of litter.

HAYWARD ARCHERY CLUB

SAWYER COUNTY FORESTRY COMMITTEE

President Date

Sawyer County Forest Administrator

Vice-President Date

Date

Secretary Date

MILITARY LAND LEASE (NO LONGER NEEDED OR USED 2009)
 Copy of Final Integrated Natural Resource Management Plan on file in Forestry Office

Renewal of Lease No. DACA45-5-99-00195

NATIONAL GUARD

DEPARTMENT OF THE ARMY

Corps of Engineers

DACA45-03-00383

LEASE NO. _____

CIV. ENG NORTHWESTERN DIVISION
 OMAHA DISTRICT

LAND LEASE

BETWEEN

SAWYER COUNTY, WISCONSIN

and

THE UNITED STATES OF AMERICA

1. THIS LEASE, made and entered into this 4th day of December 2003
 by and between SAWYER COUNTY, WISCONSIN

whose address is Sawyer County Courthouse, Hayward, Wisconsin 54843

and whose interest in the property hereafter described is that of owner for itself, its heirs, executors, administrators, successors and assigns, hereinafter called Lessor, and THE UNITED STATES OF AMERICA, hereinafter called the Government:

WITNESSETH: The parties hereto for the consideration hereinafter mentioned covenant and agree as follows:

2. The Lessor hereby leases to the Government the following described premises, viz:

Joint use of all land hereafter described: Sections 22 except NE ¼ NE ¼ and 27; the SW ¼, S ½ of NW ¼, SW ¼ of NE ¼, and the SW ¼ of SE ¼ of Section 23; E ½ of SW ¼, SW ¼ of SW ¼, E ½ of NW ¼, NE ¼ N ½ of SE ¼ and the SW ¼ of SE ¼ of Section 24; W ½ and SE ¼ of Section 25; all of Section 26, except the NW ¼ of the NE ¼, all located in Township 42 North, Range 8 West of the Fourth Principal Meridian; all located in Sawyer County, Wisconsin; containing 3,480 acres, more or less, as shown on Exhibit "A" attached hereto and made a part of this lease to be used for the following purposes:

- To provide a safety fan for the Government-owned firing range.
- To conduct training outlined in the Army Training and Evaluation Plan, which consists of tactical field exercises, map and compass courses, reconnaissance and patrolling, drivers training (only wheeled vehicles will be operated on the leased land), and winter training.
- Training not mentioned above may be conducted only with written approval of the Lessor.

ENG FORM 856, Jul 83 EDITION OF JAN 68 IS OBSOLETE. (ER 405-1-11 and EP 405-1-2)

3. TO HAVE AND TO HOLD the said premises for the term beginning 1 September 2003, through 31 August 2004, provided that unless and until the Government shall give notice of termination in accordance with provision 6 hereof, this lease shall remain in force thereafter from year to year without further notice; provided further that adequate appropriations are available from year to year for the payment of rentals; and provided further that this lease shall in no event extend beyond 31 August 2008.

4. The Government shall pay the Lessor rent at the following rate:

One thousand and no/100 dollars (\$1,000.00) per annum

Payment shall be made at the end of each year by the United States Property and Fiscal Officer (USPFO), Camp Douglas, Wisconsin 54618-9002

5. The Government shall have the right, during the existence of this lease to attach fixtures and erect structures or signs, in or upon the premises hereby leased, which fixtures and structures, or signs, so placed in, upon or attached to the said premises shall be and remain the property of the Government and may be removed or otherwise disposed of by the Government.

6. The Government may terminate this lease at any time by giving thirty (30) days notice in writing to the Lessor, and no rental shall accrue after the effective date of termination.

7. Any notice under the terms of this lease shall be in writing and signed by a duly authorized representative of the party giving notice, and if given by the Government shall be addressed to the Lessor at Sawyer County Courthouse, Hayward, Wisconsin 54853

and if given by the Lessor shall be addressed to the Omaha District, Corps of Engineers, Real Estate Division, 106 South 15th Street, Omaha, Nebraska 68102.

8. The Lessor warrants that no person or selling agency has been employed or retained to solicit or secure this lease upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Lessor for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this lease without liability or in its discretion to deduct from the lease price or consideration the full amount of such commission, percentage, brokerage, or contingent fee.

9. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this lease or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this lease if made with a corporation for its general benefit.

10. (a) The Government may, by written notice to the Lessor, terminate the right of the Lessor to proceed under this lease if it is found, after notice and hearing, by the Secretary of the Army or his duly authorized representative, that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Lessor, or any agent or representative of the Lessor, to any officer or employee of the Government with a view toward securing a lease or securing favorable treatment with respect to the awarding or amending, or the making of any determination with respect to the performing, of such lease; provided, that the existence of facts upon which the Secretary of the Army or his duly authorized representative makes such findings shall be in issue and may be reviewed in any competent court.

Fund Site: 131G79.N3d

131G79.N3 - 00363

(b) In the event this lease is terminated as provided in paragraph (a) hereof, the Government shall be entitled (i) to pursue the same remedies against the Lessor as it could pursue in the event of a breach of the lease by the Lessor, and (ii) as a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the Secretary of the Army or his duly authorized representative) which shall be not less than three nor more than ten times the costs incurred by the Lessor in providing any such gratuities to any such officer or employee.

(c) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this lease.

11. The Lessor agrees that the Comptroller General of the United States or any duly authorized representative shall, until the expiration of three (3) years after final payment of the agreed rental, have access to and the right to examine any directly pertinent books, documents, papers and records of the Lessor involving transactions related to this lease.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names as of the date first above written:

SAWYER COUNTY, WISCONSIN

In presence of:

Eric Mayberry
(WITNESS) 8-22-03
Paul Kelley
Chairman, Sawyer County Board of Supervisors

SAWYER COUNTY CLERK
PO Box 836
Hayward, WI 54843-0836

GARY D. BLAIR
Chief, Real Estate Division
Omaha District, Corps of Engineers

THE UNITED STATES OF AMERICA

By: *[Signature]*

(IF LESSOR IS A CORPORATION, THE FOLLOWING CERTIFICATE SHALL BE EXECUTED BY THE SECRETARY OR ASSISTANT SECRETARY.)

I, _____ certify that I am the _____ Secretary of the corporation named as Lessor in the attached lease; that _____ who signed said lease on behalf of the Lessor, was then _____ of said corporation; that said lease was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

(Corporate Seal)

WAGMS-03-00383

915.9

UTILITY LAND USE AGREEMENT - CORPORATION

Developed per situation by County Clerk's Office and County Corporation Counsel.

915.10

UTILITY LAND USE AGREEMENT – PRIVATE INDIVIDUAL

Developed per situation by County Clerk's Office and County Corporation Counsel.

**Application for Appointment
Sawyer County Recreational Trail Steward**

Individuals or groups currently managing, or wishing to manage recreational trails under the jurisdiction of the Sawyer County Forestry Committee, must apply bi-annually to the Committee for approval to serve as a Trail Steward. Applicants must provide answers to the following questions and provide a written management plan encompassing the two (2) year period including a trail map (accurate +/- 50 feet).

Name of Group of Individual _____

Address _____

Phone _____ E-mail _____

Web page _____

Group Size/Membership _____

Current Officers of Organization _____

Type of Recreational Trail _____

Name of Recreational Trail(s) _____

Page 2 - Sawyer County Recreational Trail Steward Application

Please attach a Management Plan with map(s) for the trails to be managed for the bi-annual period. The Management Plan shall include a minimum of:

1. A map of trail(s) and related facilities (accurate +/- 50 feet).
2. A maintenance plan for the trail surface describing planned maintenance type, frequency and timing. For example:
 - trail mowing 2 times/summer in June and August, or
 - grading and shaping 3 times/year in June, August and October, or
 - snow grooming (as conditions allow) 2 times/week beginning December 1 until April 1
3. A maintenance budget for the trail(s) including:
 - a list of funding sources and
 - amounts anticipated from each source
4. A development plan and budget for any proposed new developments or new trails.
5. For "shared" or multiple use trail(s), provide an explanation or agreement defining the division of responsibilities between two (2) or more Trail Stewards for maintenance and development of "shared use" trails during the two (2) year period.
6. For re-appointment as a Trail Steward, (after the initial two (2) year appointment), Steward will be expected to provide a short summary of accomplishments and expenses for the previous two (2) year period.

915.12

NATIVE AMERICAN GATHERING PERMIT

The same permits for firewood, boughs, and Christmas trees are used here. The forms are marked "Tribal Member" and no charge is made.

915.13 WILDLIFE HABITAT IMPROVEMENT PROGRAM

Legislation in 1995 amended Section 23.09(17M), Wis. Stats., changing the "Nickel-an-Acre" grant program to a direct partnership with those cooperating counties who have county lands entered under Section 28.11 (County Forests), Wis. Stats.

The intent of the amended law is: 1) "to improve the natural environment for wildlife"; 2) increase funding from five (5) cents to a maximum of ten (10) cents per acre; 3) establish a County Wildlife Management Fund; and 4) identify the comprehensive county forest land use plan as the cornerstone of the program.

These funds are used to finance a county forest wildlife habitat management program with primary emphasis on forest wildlife habitat improvement, inventories and wildlife education. DNR contact with the counties will be made through the county liaison officer (usually a DNR forester assigned to the county). Recreation development on county forests is aided by other programs (see M.C. 8719.5 and M.C. 8718).

Department wildlife managers are in the best position to ensure success of this habitat improvement. The local wildlife manager is responsible for the program and will work closely with the Department liaison forester and the county forest administrator through the initial planning, implementation, and final reporting.

Environmental analysis requirements must be met in accordance with Chapter NR 150, Wis. Adm. Code, and M.C. 1606.1. In general, any proposed action, activity, or project which has been previously identified in an approved property master/management plan or county forest Ten (10) Year Plan does not require any further environmental analysis. Consult with your regional environmental analysis and review staff if you have questions.

Procedures

- | | |
|---------------------------------|--|
| Liaison Forester | 1. In September/October, notifies wildlife manager of annual county forest budget and planning meeting with county forest administrator. Coordinate planning needs and works with wildlife manager in developing wildlife habitat improvement projects. Funded projects must be identified in the county's annual plan of work. |
| Wildlife Manager | 2. Develops and is responsible for wildlife projects with input and approval from liaison forester, county forest administrator, and county forestry committee. Provides technical expertise in project design, implementation and completion. |
| Bureau of Wildlife | 3. Obtains updated county forest acreage from County forest Specialist in Management Bureau of Forestry and vouchers calendar year payment. Payments should be made payable to the County Treasurer and send care of the County Forest Administrator. |
| | 4. Makes payment to the county's Wildlife Management Fund account of those respective counties who have an approved comprehensive county forest land use plan prepared under s. 28.11 that identified interest in this wildlife habitat improvement program. |
| County Wildlife Manager | 5. Upon completion of project, maintains records for audit purposes. |
| | 6. Submits annual planning and accomplishment reports through functional channels. |
| Regional Forestry/Finance Staff | 7. Conducts review of county records as part of the normal Department - County Forest audit/program review. |
| Regional Wildlife Staff | 8. Conducts periodic functional audits of program through review and approval of activities and practices incorporated into the annual planning and accomplishment reports submitted by wildlife manager. |

Guidelines

"Wildlife management operations shall be limited to approved projects designed to benefit wildlife and the natural environment." as stated in s. 23.09(17m)(c), Wis. Stats. All projects of critical importance in improving and/or enhancing wildlife - wildlife populations, wildlife habitat, and public understanding of wildlife on the county forests, re possible under this program.

Funded projects must be generally identified in the approved 10 Year Comprehensive Land Use Plan.

Caution must be exercised by the local wildlife manager who is responsible for the program, (in cooperation with the liaison forester, county forest administrator and county forestry committee), to assure that approved projects benefit wildlife habitat and wildlife populations.

With nearly three decades of active wildlife management programs on county forests, much has been learned about the benefits and affects of various wildlife practices. With this background, specific practices and guidelines follow. No attempt is made to identify all possible activities or to list project by priority. They are grouped by funding frequency as follows:

SINGLE FUNDING - These are projects funded once on a designated unit and/or location of the forest during the ten year duration of the comprehensive land use plan:

- a. Openings Development and Renovation - The opening of sites, locations, and amounts should comply with criteria established under M.C. 2112 and 2112.1.
- b. Trail Development and Renovation - Habitat projects would include hunter access trails, gating, and berming. **Important Note: A county forest access management plan that identifies long term needs, maintenance schedules and county forest policy will be required with the next 10 year land use plan.**
- c. Acquisition - Sites must have critical wildlife habitat value. For example, "blocking" of properties might be important to protect wildlife values and secure access; however, these funds should not be used to acquire random tracts.
- d. Capitol Purchase - Purchases should only be for specialized tools that are attached to existing equipment (i.e. rotary mowers, ATV trail seeders, compatible computer software, etc.) and/or machines that have specific application for, and a direct benefit to wildlife habitat and/or wildlife population improvement.
- e. Timber Sale Design - Projects should be for specific activities that enhance wildlife and wildlife habitat on timber sales, especially within intolerant forest types such as aspen, oak and jack pine.
- f. Site Preparation and Planting - Funding is available to assist in the perpetuation of important intolerant forest types such as jack pine and oak, and/or unique brush-prairie and grassland communities.
- g. Snag, Den and/or Rendezvous Sites - Projects could include various aspects in the identification, selection and management of these unique and important sites.
- h. Aspen Maintenance - This practices, normally handled as part of standard timber sale administration, is acceptable on sites with an average of less than seventy (70) and more than twenty (20) square feet basal area of residual.

Periodic Funding - These are projects that may require recurrent activity on the same site through the duration of the comprehensive land use plan:

- a. Trail Mowing, Openings Maintenance and Access Management - These practices, should only occur as part of an existing or planned access management program, and at an interval not less than once every four to eight years on any specific site. **Important Note: A county forest access management plan will be required with the next 10 year land use plan. Important Note: Annual recreational trail maintenance which goes beyond practical wildlife habitat management should utilize other funding sources.**
- b. Wildlife and Wildlife Habitat Inventories - Funding is available for projects that focus on specific species (Karner Blue Butterfly, Ruffed Grouse, etc.) or special needs (aspen maintenance, jack pine management, etc.). Field surveys, aerial photography and satellite imagery are included under this category. Costs associated with general purpose activities (i.e. ordered or traditional surveys, and forest-wide aerial photos) are not allowed.
- c. Wetlands Maintenance - Funds are only to be used for existing projects where wildlife management has a prior obligation with the counties. These funds are to be used for dike and structure maintenance, repair, or removal, depending upon local decision.
- d. Education - Only projects or materials that focus on wildlife education (habitat management, protection, research and/or enhancement) are allowed.
- e. Endangered and Threatened Species - Projects, for endangered and threatened wildlife, that enhance habitat through management are top priority. Access Management, artificial structures, and habitat surveys are also allowed.

General Instructions

1. To meet requirements of the law, a county must have an approved comprehensive county forest land use plan that indicates its desire to "improve the natural environment for wildlife on county lands".
2. As stated in s. 23.09(17m)(h) and (hg), funds will be allotted on a calendar year basis, with a carryover not to exceed the sum total of three years' allotment. Funds exceeding this amount or any that remain unused after five years, may, by demand, be returned to the Department.
3. All Wildlife Habitat Improvement monies must be deposited in a segregated non-lapsing account. Any unused funds will automatically be carried over to the next year, except as stated in item 2 above.
4. Indirect costs, donated labor, materials, land, etc., which do not result in an actual expenditure by the county are not allowable in force account projects.
5. Actual costs incurred by the county for labor of its personnel and use of its equipment is allowable. Equipment rental should not exceed the State Department of Transportation rates. Materials and accomplishments are to be in measurable items, i.e. cubic feet, board feet of lumber, aerial photos, miles, acres, etc.
6. All projects will have a designated beginning and ending date, with projects not to exceed three years.
7. No allotment will be made prior to approval of the comprehensive county forest land use plan. All expenditures must be within the agreed-upon project period.
8. Projects must be identified in the annual plan of work prepared by the county. If a project can not be completed or a project is postponed, a substitution may be made by the wildlife manager with approval of the forestry committee.
9. The regional forestry and financial staff will provide program audits, and the Bureau of Wildlife will provide functional audits.
10. Chapter NR 50, Wis. Adm. Code; s. 23.09, Wis. Stats; and the Wildlife Management Operations Handbook (2310.5) should be used as a reference for other procedures not specifically addressed.

3/11/98

NB23105.20/HB24605.220

915.14 STATE PERMITS

Pursuant to provisions of section 29.415, Wis. Stats., and NR 27, Wis. Adm. Code, the following procedures will be used for permits.

1. Endangered and Threatened Species Permit

- A. A completed permit application (Form 1700-1) must be sent to the Director, BER, Madison.
- B. The Director reviews the application and conducts an investigation including consultation with district, Law Enforcement and Legal Counsel staff. A permit is not required for activities in which the DNR is involved directly by cooperative agreement or by contract.

Each application will be considered on its own merit, but the following guidelines will be used for review:

1. Peregrine Falcons

Master Class Falconers either presently in possession of captive reared peregrine falcons banded with seamless bands provide by the U.W> Fish and Wildlife Service or who acquire such peregrines in the future **for falconry activities** do not need an Endangered/Threatened Species Permit.

No applications for propagation of peregrine falcons will be approved unless the applicant can provide proof that he is part of a formal breeding program with another state to provide peregrine for reintroduction.

2. Prairie Chickens

If restoration of prairie chickens in Wisconsin is ever pursued through a stocking program, it would be done using wild stock available from other states. Protection of existing wild populations of prairie chickens is being emphasized. For these reasons, it will be BER's policy not to issue any new Endangered/Threatened Species Permits for the captive propagation of prairie chickens (including all subspecies).

3. Trumpeter Swans

Highest priority will be given to using wild stock in reintroduction efforts. Should sources of wild stock become unavailable, BER will acquire captive-bred cygnets or eggs, but there is currently a sufficient number of suppliers with state permits available. There are also serious concerns about disease problems possible with captive bred stock and the complexity of regulating an ever-increasing number of captive breeders. BER's policy is that no more propagation permits will be approved for people not already in possession of trumpeter swans.

For people already in possession of "grandfathered" breeding pairs (acquired prior to August 1989), they do not need an Endangered/Threatened Species Permit to possess the original birds (they would receive a letter stating the original birds are grandfathered and explaining that a permit is needed for any offspring). Those permits would be issued with the following additional restrictions:

- a. The permit would exclude acquisition by gift or purchase of any additional birds (i.e., no net increase in the number of birds possessed is allowed except through reproduction of the original grandfathered birds or their offspring). Birds may be replaced through sale or trade to ensure genetic variability.
- b. Notification to and approval by BER of intent to sell or trade one or more trumpeter swans must occur before the sale or trade of any trumpeter swans takes place.
- c. BER will not approve any transaction between the permit holder and a private party if the private party does not possess the appropriate federal and/or state permits and if the transaction is not for the express purpose of conserving, protecting, restoring, and propagating trumpeter swans.
- d. Permit holders are not allowed to release any trumpeter swans to the wild.

4. Timber Wolves

It is the policy of BER not to issue Endangered/Threatened Species Permits for the propagation of timber wolves. No restocking of wolves will be done unless something drastically changes the recovery plan, so there is no biological reason to allow captive breeding. Permits for educational purposes may be granted, but will require submission of an education plan with the permit application and will specifically exclude propagation.

5. Other Species

Request to propagate other Wisconsin endangered and threatened species will be dealt with on their merits; however, BER's policy will be to only grant permits for propagation if there is a critical need for the species in questions.

C. Approval or denial of application

1. If denied, the reason for denial is sent with Notice of Review language.
2. If approved, the permit (Form 1700-2) is issued.
 - a. Activities affecting the numbers of any species in possession require filing Endangered/Threatened Species Inventory Addition or Reduction Receipts (Forms 1700-5 and 1700-6). Any additions other than by reproduction (i.e., purchase or gift) require prior approval by BER and may require an amendment to the original permit.
 - b. Activities including banding/markings must provide notification to the conservation warden in the county of the permittee's location.

D. Copies of the permit are submitted to the appropriate district endangered resources coordinator and to the Bureau of Law Enforcement, Madison. If any part of the activities are authorized outside the applicant's district, permit copies will be available to those districts also.

E. Renewals and Reports

1. Notification of expiration, accompanied by an annual report form, will be sent to permit holders in November.
2. Annual reports are required as follows:
 - a. Non-living specimens (i.e., pelts) - report required every third year (1991, 1993, 1997, etc.)
 - b. Live specimens (i.e., propagation) - annual renewal and report.
 - c. Collections (i.e., banding) - annual renewal and report.
3. The annual report (Form 1700-12) is due to BER by January 15.
4. A copy of the report will be sent to district endangered resources coordinators.
5. BER reviews report for completeness and authorized activities. Unauthorized will be investigated by BER with district help.

F. The permittee (and sub-permittees) must carry the permit upon their person when exercising permit activities. It must be available upon request in the event of inspection.

G. A permit issued under the authority of NR 1.18(3), Wis. Adm. Code, does not authorize the routine care of injured animals. (Rehabilitation permits are available through the district offices.)

II. Scientific Collectors Permits

NR 19.11, Wis. Adm. Code, provides the requirements and procedures for obtaining Scientific Collectors Permits.

Any person obtaining an Endangered/Threatened Species Permit need not obtain a Scientific Collectors permit.

Authority for issuance of Scientific Collectors permit is provided by s. 29.17, Wis. Stats.

See M.C. 9440.1 for further information.

GUIDELINES FOR DEFINING FOREST WILDLIFE HABITAT
MANAGEMENT PRIORITIES - MANUAL CODE 2112

The purpose of this directive is to provide a procedure for planning habitat work on all forest lands of the Department of Natural Resources north of highway W-21, and on all county forest lands with the approval of the county forestry committees. Improved habitat is to be achieved by identifying critical types, locating critical stands, collating and coordinating management objectives, and designating specific forest stands which require protection or specialized treatment.

Important Habitat Types:

"Important habitat types" are those forest types known to be important to wildlife or types without which a species would be significantly less abundant. Types important to deer include aspen, sodded openings, upland brush, scrub oak, jack pine and conifers used as deer yarding cover. Aspen, lowland brush-alder and upland brush are also important to ruffed grouse, woodcock and snowshoe hares. All of these types, except some yard types, are composed of shade-intolerant (sun-loving) species. Aspen should be maintained as a major component of a stand or as a major type wherever huntable populations of ruffed grouse are desired. Aspen interspersed with lowland brush-alder has especially high potential for booth woodcock and grouse.

While abundance of intolerant tree species alone is a key factoring game production, diversity is also necessary for range quality, forage variety, community stability and aesthetics. Habitat evaluation should proceed using a 1/4-township-size area (about 6,000 acres) as a basic habitat inventory unit (HIU). This size area provides greater perspective and choice than individual compartments, and better insight into type arrangement than total property statistics. The HIU facilitates record keeping and aids in achieving a desirable distribution of important habitat types over the property. The HIU facilitates large enough to reasonably provide all seasonal requirements of deer and other major forest game species. Table 1 contains compositional guidelines for evaluating deer habitat quality and for defining forest-type management priorities in northern Wisconsin. A breakdown of intolerant types is provided in the table because each is known to provide a unique requirement of deer. All tolerant types and plantations are combined in the table because these types produce uniform shading of the understory which reduces forage variety and quality.

Table 1 Compositional Guidelines for Evaluating Forest Habitat Quality

FOREST	<u>Percent Required to Maintain Specified Fall Densities</u>		
	<u>10 Deer/Sq. Mi.</u>	<u>20 Deer/Sq. Mi.</u>	<u>30+ Deer/Sq. Mi.</u>
Intolerant forest types	25	45	65
Grass & Upland Brush	1	3-5	5
Oak & Scrub Oak	5	10	20
Aspen & Off-Site Aspen	20	25	30
Jack Pine or Yarding Cover ¹	10	15	15
<u>Tolerant types² & Plantations</u>	<u>65</u>	<u>45</u>	<u>25</u>

¹ Cedar, Hemlock, Swamp Conifers, White Spruce, Balsam Fir, and White Pine

² Northern hardwoods, Mixed hardwood (Maple-Red Oak-Aspen-Birch), and Balsam Fir

These compositional guidelines should be applied to each HIU to determine local habitat needs and to insure interspersed habitat components. No HIU is expected to have the exact composition as recommended, and not all HIU's were, are, or will ever be quality game range. These guidelines are to be used as an aid for identifying present and potential habitat maintaining remaining components of good habitat. On the other hand, some HIU's may greatly exceed the minimum guidelines for a specific type, yet still contain critical stands based on deficiencies in adjacent HIU's or the total property. The paramount concern is that the property meet or exceed the minimum intolerant composition necessary to achieve the desired deer population goal. When an important habitat type falls below the percentage listed, it becomes a "critical type" on the property. Specific stands of critical type required to maintain diversity or wildlife abundance become "critical stands." The management objective is to identify and seek to maintain all critical stands.

Procedures for Inventorying and Maintaining Important Habitat Type

The following procedures are to be implemented on DNR lands north of high W-21 and all county forest lands following approval of the county forestry committees:

Wildlife Manager:

1. Establish survey units (HIU's) of about 1/4 township of 6,000 acres in size conforming to compartment boundaries where compartments are established.
2. Evaluate acreages of critical types by using compartment recon sheets, dot count summaries, or other available quantitative information where recon data has not yet been programmed. Forest openings must be inventories separately from aerial photos (see M.C. 2112.1) since forestry mapping standards do not provide the necessary information.
3. Analyze percentage of important habitat types (where compartment recon is complete and current) for each forest unit of the property as contained within Program 3 of Preliminary Recon Printout. Determine what types do not meet the minimum percentage desired within the unit. These become critical types on the property.
4. Construct current type map of each HIU by piecing together compartment BW type maps or use of township base maps. Evaluate these critical types (color-coding only critical types provides perspective) with reference to distribution within the unit, soil types in the area, and timber management objectives within the unit.
5. Designate critical stands that should be maintained.

Wildlife Manager and Property Manager:

6. Examine the management objective of each critical stand as coded on Line 12 of the Compartment Examination Record (Form 2400-26). See Compartment Reconnaissance Handbook (now Public Forest Lands Handbook, 2460.5) for coding.
 - a. All stands coded other than A should be reevaluated and discussed with the forester.
 - b. If economics of maintaining a critical stand are sub-marginal for forestry (may be coded B, F or G) and the subsequent stand will not have decidedly higher multiple-use values, wildlife management should schedule specialized treatment to maintain the stand.
 - c. If a stand is clearly (economically and ecologically) a case for natural or forced conversion, remove it from the list of critical stands.
7. Differences in objectives under 6b and 6c should be resolved in accordance with recognized Department goals. Changes should be noted on Lines 12 through 17 of the Compartment Examination Record and if significant, the property master plans or County Forest Comprehensive Plans amended accordingly.
8. Record locations of critical stands requiring specialized management on maps constructed for this purpose.
9. Coordinate habitat management projects for critical stands.
 - a. Forester and fish manager will inform wildlife manager when cutting in types adjacent to openings or in stands identified as critical.
 - b. Wildlife manager will coordinate maintenance activity in these critical stands.
10. Include appropriate management prescriptions in the property management plan after openings and critical types have been identified.

This directive provides revised goals for managing natural and constructed herbaceous forest openings for wildlife. Forest openings, especially on heavier soils, are classified as an important habitat (see M.C. 2112). It is important the herbaceous openings of 1/2 to 5 acres be set aside as permanent forest openings. The original goal of 3 to 5 percent natural openings was set recognizing that openings as seen on aerial photographs are of variable quality and poor distribution. Experience has shown that small acreages of managed forest openings may be sufficient to meet requirements of white-tailed deer. Furthermore, the acreage of constructed forest openings required is much less than for natural openings because quality, size and distribution can be controlled. Therefore, this directive provide a new two-pronged goal: one for natural openings and a send for constructed forest openings.

The following guidelines apply to all DNR lands north of Highway W-21 and county forests following acceptance by county forest communities and amendment of respective county forest comprehensive land use plans.

NATURAL FOREST OPENINGS

Definition: Pre-existing or maintained herbaceous openings that contain less than 10 percent stocking with trees and less than 30 percent stocking with brush; usually resulting from historic disturbances such as old camps, home-steads, log landings, frost pockets, etc., not mechanically constructed for wildlife objectives, but may have been reclaimed by herbicide treatment.

Objective: Seek to maintain up to 3 percent of the total land area in permanent herbaceous forest openings on each 1/4 township sized habitat inventory unit (HIU) as recommended by M.C. 2112.

Procedures: If forest reconnaissance type maps do not identify small forest openings, a special inventory will be required. Use procedures similar to those recommended in Appendix E, pp. 93-98 of DNR Technical Bulletin No. 44. Those forest openings identified, discussed with the Department land manager, and mapped as provided in M.C. 2112 are to be set aside as permanent openings and are not to be diminished by any project activity.

CONSTRUCTED FOREST OPENINGS

Definition: Mechanically constructed forest openings planted with a seed mixture designed to establish permanent herbaceous openings similar to natural openings; not annually farmed food patches.

Objective: Design clearings to provide up to 1 percent of the land area in herbaceous openings where none exist, or to augment natural openings where they comprise less than half of the recommended HIU composition prescribed in M.C. 2112.

Procedures: Inventory and maintenance of all natural openings in prerequisite to opening construction. Openings should be constructed on better soils, and priority should be given to areas where the forest composition in the HIU is not less than 15 nor more than 55 percent intolerant upland forest types. Constructed openings should be a minimum of 3/4 acre in size, but rarely larger than 2 acres depending on site. The minimum diameter should exceed 3 chains. Constructed forest openings should not exceed 1 percent of the land area of an HIU, nor exceed 2 acres on any 40-acre tract.

Departures from these guidelines are permissible only when additional values can be clearly demonstrated such as aesthetics, heavy human use, etc., or where these guidelines conflict with special use objectives such as wilderness areas, sensitive environmental corridors, etc., and exceptions identified in county forest comprehensive land use plans.

915.17 PUBLIC FOREST LANDS HANDBOOK - 2460.5

A copy of the Handbook is on file in the Forestry Office.

Reserve Trees

Reserve trees are living trees, ≥ 5 inches dbh, retained after the regeneration period under even-aged or two-aged silvicultural systems. They are retained well beyond stand rotation, and for purposes other than regeneration. They may be harvested eventually or retained to complete their natural lifespan (becoming a snag and then coarse woody debris). Reserve trees can be dispersed uniformly or irregularly, as single trees or aggregated groups or patches, or any mixture thereof. Synonyms include standards, legacy trees, and green tree retention.

The characteristics of desirable reserve trees are highly variable and depend on the intended benefits, the species present, stand condition, and site. Desired compositional and structural attributes may be present when trees are selected and stands are rotated, or additional time may be required for development.

Typical Characteristics of Desirable Individual Reserve Trees (either scattered or within patches) include:

- Large size (tree height, diameter, crown dimensions) for the species and site.
 - If large trees are lacking, then potential future large trees can be selected.
- Older trees with large size and rough bark.
- A mix of vigorous and decadent trees.
 - Vigorous trees of long-lived species can enable long-term retention and potentially yield a variety of benefits.
 - Decadent trees can provide current and future cavity trees, as well as future snags and down coarse woody debris.
- A mix of species, including locally uncommon species and mast trees.

The development and maintenance of large structures (vigorous trees, cavity trees, snags, down woody debris) and species diversity is typically encouraged.

Generally, poor candidates for individual reserve trees include:

- Relatively small (height, diameter, crown), suppressed to intermediate trees.
- Relatively young trees within the stand.
- These smaller, younger trees are retained in reserve groups and patches along with larger, older trees.

Exceptions to these typically desirable and generally poor reserve tree characteristics will occur.

Benefits of Reserve Tree Retention

Silvicultural practices are designed to manipulate vegetation to achieve management objectives. At its foundation, silviculture is based on understanding and working with ecological processes. Silvicultural practices that more closely emulate natural disturbance and stand development processes are more likely to sustain a wide array of forest benefits. Most natural disturbance regimes and events retain compositional and structural legacies in heterogeneous patterns and create ecological complexity. Silvicultural practices that develop and maintain reserve trees in managed stands can enable the promotion of ecological complexity – composition, structure, and pattern.

The retention of reserve trees can provide a “lifeboat” function that contributes to the conservation of biological diversity (see preceding section). These structures facilitate the perpetuation of some biota (plant and animal species and genotypes) on site. They also perpetuate habitat for re-colonization and occupation. They can improve landscape connectivity, facilitating the movement of some organisms. Reserve trees influence reorganization and recovery processes in post disturbance ecosystems; they can sustain functional roles and modify the post-disturbance environment.

The actual benefits achieved through the retention of reserve trees can be variable, depending on such factors as landscape composition and structure, stand composition and structure, site, retention design, and management objectives.

Some specific potential benefits include:

- Timber Production
 - Reserve high quality trees for future harvest
 - Perpetuation of tree species diversity
- Wildlife and Plant Habitat (Biodiversity)
 - Cover
 - Cavity (den) and nest trees
 - Display locations
 - Food (foraging, hunting)
 - Future snags and down woody debris (coarse and fine)
 - Habitat diversity
 - Protect special habitat
 - Travel corridors
- Aesthetics
 - Limit line of vision
 - Break up “clearcut” look
 - Retain visually unique trees
 - Provide diversity in future stand
- Water and Soil Quality
 - Reduce run-off
 - Reduce erosion

- Maintain water and nutrient cycles
- Miscellaneous
 - Buffer adjacent stands
 - Protect cultural resources
 - Landmarks, such as marker trees and witness trees

Potential Costs of Reserve Tree Retention

The retention of reserve trees in actively managed stands can provide ecological benefits desired by landowners and society. However, there are also costs or trade-offs. The primary potential cost is reduced timber yield at the stand-level. Also, retention can result in less available habitat for some wildlife species, particularly those that prefer open, treeless habitat. However, impacts on long-term forest ecosystem sustainability and productivity are uncertain; current understanding suggests that the maintenance of ecological complexity will more likely sustain long-term productivity.

Specific Potential Costs

- Potential additional operational costs to manage reserve tree retention
- Potential for reduced timber growth rates maintained by larger, older trees
- Potential for reduced short-term stand-level timber yields by foregoing harvest of some trees
- Potential for epicormic branching
- Potential for stem and crown damage during stand harvest
- Potential for crown dieback and mortality following harvest
- Potential for windthrow, particularly on wet or shallow soils, or for shallow rooted species
- Potential damage to younger stand if reserve trees are harvested during mid-rotation
- Reduced growth rates of regeneration occurring beneath reserve trees
- Potential sites for pathogen breeding and maintenance
- Potential for reduced habitat for or increased predation of certain wildlife species

Considerations for Reserve Tree Retention

Reserve overstory trees will shade portions of a newly developing stand. Increased numbers of dispersed reserve trees and trees with larger and denser crowns will cause more shading. Furthermore, reserve tree crowns can expand over time, increasing shading effects. Shading by reserve trees potentially can reduce growth within portions of newly developing established even-aged stands. The point at which growth reductions become significant depends on a variety of factors, including: stand management objectives (for reserve trees and young trees), growth rates and potential development of reserve trees, growth rates and shade tolerance of species comprising the new stand, site quality, understory competition, and potential damaging agents. In general, to promote optimum growth of established even-aged stands of reproduction,

(nearly) full sunlight is preferred. Under even-aged management systems, when objectives include the retention of reserve trees beyond the regeneration establishment phase, crown cover of <20% generally (for most species and conditions) will not significantly reduce vigor, growth, and development of most of the developing stand. If reserve trees are dispersed and expected to survive and grow, crown cover will increase over time; 15% crown cover is a generally recommended maximum for dispersed retention at final rotation. If reserve trees are aggregated, then shading impacts will be reduced; total crown cover retained could be greater, and will depend on stand management objectives.

Excessive shading may also be a concern when regenerating shade intolerant species in small stands or in narrowly linear stands, surrounded by relatively mature forest. In such cases, it may be necessary to retain fewer reserve trees. Alternatively, there may be opportunities to redesign stand boundaries creating a larger stand with increased opportunities for internal tree retention.

Reserve tree retention is a generally recommended silvicultural practice for stands ≥ 10 acres. It is encouraged in smaller stands, but operational, shading, and other biological issues may limit application.

Insect and disease and potential impacts on tree health should be another consideration in reserve tree selection and design. Regeneration methods are designed to foster the vigor of the regenerating stand. Although the imminent mortality of some reserve trees may be desirable or acceptable, typically some vigorous trees will be retained with the expectation of continued growth and survival (perhaps for a long time). When regenerating a stand and retaining reserve trees, potential risks to tree health should be evaluated, and methods implemented to reduce risks while achieving stand management objectives. In most cases, well designed regeneration and retention strategies can minimize risks; however, stand and site conditions may limit options in some cases. Refer to the cover type chapters in this handbook and forest pest management guidelines to appropriately consider and address insect and disease risks when selecting and designing regeneration methods and reserve tree retention for a specific stand and site.

Two examples of how insect and disease considerations can influence reserve tree selection and design:

- Red pine: Retaining red pine reserve trees when regenerating a new red pine stand may significantly increase the risk of *Sirococcus* and *Diplodia* incidence within the young stand. This risk is highly variable geographically; where experience has shown the risk to be significant, then retaining red pine reserve trees over red pine regeneration would be poor silviculture. In such cases, retain other species (e.g. oak) as reserve trees if available; if not available, then it may not be possible to retain reserve trees as generally recommended, but consider including representation of other species as part of stand regeneration

to provide increased options for future managers. Red pine can be an excellent reserve tree when regenerating other species (e.g. aspen or oak).

- Jack Pine: In general, retaining jack pine reserve trees when regenerating a new jack pine stand is not recommended, because of the risk of budworm outbreaks. When regenerating jack pine, other species (e.g. oak) should be retained as reserve trees if available. Jack pine can be retained as a reserve tree when regenerating other species.

Representation of reserve trees can range from none to many. If silviculture is to simulate, to some extent, natural disturbance processes, then most actively managed stands should include some level of structural retention. To accomplish general sustainable forestry goals that include multiple stand management objectives, recommended representation could typically range from 3-15% of stand area or crown cover. In some stands, particularly intensively managed single objective stands (e.g. maximize short-term economic returns, maximize pulp production, or maximize populations of wildlife species that prefer completely open, treeless habitat), landowners may choose to not retain reserve trees. In some stands, with appropriate species and site characteristics, where the optimization of tree vigor and timber quantity and quality is a minor concern, adaptive silvicultural practices that retain 20-60% cover could be considered by the landowner. It is recommended that sound reasons and expected impacts be documented when the decision is to retain reserve trees at less than or greater than the recommended level of 3-15% of stand area or crown cover.

Distribution of reserve trees can be evenly or irregularly dispersed individuals, groups, and patches.

Retention in aggregated patches provides the most benefits, including:

- patches of habitat that maintain forest floor, understory plants, and vertical structure within the patch, and increase compositional and structural diversity,
- more heterogeneity across the stand,
- less damage to retained trees during harvesting operations, and
- less impact on regeneration in stand matrix.

Patch retention should consider retention of large trees, cavity trees, and snags within the patches. Reserve patches can be thinned during the even-aged rotational harvest of the matrix; however, retention of unthinned patches potentially provides the greatest benefit. Patches can be located to complement other management objectives or respond to stand conditions; for example, patches can be located in riparian management zones, to provide connectivity between stands, and to protect sensitive sites (e.g. cliff faces and vernal pools) or endangered resources. Patches should be >0.1 acres and generally <2.0 acres, but can be larger; patches, particularly large ones, should be documented as retention patches.

Retention of evenly dispersed individual trees provides unique benefits, including:

- retention of comparatively more large trees, and
- wide distribution of structural benefits (large trees, snags, and coarse woody debris) and seed sources.

Retention of irregularly dispersed individual trees and small groups provides another strategy; this can be particularly useful to develop feathered edges to stands and reduce abrupt transitions and edge effects.

The general recommended strategy is to retain irregularly distributed patches along with scattered groups and individuals.

Area (acres)	Diameter (feet)	Square (feet)
0.1	74	66 x 66
0.25	118	104 x 104
0.5	167	148 x 148
0.75	204	181 x 181
1.0	236	209 x 209
1.5	288	256 x 256
2.0	333	295 x 295

Stand representation and spatial distribution patterns of reserve trees can be highly variable. The goal of heterogeneity of conditions indicates a wide array of retention strategies. Retention design, including amount to retain, species, and distribution, can enable the production of increased benefits and minimize potential costs. Criteria to consider when determining desired representation and distribution include: landowner goals and stand management objectives, current and desired stand and community condition, characteristics of current and desired plant and animal species, potential damaging agents, site, and landscape characteristics. Detailed landscape analysis and planning that clearly addresses the sustainable allocation of resources, including the production of timber and the conservation of biodiversity, can improve upon stand-based management guidelines (such as those offered herein).

Figure 24-7. Reserve trees retained in patches.



Photo by Jeff Martin,
J-Mar Photography

Figure 24-8. Reserve trees retained as a group.



Photo by Joe Kovach

Figure 24-9. Reserve trees retained irregularly as individuals.



Photo by Joe Kovach

Recommendations for Retention in Managed Stands: Reserved Trees, Mast Trees, Cavity Trees, and Snags

Sustainable forest management is implemented within a framework defined by landowner goals and objectives, ecosystem condition and potential, and sustainable silvicultural systems and practices. Forests are cultivated to provide a variety of socio-economic and ecological benefits. Sustainable forest management integrates multiple management goals and objectives into most silvicultural systems and the management of most stands and landscapes.

Most stands that are actively managed include timber production as a management goal (often in concert with other goals). Tree retention typically focuses on crop tree selection and regeneration methods. To satisfy multiple objectives and provide multiple benefits, retain additional trees to achieve non-timber management objectives. Integrate the following recommendations for tree and snag retention into the management of most forest stands:

- Even-aged rotations
 - Retain ≥ 3 (if available), preferably large, snags per acre.
 - Retain reserve trees and/or patches at 3-15% crown cover or stand area, including large vigorous trees, mast trees, and cavity trees. Reserve tree retention is a generally recommended silvicultural practice for stands ≥ 10 acres. It is encouraged in smaller stands, but operational, shading, and other biological issues may limit application.

- Even-aged intermediate treatments
 - Retain ≥ 3 (if available), preferably large, snags per acre.
 - Retain ≥ 3 (if available), preferably large, cavity trees per acre.
 - Retain ≥ 3 (if available), preferably large, mast trees per acre.
 - If previously established, manage reserve trees and patches. Management may include timber harvesting or passive retention. Consider retaining ≥ 3 trees per acre to develop into large, old trees and to complete their natural lifespan. These trees may also satisfy cavity and mast tree recommendations. These trees will often become large snags and coarse woody debris.
- Uneven-aged systems
 - Retain ≥ 3 (if available), preferably large, snags per acre.
 - Retain ≥ 3 (if available), preferably large, cavity trees per acre.
 - Retain ≥ 3 (if available), preferably large, mast trees per acre.
 - Consider retaining ≥ 3 trees per acre to develop into large, old trees and to complete their natural lifespan. These trees may also satisfy cavity and mast tree recommendations. These trees will often become large snags and coarse woody debris.

In cases where these recommendations for retention are not applied, then sound reasons and expected impacts of deviation should be documented.

When applying retention recommendations, be sure to consider:

- Retention will occur at the “Harvest Unit” level. Harvest Unit is defined as the stands within a timber sale. RMZ or Z prefix stands occurring within or adjacent to the Harvest Unit can provide retention opportunities. Retention will be encouraged in stands 10 acres in size or less that are managed as even-aged, but will not be required.
- Individual trees can provide multiple benefits and fulfill the intent of more than one of the above recommendations. For example, three large oak trees with cavities could satisfy the mast tree and cavity tree recommendations, as well as the large, old tree consideration.
- Retention of both vigorous and decadent trees will provide an array of benefits.
- In general, species diversity is encouraged when selecting trees to retain.
- Large trees and snags are >12 inches dbh, and preferably >18 inches dbh.
- Trees retained can be scattered uniformly throughout a stand or irregularly dispersed, as single trees, groups, and patches. The general recommended strategy is to retain irregularly distributed patches along with scattered groups and individuals.
- Retention in aggregated patches generally provides the most benefits for wildlife and biodiversity. Also, patches retained can satisfy multiple benefits; for example, at stand rotation, an internal or adjacent unharvested buffer along a

stream (RMZ) could provide a portion of reserve tree retention as well as satisfy BMP (water quality) recommendations. Patches should be >0.1 acres and generally <2.0 acres, but can be larger; reserve tree patches, particularly large ones, should be documented as retention patches.

- Harvesting of reserve trees may occur in the future or may be foregone to achieve other benefits. Retain reserve trees for at least one-half the minimum rotation age of the new stand (e.g. retain reserve trees at least 20-25 years if regenerating aspen). Consider retaining some trees to develop into large, old trees and to complete their natural lifespan; these trees will often become large cavity trees, snags, and coarse woody debris.
- Retain as many snags as possible. Retention of snag diversity (species and size) can potentially provide the greatest array of benefits. Snags that are determined to be a threat to human safety can be cut and retained on site as coarse woody debris.
- Clearly designate, in writing and/or by marking, which trees should be retained prior to any cutting operations

CAMBA (Chequamegon Area Mountain Bike Association) off-road trails traverse approximately eighteen (18) square miles of Sawyer County Forestland. There are three (3) trailheads which serve over one hundred (100) miles of trails. The trails are comprised of a combination of town and county Forest roads, American Birkebeiner Ski trail, snowmobile trails, and an assortment of woods roads and trails. Trailheads are located at the intersection of Mosquito Brook Road and the Birkie Trail; intersection of County "OO" and the Birkie Trail; and at Silverthorne Park.

Trails fall into three (3) general categories; those that follow existing Town or Forest roads and fire lanes and are also used by motor vehicles; those that follow unimproved roads where vehicular traffic is, for the most part, rare, if not impossible; and single track (narrow - 12"-24" wide trails of rustic quality) regarded by many as the most desirable type of off-road trail riding experience. Priority management should be given to the trails or portions comprised of single track. These single track trails are identified on CAMBA trail maps. Horses are prohibited on single track trails.

Trail uses will be restricted and trails closed as necessary during spring break-up, and extended wet periods in the summer and fall. Trails on the County Forest may need to be detoured, re-routed, or closed if erosion and open ground problems develop that cannot be otherwise remedied.

When practical, the following management practices should be observed:

- The area on both sides of the trails will be classified as Aesthetic Zone C.
- Every attempt will be made to implement long rotation management objectives in accordance with accepted harvest practices (average of fifty to eighty) 50 to 80 square feet of residual stocking within one hundred (100) feet on each side of the trail when hardwood species are dominant, excluding aspen and white birch. Clearcuts, if necessary, will be designed to minimize the aesthetic impact on the trail.
- Timber sale activity along the trails will be established to enhance trail use and safety.
- The Forestry Department will notify CAMBA of sale activity which may necessitate closure or temporary re-location of a segment of a trail.
- Any additional trails on County Forest Land must be submitted to the Forestry Committee for approval.
- Trail use may be temporarily or permanently closed or relocated for protection of the Forest environment and/or protection of the users.

The Sawyer County Forestry Committee has the authority and establishes the direction for management of the County Forest as outlined in the Comprehensive Land Use Plan. The County Forest Administrator is empowered by the Forestry Committee to administer and implement the County Forest Program in a manner consistent with the intent and purpose of the County Forest Law (s. 28.11(1), Wis. Stats.). The County Forest Administrator will coordinate activities and programs with the appropriate Federal, State and Local governmental agencies to ensure that Forestry Best Management Practices are applied in the majority, if not all, situations.

A specific situation is the management of the aesthetic corridor along the American Birkebeiner Trail System. The Trail traverses approximately twenty-six (26) miles of Sawyer County Forest land. Timber production and Forest management is a high priority throughout the Forest including the Trail corridor area. Visual quality is a high priority on Class A Aesthetic Zones. The Trail is a unique international tourist attraction to the area and requires the implementation of Forestry management guidelines and practices that reasonably protects and/or enhances the aesthetic value of the area directly adjacent to the Trail.

Therefore, the following policy will apply to the management of the Class A Aesthetic Zone along the American Birkebeiner Trail:

- Timber harvesting in the immediate vicinity of the Trail official buffer zone (within one hundred fifty (150) feet from trail edge) will be aimed specifically at improving the timber conditions of the Trail. The intent might be to provide vegetative screens and windbreaks to visually isolate Trail users from management activity; and, to provide for more environmentally appealing conditions for Trail users.
- County, State and American Birkebeiner representatives will coordinate timber sale activity along the Trail corridor to ensure that Forestry Best Management Practices are applied in all situations. The County Forest Administrator ultimately makes the decision on the appropriate course of action based on available information and facts.
- At times, due to disease, insect infestation, timber regeneration, or reforestation, the County Forest Administrator, in conjunction with the Department of Natural Resources (DNR), may determine that in the best interest of a forested area along the Trail more severe actions need to be taken to appropriately manage the area for the long-term. This might include actions such as clear-cut, select cut, slash of ground vegetation, etc. The American Birkebeiner will be notified in advance of such decisions to ensure that appropriate communication might be posted for users of the Trail.
- The goal of the County Forestry Committee will be to protect and/or enhance the aesthetic value of this unique natural resource, within reason. However, the overriding accountability of the Forestry Committee is the entire Forest ecosystem and managing the balance of this system in the best interest of current and future residents, property owners, visitors to the forest and the State of Wisconsin.

SAWYER COUNTY SNOWMOBILE ALLIANCE - SNOWMOBILE AND
ATV GROOMING CONTRACT

SAWYER COUNTY ATV & SNOWMOBILE TRAIL MAINTENANCE CONTRACT

This agreement was made between Sawyer County, a nonprofit political subdivision of the State of Wisconsin, party of the first part, and the **Sawyer County Snowmobile Alliance, P.O. Box 163, Hayward, WI 54843**, hereinafter called party of the second part.

WHEREAS, Sawyer County, Wisconsin has approximately 334.8 miles of snowmobile trails, 98.7 miles of winter ATV trails and 83.8 miles of summer ATV trails within its boundaries for use by the public for recreational purposes, and

WHEREAS, Sawyer County desires to have these snowmobile and ATV trails maintained and leveled for the safety and convenience of the public,

NOW, THEREFORE, in consideration of the mutual covenants herein contained, said **Sawyer County Snowmobile Alliance** bargains, agrees and contracts with Sawyer County to perform said maintenance and leveling under the following conditions and terms. It is hereby agreed between the parties:

First: Said **Sawyer County Snowmobile Alliance** agrees to maintain the snowmobile and ATV trails using their own equipment, and remove any limbs or trees which have fallen on said trails. Sawyer County agrees to pay up to Two Hundred Fifty Dollars (\$250.00) for each and every mile of snowmobile trail, Four Hundred Fifty Dollars (\$450.00) for each and every mile of summer ATV trail, and One Hundred Dollars (\$100.00) for each and every mile of winter ATV trails, subject to Department of Natural Resources approval of said work being performed in a satisfactory manner.

Second: It is further understood and agreed that the **Sawyer County Snowmobile Alliance** will perform said maintenance and leveling on the snowmobile trails as often as requested by the County or its representative, but at least one time each week during the snow season (beginning December 1, ____ and ending March 31, ____) and year round for ATV trails as funded.

Third: It is further understood and agreed that the **Sawyer County Snowmobile Alliance** shall clear away from said trail snowbanks left by a snowplow wherever trails cross a plowed road, in a manner which will not create a hazard to vehicular traffic.

Fourth: It is further understood and agreed that said maintenance shall be performed as shown on the snowmobile trails list marked "Exhibit A", and ATV trails list marked "Exhibits B & C" which is hereby incorporated into and made part of this document.

Fifth: It is further understood and agreed that **Sawyer County Snowmobile Alliance** shall be responsible for providing all equipment necessary for performance of trail maintenance.

Sixth: It is further understood and agree that Sawyer County has the right to terminate this contract at any time on the following conditions:

1. That the County determines the trail maintenance to be unsatisfactory.
2. That **Sawyer County Snowmobile Alliance** be notified in writing, at least twice, of this dissatisfaction.

Page 2 - SAWYER COUNTY SNOWMOBILE/ATV TRAIL MAINTENANCE CONTRACT

Seventh: It is understood and agreed that both parties hereto this contract acknowledge that all work pursuant to this contract by **Sawyer County Snowmobile Alliance** is done so by them as an independent contractor, and not as an employee of Sawyer County, and that the County does not have any authority to direct hours of work, nor to direct who is to work, or where, or when. It is hereby further acknowledged by both parties hereto that Sawyer County shall not be liable in any way for Workmen's Compensation, or unemployment insurance, or for vacation or vacation pay. It is further acknowledged by both parties hereto that the County shall in no way be liable for damages sustained as a result of injury to **Sawyer County Snowmobile Alliance** or any of its' employees, or that the County shall not be responsible for damages to property whether public or private, done by **Sawyer County Snowmobile Alliance** while maintaining trails under this contract. The operator shall carry his/her own liability insurance as well as insurance for property damage. The operator shall see that any damage is repaired as quickly as possible and the landowner be notified immediately of any damage when it occurs.

Eighth: It is further understood that the **Sawyer County Snowmobile Alliance** shall purchase and place stop signs, stop ahead signs, snowmobile and ATV trail signs of reflective materials along said trails so as to provide for safe travel.

Ninth: It is further agreed that the **Sawyer County Snowmobile Alliance** shall conduct a maintenance program to assure that the trails are free of logs, rocks, brush, and other similar debris. If an active logging job is along the trail, the logger will be responsible for debris he may have caused.

Tenth: Sawyer County agrees to advance 50% of the allowable grooming and brushing monies to **Sawyer County Snowmobile Alliance** for both snowmobile and ATV.

Eleventh: Monthly expense vouchers should be filed for each pay period by the 1st of the month.

Signed:

Sawyer County Forestry Committee

Sawyer County Snowmobile Alliance
President

Sawyer County Snowmobile Alliance
Secretary

Date

Date

**EXHIBIT A
SAWYER COUNTY SNOWMOBILE TRAILS**

<u>Trail and Location</u>	<u>Miles</u>
Bayfield Trail/Frog Creek Trail - Nelson Lake to Bayfield County line and Washburn County line to Smith Lake to Nelson Lake to Bayfield County line	20.5
Blueberry Trail - from Couderay to Blueberry Hill Resort	8.7
Chetac Trail - connects Stone Lake-Edgewater-Birchwood	8.0
Couderay Loop/Exeland Trail - off Tuscobia Trail south of Couderay to Exeland Trail and back to Tuscobia Trail	18.2
Dead Horse Connector Trail - from Tuscobia Trail to Ashland County line	8.6
Fish Trap Trail - from CTH B to Fish Trap Road	6.0
Fish Trap Trail North - from Fish Trap Road to junction of Trail 18	13.0
Fish Trap Trail - From Tuscobia to Fish Trap Road	13.5
Grade Trail - From Trail 31 Corridor to Stone Lake	3.0
LCO Connector/Little Round Trail - from Trail 30 to Ike's Motel and back to Corridor 31 near Chippewa Trail Road east and south ending at LCO shopping/government area	11.8
Loretta-Draper Trail - from Tuscobia south to Flambeau Forest	6.0
Lost Land Lake Trail - from STH 77 to Bayfield County line	14.5
Moose Lake Trail - from CTH B north to the intersection of CTH A and STH 77	12.0
Moose Lake/Ghost Lake Trail - from Moose Lake, Trail #21 north to junction of Trail 3	12.0
Musky Tail Trail - from Trail #21 and #3 to Trail 18	8.5
Ojibwa Trail - from Trail #10 Corridor to Chippewa River Boat landing	14.0
Rusk County Trail - from Tuscobia Trail in Edgewater south to Rusk County line	5.0
Seeley Connector - from Corridor #3 and #31 junction west to junction of Trail #63 to Sawyer/Bayfield County line	6.9
Seeley Hills Trail - Sawyer County Forest east of Seeley and Phipps	48.6
Spider Lake Trail - from Spider Lake Country Club north to Trail #77	5.1
Stone Lake-Edgewater-Birchwood Trail - Birchwood through County Forest	17.0
Stone Lake/Whitefish Trail - from Hayward to Stone Lake, then north to Robin Lane, Beechmoor and back to Trail 31	17.2
Tally Ho Trail - from Musky & Snow Country groomer shed parallel to Old Hwy 77	7.5
Trail 40 North - Tuscobia in Loretta north to Trail 25	10.5
Trail 63 North - Hayward to Seeley Connector	6.5
Trail 63 South - from City of Hayward south and west to Washburn County line	6.2
Tuscobia to Rusk County line	<u>26.0</u>
Total Snowmobile Miles-----	334.8

EXHIBIT "B"
SAWYER COUNTY ATV TRAILS

Winter Maintenance

<u>Trail and Location</u>	<u>Miles</u>
Dead Horse Connector - Tuscobia Trail to Ashland County line	8.6
Louie's Landing - from Forest Road 174 to Louie's Landing	13.0
Trail 31 to Barnes - from Seeley Firelane to Jolly Fisherman Road and Seeley Firelane to Bayfield Co. line	.8
Nine Mile Loop - off Tuscobia Trail south of Couderay	9.0
Phipps to Seeley - old railroad grade starting at Porkys Road to Seeley	5.6
Seeley Hills/Trail 15 - Hayward Power Sports to Seeley Hills and from loop by Hayward Fire Tower to Rock Lake Road, Rock Rock Lake Road south through Camp Smith Lake Road to Janet Road	27.0
Stone Lake to Birchwood - Birchwood through County Forest	15.0
Trail 5/3 - from Fire Road 319 to 320 to CTH S	7.0
Trail 6 - from Aborne Road to end of Dam Road	<u>9.7</u>
Total Winter ATV miles-----	95.7

EXHIBIT "C"
SAWYER COUNTY ATV TRAILS

Summer Maintenance

<u>Trail and Location</u>	<u>Miles</u>
Dead Horse Connector - Tuscobia Trail to Ashland County line	8.6
Island Lake Trail - Rock Lake Firelane to Bayfield County line	1.8
Louie's Landing Trail - from Forest Road 174 to Louie's Landing	13.0
Trail 31 to Barnes - from Seeley Firelane to Jolly Fisherman Road and Seeley Firelane to Bayfield Co. line	.8
Nine Mile Loop - off Tuscobia Trail south of Couderay	9.0
Phipps to Seeley - old railroad grade starting at Porkys Road to Seeley	5.6
Seeley Hills/Trail 15 - Hayward Power Sports to Seeley Hills and from loop from Hayward Fire Tower to Rock Lake Road, Rock Lake Road south through Camp Smith Lake Road to Janet Road	27.0
Stone Lake to Birchwood - Birchwood through County Forest	<u>15.0</u>
Total Summer ATV Miles-----	80.8

920

FACILITIES AND REPORTS

920.1

RECREATIONAL FACILITY INVENTORY

- # Campgrounds / # Campsites NONE
- # Group Campgrounds NONE
- Nature & Hiking Trails (# miles) 27
- Snowmobile Trails 334.8
- ATV Trails (# miles) 93.7 (Winter)
80.8 (Summer)
- ATV Trailheads 2
- Picnic area/shelters 2
- Swimming beaches NONE
- Boat landings 2
- Birkie buildings 2
- Birkie Trail Approximately 21-22 miles
in Sawyer County
- Hunter/Walking Trails Approximately 24 miles
- CAMBA Trails 45 miles

920.2

STATEMENT OF COUNTY FOREST LOAN

The County Forest Loan was paid up in 2002 and no loans have been used since.

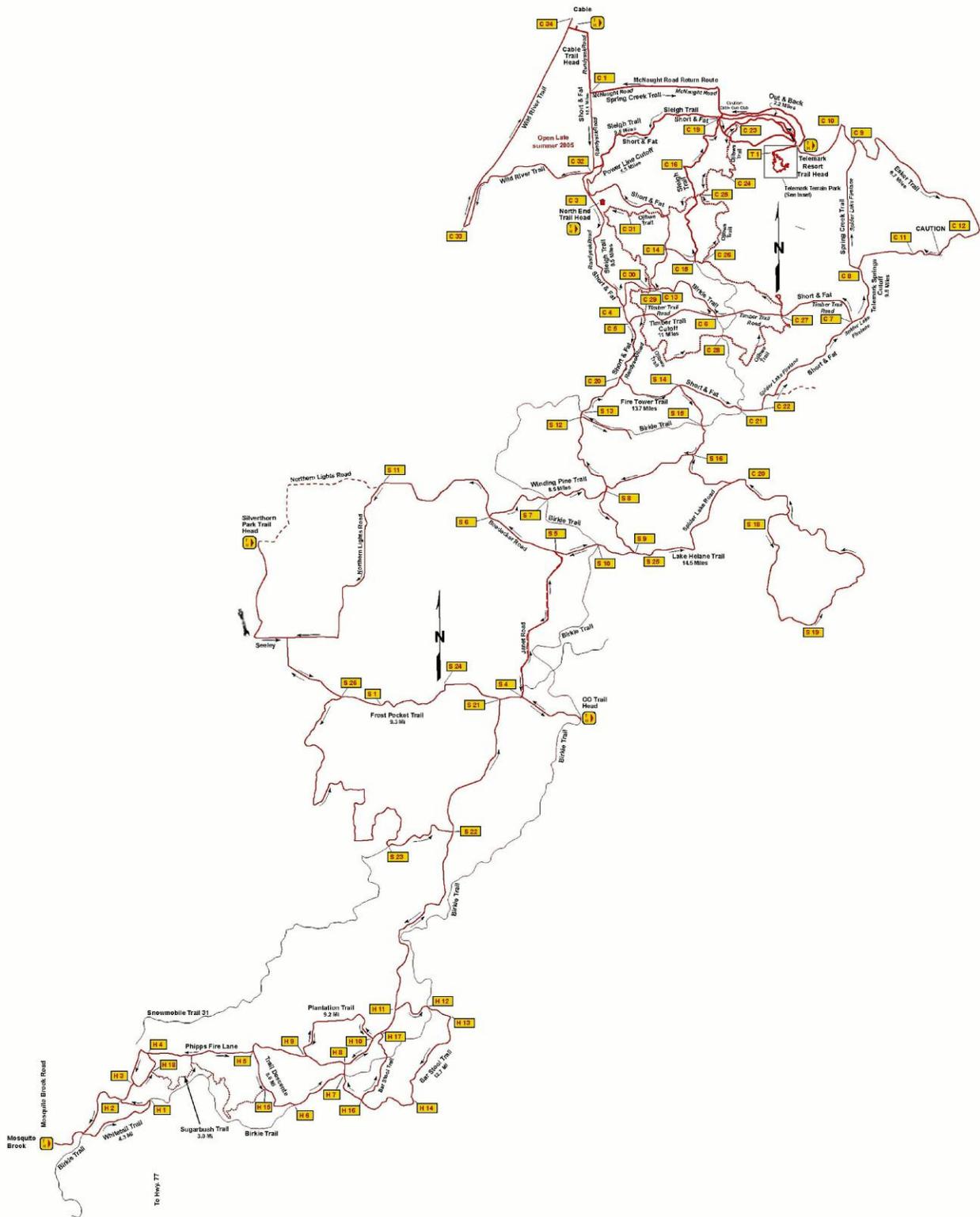
This page was left blank intentionally

925

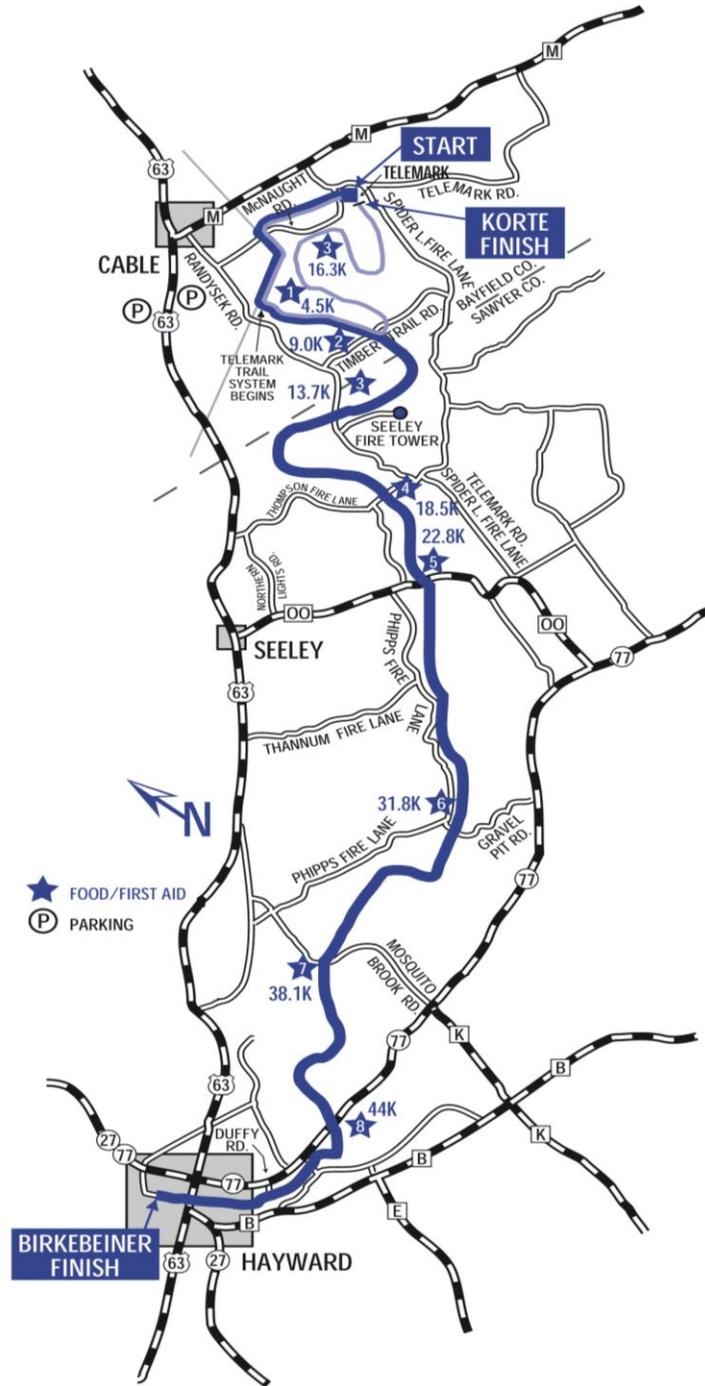
**MISCELLANEOUS
MAPS AND
BROCHURES**

900-117

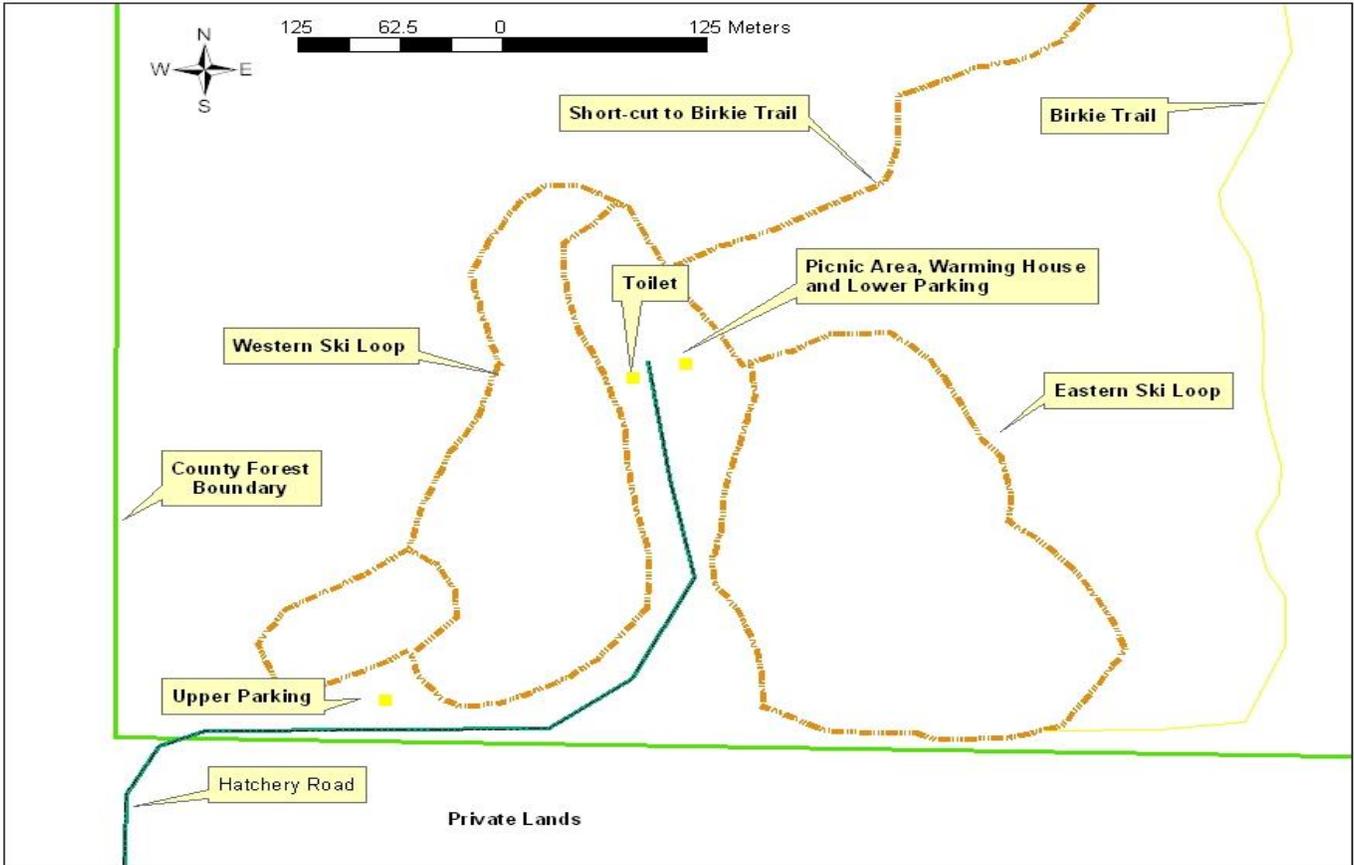
CHEQUAMEGON AREA MOUNTAIN BIKE ASSOCIATION MAP



SAWYER COUNTY CROSS-COUNTRY SKI TRAIL MAP



**Sawyer County Forest
Hatchery Creek Park Trails**



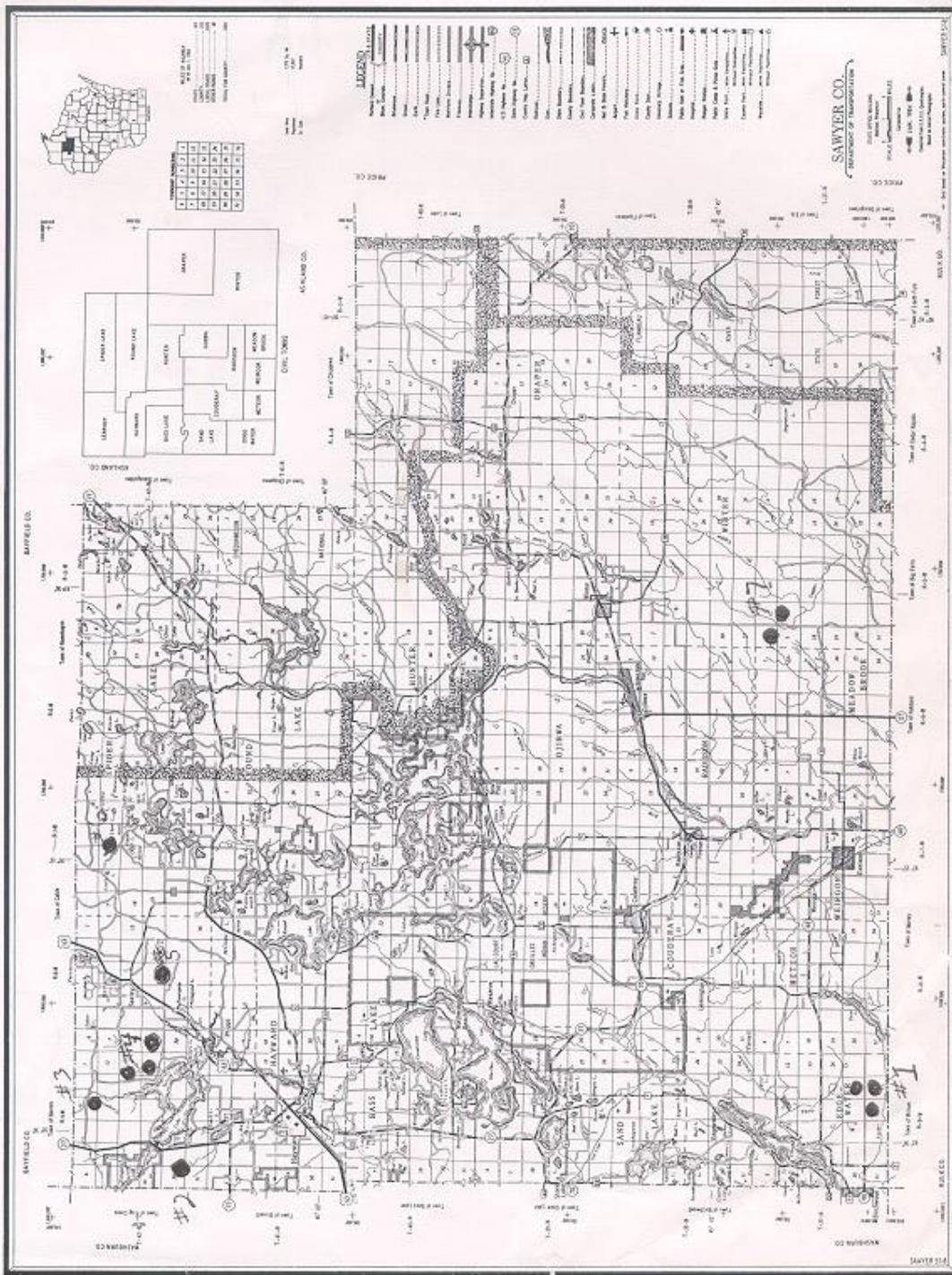
925.4

SAWYER COUNTY SNOWMOBILE/ATV MAP

See insert

This page was left blank intentionally

HUNTER WALKING TRAIL MAP



HUNTER/WALKING TRAIL DESCRIPTIONS

- #1 Three trails in Sections 26, 34 and 35, Township 37 North, Range 9 West
- #2 Multiple trails within Sawyer County Grouse Management Area in Sections 29, 30, 31 and 32, Township 42 North, Range 9 West
- #3 Section 3, Township 42 North, Range 9 West
- #4 Three trails in Sections 13, 19, and 24, Township 42 North, Range 9 West and along Tagalder Road and Tagalder Trail
- #5 Section 22 and 25, Township 42 North, Range 9 West
- #6 Section 10, Township 42 North, Range 7 West
- #7 Two trails in Sections 7 and 8, Township 37 North, Range 5 West

SAWYER COUNTY FOREST WATERS AND FISHERY RESOURCES

<u>Lakes</u>	<u>Area</u>	<u>Depth</u>	<u>Lake Type</u>	<u>Fishery</u>
Camp Smith	8	26	Seepage	Stocked, Trout Only
Weirgor Lake	36	11	Drainage	Warmwater, NP
Nelson Lake	2502	33	Impoundment	Warmwater, W WE/LMB/Pan
Green Lake	12	35	Seepage	Warmwater, LMB/Pan
Deer Lake	423	18	Impoundment	WK, NP/Pan
Buff Lake	17	22	Seepage	Warmwater, LMB/Pan
Pickrel Lake	14	22	Drainage	Warmwater, LMB/NP/Pan
Billy Boy Flowage	74	7	Impoundment	Warmwater, NP/Pan
Osgood Lake	4	10	Spring Pond	Stocked, Trout-Only
Phipps Springs	29	7	Spring Pond	Warmwater NP/YP
TigerCat Flowage	222	11	Impoundment	Warmwater, LMB/Musky
Mud/Callahan Lake	545	16	Impoundment	Warmwater, LMB/Musky
Smith Lake	323	28	Drainage	Warmwater, LMB/Pan
Totogatic Flowage	243	17	Impoundment	Warmwater, LMB/NP/Pan
Thornapple Springs	1	4	Spring Pond	Coolwater minnows
Mosquito Brook Flo.	270	8	Impoundment	WK, minnows ##
Mosquito Brook Spr.	0.2	7	Spring Pond	Wild brook trout
Unnamed Lakes- 64 tot*			Seepage	Unknown trout potential, most WK

<u>Streams</u>	<u>Miles Tot. / (Miles SCF)</u>	<u>Fishery</u>
Totogatic River	3.5/(3.1)	Wild brook trout, walleye spawning
N Branch Tupper Creek	6.5/(2.5)	Wild brook trout
Little Weirgor	12.1/(2.0)	Wild brook trout
Deer Creek	3.6/(3.6)	Wild brook trout
Mosquito Brook	3.0/(1.5)	Wild brook trout, Namekagon brown spawning
Hatchery Creek	1.8/(1.5)	Wild brook trout, restored habitat
Thirty Three Creek	5.3/(2.0)	Wild brook trout
Sucker Creek	6.6/(4.0)	Wild brook trout
Unnamed trib. Billy Boy	0.6/(0.3)	Wild brook trout
McDermott Brook	2.6/(0.5)	Wild brook trout
Thornapple River	29.7/(17.0)	Warmwater gamefish @@
Tupper Creek	11.3/(9.0)	Warmwater gamefish @@
Little Thornapple	6.4/(6.4)	Warmwater gamefish
Malviney Creek	0.6/(0.6)	Walleye spawning
Squaw Creek	2.9/(2.1)	Walleye spawning
Elm Creek	3.5/(2.0)	Warmwater forage
Boss Creek	1.7/(1.7)	Warmwater forage
Cold Brook	3.4/(2.4)	Coolwater forage
Tag Alder Creek	3.5/(2.7)	Coolwater forage
Hogsback Creek	2.8/(1.3)	Warmwater forage
Other streams	-----	Warmwater forage

Mosquito Brook Flowage- Sawyer County owns very small portion of otherwise private shoreline. Dam is failing and removal is desirable. Coldwater resource potential (Mosquito brook headwaters and numerous small springs and spring ponds) inundated and neutralized by the impoundment. *Number estimated by Pratt from latest aerial photos and GIS technology. Most, if not all, are probably winterkill with no fish or minnows. Some probably have seasonal coldwater potential for trout stocking, which should be determined by follow-up surveys. @@ Thornapple River and Tupper Creek drainages- Known troutwater reaches just outside SCF or in tributary streams. High likelihood of additional, undocumented, isolated coldwater habitats within the SCF. WK= winterkill lake; LMP- Lake Management Plan; BMP-Best Management Practices

**FISHERY MANAGEMENT ON SAWYER COUNTY FOREST, BY
MANAGEMENT STRATEGY**

Research and Surveys

<u>Items</u>	<u>Waters</u>	<u>Time frame</u>
Monitoring	Tiger Cat Chain Thornapple R. Smith Lake Mosquito Brook	Completed 2004 Completed 2004 Completed 2003 Annual trout recruitment reference site, on-going
	Billy Boy 33 Creek Tupper watershed Green Lake	Schedule in 2005-2015 Schedule in 2005-2015 Schedule 2005-2015 Schedule in 2005-2015
Evaluation	Camp Smith Lake Select unnamed lakes	On-going- trout stocking Start in 2005, seasonal trout candidates
	Osgood Lake	Completed 2004-trout stocking
	Nelson Lake	Begun 2003, on-going-LMP evaluation
	Smith Lake Tiger Cat Chain	LMP, 2007-2015 LMP, 2006

Habitat

<u>Items</u>	<u>Waters</u>	<u>Time frame</u>
Watershed protection via BMP's* Stream Habitat Restoration	All Mosquito Brook Hatchery Creek	On-going Completed 1976 Completed 1987
Beaver Control* Mosquito Brook Camp Smith Lake	All trout streams Dam removal Road mitigation	On-going If opportunity arises Plan 2004, implement 2005
	Aeration	Plan completed - Implement when funds available
Watershed protection via policy	All	Comprehensive ATV and road policy needed

Population Manipulation

<u>Items</u>	<u>Waters</u>	<u>Time frame</u>
Trout stocking	Camp Smith Osgood Select unnamed lakes	On-going 2005-06-Evaluate for potential
Walleye stocking	Nelson Camp Smith Tiger Cat Chain	On-going

Regulations

<u>Items</u>	<u>Waters</u>	<u>Time Frame</u>
<i>Prevailing Statewide regulations</i> Special, water-specific regulations	<i>Most waters and spp.</i> Osgood Lake trout Nelson Lake panfish	<i>On-going</i>
WDNR, Chapter 30 County Road and ATV Trout extended season	<i>Tiger Cat muskellunge</i> All All Camp Smith Lake Select waters	<i>On-going</i> On-going Needed On-going If needed to promote seasonal harvest

Public Information/Communication

<u>Items</u>	<u>Waters</u>	<u>Time Frame</u>
Lake Management Plans (LMP)	Nelson Lake	Completed 2004- implement 2005
Communication re: angling opportunity re: BMP's	Tiger Cat Chain Smith Lake All waters All waters	2006 After 2006 On-going On-going

***Beaver control is also included in BMP's via delineation of non-aspen buffer zones along trout streams**

925.8

CERTIFIED COUNTY FOREST ROAD MAP

Currently, Sawyer County does not have any certified County Forest Roads.

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 1000

NEEDS

1000	OBJECTIVES, FORMAT AND POLICY.....	2
1100	DETAILED ANNUAL NEEDS FOR PLAN PERIOD.....	2
1100.1	ANNUAL ALLOWABLE HARVEST.....	3
1200	SUMMARY OF PLAN PERIOD NEEDS.....	4
1200.1	EQUIPMENT.....	4
1200.2	FACILITIES.....	4
1200.3	PERSONNEL.....	4
1200.4	ROADS.....	5
1200.5	LAND ACQUISITION GOALS.....	5
1200.6	OTHER SILVICULTURAL ACTIVITIES.....	5
	1200.6.1 Pruning.....	5
	1200.6.2 Planting.....	5
	1200.6.3 Release.....	5
1200.7	PROPERTY MAINTENANCE.....	5
	1200.7.1 Surveying.....	5
	1200.7.2 Fire Control.....	5
	1200.7.3 Insect/Disease.....	5
	1200.7.4 Signs.....	5
1200.8	RECREATION.....	5
	1200.8.1 Snowmobile Trails.....	5
	1200.8.2 ATV Trails.....	5
	1200.8.3 Ski Trails.....	5
	1200.8.4 Bike Trails.....	5
	1200.8.5 Hiking Trails.....	6
	1200.8.6 Recreational Camp Permits.....	6
1200.9	WILDLIFE MANAGEMENT.....	6
	1200.9.1 Flowages.....	6
	1200.9.2 Endangered Resource Assessments.....	6
	1200.9.3 Hunter Access Trails.....	6
1200.10	FISHERIES MANAGEMENT.....	6
	1200.10.1 Structures.....	6
	1200.10.2 Surveys.....	6
	1200.10.3 Habitat Work.....	6

1000 OBJECTIVES AND FORMAT

Objectives

To provide guidelines which define the optimum level of activities that should be undertaken to achieve full potential benefits from the forest.

Format and Policy

Needs for the County Forest shall be listed without regard to budgetary constraints or other limitations. This list shall identify the forest potential in terms of public benefits, investments or opportunities, and financial returns. Silvicultural needs of the county forest are identified in the Forest Compartment Reconnaissance printout. The Department of Natural Resources (DNR) Public Lands Handbook describes the procedures for use of this information. Other needs shall be determined by the Forestry Committee and the Forest Administrator, with technical assistance from the Department of Natural Resources (DNR) and other interested agencies or individuals qualified to provide such assistance.

1100 DETAILED ANNUAL NEEDS FOR PLAN PERIOD

Annual silvicultural needs are identified in the Forest Compartment Reconnaissance printout. The printout, referenced in the Plan, is available at the County Forest Administrator's office. Printout listings include timber harvests, tree planting, and other silvicultural activities. Other unanticipated needs will be addressed in accordance with procedures outlined in this plan. These items will be identified and plans made for implementation, as part of the annual budget work plan prepared by the Forest Administrator and Forestry Committee. Annual work plans are approved by the County Board of Supervisors and forwarded to the Department of Natural Resources (DNR) as required by statute (s.28.11(5)(b) and s.28.11(5M)(b), Wis. Stats.).

1100.1 ANNUAL ALLOWABLE HARVEST (RESOURCE NEED)

**SAWYER COUNTY FOREST
Even-Aged Harvest Schedule
Potential Acres to be Harvested by Year and Timber Types***

Year

Timber Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Avg.	Previous¹ 10 Yr Avg	Adjusted² Avg
Aspen	771	721	740	885	792	700	716	708	715	917	767	617	767
White Birch	78	0	0	0	0	0	0	0	0	0	8	23	8
Cedar**	205	0	0	0	0	0	0	0	0	0	21	19	21
Fir/Spruce	97	0	0	6	0	0	0	0	0	11	11	84	11
Oak	108	95	0	6	61	0	0	82	119	113	58	83	58
Jack Pine	0	0	0	0	0	0	0	0	0	0	0	3	0
Red Pine	62	0	0	0	0	0	0	0	0	0	6	0	6
White Pine	276	112	71	53	37	52	38	38	49	93	82	96	82
Black Spruce	137	119	0	43	56	0	0	0	0	68	42	6	42
Swamp Conifer	346	0	0	0	93	0	50	21	0	30	54	32	54
Swamp Hardwood	722	149	59	140	177	0	16	0	0	85	135	113	135
Tamarack	142	81	10	17	23	11	19	10	19	28	36	49	36
Northern Hardwood	586	0	0	0	106	0	0	10	73	75	85	0	85
Hemlock Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3530	1277	880	1150	1345	763	839	869	975	1420	1305	1125	1305

**SAWYER COUNTY FOREST
Uneven-Aged Harvest Schedule
Potential Acres to be Harvested by Year and Timber Types***

Year

Timber Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Avg.	Previous¹ 10 Yr Avg	Adjusted² Avg
Northern Hardwood	3434	1231	1394	1280	1269	1281	1217	1308	1231	1216	1485	1513	1485
Hemlock Hardwood**	32	0	393	0	0	0	0	0	0	0	43	27	43
Aspen	347	0	69	67	12	0	0	0	69	15	58	23	58
White Birch	0	0	0	0	0	0	0	0	0	0	0	3	0
Fir/Spruce	167	41	0	0	18	0	85	0	11	67	39	42	39
Oak	1268	283	230	301	641	592	528	283	77	130	433	429	433
Jack Pine	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Pine	950	80	210	20	0	98	64	95	176	36	173	102	173
White Pine	1116	105	310	99	349	100	11	0	56	61	221	217	221
Black Spruce	0	0	0	0	0	0	0	0	0	0	0	0	0
Swamp Conifer	20	0	0	0	0	0	0	0	0	0	2	3	2
Swamp Hardwood	626	30	57	106	76	29	0	0	0	45	97	65	97
Tamarack	0	0	0	0	0	0	0	0	0	2	0	4	0
Total	7950	1770	2663	1873	2365	2100	1905	1686	1620	1572	2550	2428	2551

Note: the statutory planning period requirements were changed from ten, to fifteen years, just prior to adoption of this plan. Computer projections of harvests are currently only able to schedule ten years into the future. Consequently, harvest projects for the last five years of the plan will be added to the plan after five years or when upgrades to existing technology provide for it. Harvest activity during the last five years of this plan is not expected to change significantly from the levels depicted for the first ten years of the plan.

1200 SUMMARY OF PLAN PERIOD NEEDS

1200.1 EQUIPMENT

<u>INVENTORY</u>	<u>REPLACEMENT</u>	<u>EST. COST (2005 DOLLARS)</u>
Forest Administrator 4x4 1/2 ton pickup	2006 and 2013	\$23,000
Asst. Forest Administrator 4x4 1/2 ton pickup	2012	\$23,000
Forester 4x4 1/2 ton pickup	2011	\$23,000
Forester 4x4 1/2 ton pickup		
Tractor	2012	\$70,000
ATV (4x4)	2011	\$5,000
GPS Units	2007	\$10,000

1200.2 FACILITIES

<u>FACILITY</u>	<u>YEAR</u>	
Forestry Office	2007 \	Something needs to be done in the near future to accommodate staff and equipment
Forestry Shop	2007 /	

1200.3 PERSONNEL

Public Relations	Presentations, meetings	10 hours
Committee/County Board	Attendance	100 hours
Grants/Aids	Grant writing & administration	200 hours
Training	Mandatory and voluntary	100 hours
GIS	Mapping, recon	500 hours
Forest Certification	Policy, compliance	100 hours
Ordinance Enforcement	ATV, deer stands, etc.	100 hours
Wildlife Management		
Projects	Openings, special projects	100 hours
Road Construction	Timber sale roads	40 hours

1200.4 ROADS

1200.5 LAND ACQUISITION GOALS

1200.6 OTHER SILVICULTURAL ACTIVITIES

1200.6.1 Pruning

1200.6.2 Planting

1200.6.3 Release

1200.7 PROPERTY MAINTENANCE

1200.7.1 Surveying

1200.7.2 Fire control

1200.7.3 Insect/disease

1200.7.4 Signs

1200.8 RECREATION

1200.8.1 Snowmobile Inspect and maintain 334.8 miles;
Re-construct 2 miles

1200.8.2 ATV Inspect and maintain 95.7 miles
of winter trails and 80.8 miles of
summer trails; Rehabilitate 5
miles

1200.8.3 Ski Inspect and maintain 22 miles
(Birkie)

1200.8.4 Bike Inspect

- | | | |
|----------|-------------------------------|---|
| 1200.8.5 | Hiking | Inspect |
| 1200.8.6 | Recreational
Cabin Permits | Inspect and enforce leases of 50
cabins; Monitor removal of all
cabins by 2011; County removal
of abandoned cabins - 500 hours |
- 1200.9 WILDLIFE MANAGEMENT
- 1200.9.1 Flowages
 - 1200.9.2 Endangered resources assessments
 - 1200.9.3 Hunter access trails
- 1200.10 FISHERIES MANAGEMENT
- 1200.10.1 Structures
 - 1200.10.2 Surveys
 - 1200.10.3 Habitat work

Note: The "Needs" schedule is put together for planning purposes. The best available information has been used in developing the schedule. It is not intended to be followed without modification. Forests are dynamic and managers must be adaptive to change. Funding and staffing shortfalls may also impact the ability of the Sawyer County Forestry Department to fulfill identified needs. Refer to Chapter 2000 - Annual Work Planning, for reference on progress towards the identified needs in this chapter.

DRAFT

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 2000

ANNUAL PLANNING

2000	OBJECTIVE AND POLICY.....	2
2100	ANNUAL WORK PLAN AND BUDGET.....	2

2000 OBJECTIVE AND POLICY

Objective

To develop an annual work plan and budget that will satisfy the needs specified in Chapter 1000 to the great extent feasible, consistent with program priorities established in the Mission Statement.

Policy

The County Forest program will sustain a level of operation that considers the need of the forest and the public in accordance with the goals identified in Chapter 100.

2100 ANNUAL WORK PLAN AND BUDGET

Each year, an Annual Work Plan and Budget shall be prepared by the Forest Administrator with assistance from the Forestry Committee and the Department of Natural Resources (DNR) Liaison Forester. This plan shall be based upon the detailed annual needs contained in Section 1100 of the Plan. Annual work plans are approved by the County Board of Supervisors and forwarded to the Department of Natural Resources (DNR) as required by statutes s.28.11(5)(b) and s.28.11(5m)(b). Following County Board approval, a copy is provided to official copy-holders of the County Forest Comprehensive Land Use Plan for inclusion as an amendment in this chapter.

DRAFT

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 3000

ACCOMPLISHMENTS

3000	OBJECTIVE AND POLICY.....	2
3100	ANNUAL ACCOMPLISHMENT REPORTS.....	2
3200	PAST ACCOMPLISHMENTS.....	3
3200.1	TIMBER SALES.....	3
3200.2	REFORESTATION.....	4
3200.3	TIMBER STAND IMPROVEMENT.....	4
3200.4	RECREATIONAL DEVELOPMENTS.....	4
3200.5	WILDLIFE PROJECTS.....	4

3000 OBJECTIVE AND POLICY

Objective

To provide a quantifiable means of evaluating progress on both short and long term goals on the Sawyer County Forest.

Policy

Annual accomplishments will be recorded as a historical record, to assist in future planning, and to provide documentation for both the County, and the County Forest system. This information is invaluable in addressing public, County Board, and other legislative inquiries on the operation of the Forest as well as assessing progress on goals.

3100 ANNUAL ACCOMPLISHMENT REPORTS

A copy of an annual accomplishment report shall be prepared and provided to members of the County Board of Supervisors and to official copy-holders of this Plan for inclusion into this chapter.

This report shall include, at a minimum, the following:

1. Timber sale accomplishments including gross and net sale receipts and harvest goals achieved.
2. Timber stand improvements accomplishments.
3. Recreation development and maintenance accomplishments including recreation revenues and expenses.
4. Wildlife management accomplishments including revenues and expenses.
5. Fisheries management accomplishments including revenues and expenses.
6. Other accomplishments identified as "needs" in Chapter 1000.

3200 PAST ACCOMPLISHMENTS

This summary of the Forest activities should provide a running history of accomplishments by activity. It will provide a quick and accessible reference for accomplishments on the County Forest.

Examples of activities to track include timber sales, reforestation, timber stand improvement, recreational developments and wildlife habitat accomplishments.

3200.1 TIMBER SALES

Insert historical record of timber sale activity by year.

Example: _____ Sawyer County Forest Timber Sales

	# of	Sawtimber	Pulpwood		Total Cord	
Year	Sales	MBF	Cords	Acres cut	Equivalents	Sales Value
2001						
2002						
2003						
2004						
2005						
2006						
2007						
2008						
2009						
2010						
2011						

3200.2 REFORESTATION

Insert historical record of reforestation including acres and trees planted by year.

3200.3 TIMBER STAND IMPROVEMENT

Insert historical record of timber stand improvement work including acres treated by practice (release, non-commercial thinning, etc.) and year.

3200.4 RECREATIONAL DEVELOPMENTS

Insert historical record of campsites, trail mileage (ATV, snowmobile, hiking, skiing), boat landings, swimming beaches, etc. by year.

3200.5 WILDLIFE PROJECTS

Insert historical record of wildlife projects conducted annually.

DRAFT

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 4000

INTEGRATED RESOURCE MANAGEMENT UNITS (IRMU)

At this point in time, Sawyer County has not developed Resource Management Units, but the Forestry Committee may direct the development of this Chapter during the period 2006-2015. The following information may serve as a template.

IRMU UNIT AND NUMBER Little Frog Unit 10
UNIT INVENTORY

1. **Compartments:** # 60, 89, 91
County Forest Acreage: 5,037

2. **Predominant Forest Cover Types**

TYPE	EXISTING ACRES	EXISTING %	FUTURE SCHEDULED ACRES	FUTURE %
Aspen	1929	38.3	1788	35.5
Hardwood, Northern	1521	30.2	1662	33.0
Brush, lowland	493	9.8	493	9.8
Hardwood, swamp	269	5.3	277	5.5
Non-commercial	261	5.2	261	5.2
Oak	254	5.0	254	5.0
Spruce, black	201	4.0	201	4.0
Conifer, swamp	41	.8	33	.6
Tamarack	13	.3	13	.3
Fir / spruce	9	.2	9	.2
Grass	7	.1	7	.1
Total	5037	100.0	5037	100.0

3. **Landforms, Geology, Soils**

The landform within this unit is primarily a disintegration moraine. Soils within this complex are made up of sandy and loamy till and loamy soils over outwash on a disintegration moraine. The primary habitat types are AVDe and AA.

4. Land Type Association (LTA)

This unit is associated with several LTA's. They are as follows:

Hayward Moraines (212Jc11): The characteristic landform pattern is rolling, collapsed moraine with swamps common. Soils are predominantly well-drained sandy loam over acid loamy sand till or outwash. Common habitat types include forested lowland, PMV/Pam, and ATM/AAt.

Frog Creek Moraines (212Jc12): The characteristic landform pattern is rolling collapsed moraine with loam over acid loamy sand till. Common habitat types include hydromesic, forested lowland, and AViO.

Smokey Hill Basalt Ridge (212Jc13): The characteristic landform pattern is hilly, bedrock-controlled moraine. Soils are predominantly well-drained sandy loam over acid loamy sand till or igneous/metamorphic bedrock. Common habitat types include ATM, forested lowland, AVVb, and hydromesic.

5. Surface Water Resources 49 acres lakes; 0 acre streams 49 acres; 1.0% of total unit

There are two named lakes within this unit called Rainy Lake and Fish Lake, along with four unnamed lakes.

Fish Lake is an acid bog lake with dark brown water. It's landlocked and is connected to a small, unnamed lake to the east. The fishery is made up of small northern pike and bluegills, with winterkill conditions occurring periodically. The wetlands near the lake provide nesting for puddle ducks. Furbearer use is insignificant due to the bog tamarack lakeshore association. Access is by an unimproved road and walking trail.

Rainy Lake is a softwater seepage lake. It is also landlocked and subject to winterkill conditions. Its present population is limited to panfish and minnows. Hilly uplands and hardwoods surround the lake, except for the fringe of grasses and bulrushes growing along the immediate shoreline. A few puddle ducks nest around the lake and furbearer use is minor.

Both of these lakes have no private ownership and lakeshore development is nonexistent.

Little Frog Creek is a small, low gradient, lightly-stained warm water drainage stream that heads at the outlet of Taylor Lake and flows northeasterly. Along its course, it picks up water from two unnamed tributary streams. Although the stream is not classed a trout water, occasional brook and brown trout may be found in it. Because of the streams small size, wildlife values are limited. However, as beaver activity increases, nesting activity increases with the associated beaver ponds.

Sink Creek is a small, darkly stained warm water drainage stream that flows mainly west in to Little Frog Creek. This stream flows through a number of hardwood swamps and open marshes. Bottom conditions are unstable, consisting of sand and silt mixed with a

little gravel. The only fish production within this stream is limited to minnows of relatively small size. Wildlife values are limited except where beaver activity creates small flowages.

6. *Recreational Uses*

This area is used primarily for hunting, trapping, and hiking, and provides for a backcountry-hunting atmosphere, as access is limited. (Blue zone)

There are two state-funded snowmobile trails that go through this unit, one that goes north to Douglas County, and another east which links Washburn with Sawyer County.

There is presently one cabin permit located within this unit located south of Fish Lake.

There is also a designated rifle range located in section 31.

Highway "77" is an "A" aesthetic zone and is the north boundary of this unit. It is often traveled in the fall to view the fall colors associated with the hardwood species.

7. *Historical, Cultural, Archeological Sites*

Presently, there are no known historical, cultural, or archeological sites located within this unit.

8. *Surrounding Land Use*

Surrounding land use is primarily county forest. Management objectives provide for multiple use concepts of the land, which include timber, recreation, wildlife, and water quality.

9. *Protection Needs*

Access is relatively limited within this unit and provides potential for wolf management.

Most timber harvesting in this unit should be restricted to winter harvest only, to reduce rutting of heavy soils.

10. *Special Use and Management Zones*

Highway "77" is categorized as an "A" aesthetic zone.

Fish and Rainy Lakes are categorized as "B" aesthetic zones.

Management has been tailored to provide for safety around the rifle range in section 31.

This area is designated a blue zone, which is moderately restrictive to motor vehicle traffic. This designation protects the resources, safety, investment, and the primitive nature of the forest.

11. Access, Roads, Firelanes, Trails

Two snowmobile trails traverse this unit. These are authorized trails and access is limited to snowmobiles and ATV's from December 1 to March 31.

12. Land Capabilities (Land Type Association Habitat Classification Types)

The habitat types associated with this unit are primarily AVDe and AA.

The AVDe habitat type is dominated by dry mesic sandy loams and loamy sands which have a medium nutrient status. This type is suitable for even-aged management for most early successional species, for fiber, wildlife, or other purposes. White pine potential is good along with red oak. Sugar maple also appears on these sites, in particular on the high AVDe, along with basswood and ironwood. However, they do not grow as well as on the AA habitats. This habitat offers excellent opportunities for enhancement of vegetation, structure, and diversity. Presumed climax within this habitat includes sugar maple with a component of red maple, red oak, basswood, and white ash. It is not certain whether this habitat type meets the site requirements for successful dominance of sugar maple. No stand has been located within the county that has been dominated by sugar maple within this habitat type. Its dominance is postulated only on the basis of its superior tolerance. Common forest types associated with this habitat include aspen or white birch, aspen-red oak, aspen-pines (red and white), red oak, red oak with white oak, red maple and basswood, white and red pine.

The AA habitat types are dominated by dry mesic to mesic silt loams, loams and sandy loams with a high to medium nutrient status. These sites have a high enough nutrient status that can provide for sugar maple dominance in most current stands. Along with sugar maple, red oak can be present and responds well where canopy opening occur. Presumed climax overstory is sugar maple, basswood, white oak, as, red maple, and red oak. Common forest types include aspen and white birch, aspen-red oak, red oak-white oak, red oak-basswood, sugar maple-red oak, sugar maple-red oak-basswood-ash, white pine.

13. Landscape Management Potential

This unit is a very diverse area in terms of landscape management potential. The types associated here support the highest number of tree species and therefore, the most diverse mixtures of forest types. Growth rates vary for hardwoods from fair to good on the AA sites to poor to medium on the AVDe sites.

It appears some of the best options for oak management are located on the high AVDe and low AA types.

Management associated with the AVDe sites should consider even-aged management versus all-aged management on AA habitats

Management decisions within this area will be heavily influenced by the composition and condition of present stands. The area may be best managed for timber production, along with considerations for wildlife and biodiversity concerns.

14. *Management opportunities*

Maintenance of oak could be a relatively high objective as most of the stands are shifting into the sugar maple seral stage.

Aspen management should also be considered a high priority. The aspen successional stage appears to be unstable with a lack of major disturbances and a species that can be lost relatively easily from these habitat types

White pine and butternut, where found, should be managed on a micro-site basis, maintained and encouraged.

Consider the establishment of osprey platforms associated with Rainy and Fish Lakes.

Presently, there are some relatively large aspen clearcut units that have been cut in the past within sections 27 and 28. Consider managing these units in a large acreage scale for biodiversity needs. Review the unit for potential extended rotation in the aspen type.

The area is heavily used by wood ducks. Consider the establishment of additional wood duck houses.

Potential timber wolf management.

SAWYER COUNTY FOREST COMPREHENSIVE LAND USE PLAN

GLOSSARY OF TERMS

Best Management Practices (BMP's) - BMP's are practical and economically achievable practices for preventing or reducing non-point source pollution. (5)

Biodiversity - The variety and abundance of species, their genetic composition, and the natural communities, ecosystems, and landscapes in which they occur. Biodiversity encompasses the ecological structure, function, and processes that occur in ecosystems to sustain the system as viable entities. (2)

Clearcutting - A silvicultural system in which all merchantable trees are harvested within a specified area in one operation to create an even-aged stand. (5)

Committee - Refers to the Forestry Committee of the Sawyer County Board of Supervisors. The Committee is the supervising authority for the Sawyer County Forest. (2)

Cover type - An area of land characterized by the predominance of one or more key species which make up a dominant percentage of the area. (2)

Cultural Activity - The manipulation of vegetation to meet objectives of controlling stand composition or structure, such as site improvement, forest tree improvement, increased regeneration, increased growth, or measures to control insects and disease. (3)

DNR - Wisconsin Department of Natural Resources.

Ecosystem - A spatially explicit, relatively homogeneous unit of the earth that includes all interacting organisms and components of the abiotic environment within its boundaries - *note*: an ecosystem can be of any size, e.g. a log, pond, field, forest, or the earth's biosphere. (3)

Ecosystem management - Management guided by explicit goals, executed by policies, protocols, and practices, and made adaptable by monitoring and research based on the best understanding of ecological interactions and processes necessary to sustain ecosystem composition, structure, and function over the long term. (3)

Forest compartment - A subdivision of a forest property with easily defined boundaries such as rivers, lakes, and roads. Compartments are established for forest management purposes, most notably forest reconnaissance. They may vary in size from a hundred (100) acres to more than a thousand (1000). (2)

Forest fragmentation - The process by which a landscape is broken into small islands of forest within a mosaic of other forms of land use or ownership. (3)

Forest habitat classification system - The habitat type system is a natural classification system for forest communities and the sites on which they develop. It utilizes systematic interpretation of total flora of a site with emphasis on understory species. A habitat type, as a basic classification unit, is characterized by a distinct combination of species (association) that reflects the ecological sum of the environmental factors operating upon that site. All sites that support (or are capable of supporting) a particular plant association, regardless of how physically different they may appear, are considered to be equivalent and represent the same habitat type. (2)

Forest Reconnaissance (Recon) - A tool where basic resource information is collected and stores, and systematically and continuously updated. The information is utilized as a tool in the assessment of geographical, structural, and compositional attributes of the land resource. The database is used to analyze existing resources, evaluate management alternatives, and assist in the development and implementation of the management plans. (2)

Geographic information system (GIS) - An organized collection of computer hardware, software, geographic and descriptive data, personnel, knowledge, and procedures designed to efficiently capture, store, update, manipulate, analyze, report, and display the forms of geographically referenced information and descriptive information. (3)

Global Positioning System (GPS) - A system of electronic surveying technology utilizing satellites to determine location on the earth.

Habitat - The place, natural or otherwise, (including climate, food, cover, and water) where an animal, plant, or population naturally or normally lives and develops. (3)

Integrated resource management - The simultaneous consideration of ecological, physical, economic, and social impacts of lands, waters, and resources in developing and implementing multiple-use, sustained-yield management. (3)

Integrated pest management (IPM) - The maintenance of destructive agents, including insects at tolerable levels, by the planned use of a variety of preventive, suppressive, or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable. (3)

National Hierarchical Framework of Ecological Units - The National Hierarchical Framework of Ecological Units (NHFEU) is a hierarchical ecological land classification system. Ecological units are identified and identified and differentiated based on unique combinations of physical and biological characteristics, which may include climate, geology, geomorphology, soils, hydrology, or potential natural vegetation. (8)

Old Growth - The (usually) late successional stage of forest development. (3)

Permanent Primary Roads - Roads constructed to State Town Road standards that serve as essential arteries and are located to facilitate multiple use management.

Permanent Secondary Roads - Roads resulting from logging operations that are maintained as needed and primarily for multiple use benefits.

Prescribed burn - To deliberately burn wildland fuels in either their natural or their modified state and under specific environmental conditions, which allows the fire to be confined to a predetermined area and produces the fireline intensity and rate of spread required to attain planned resource management objectives. (3)

RAVE (Reconnaissance ArcView Editor) - A forest stand management application. An ArcView (GIS software) custom extension that allows the user to easily edit forest timber-type areal features (polygons) while at the same time updating tabular records. (1)

Selective harvest - A cutting procedure in which individual trees of all size classes are removed more or less uniformly throughout the stand, to promote growth of remaining trees and to provide space for regeneration. (3)

Shelterwood harvest - A cutting procedure by which a new age class is created. The cutting of most trees, leaving those needed to produce sufficient shade to produce a new age class in a moderated microenvironment. (3)

Silvics - The study of the life history and general characteristics of forest trees and stands, with particular reference to environmental factors, as a basis for the practice of silviculture. (3)

Silviculture - The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis. (3)

Slash - The residue, e.g. treetops and branches, left on the ground after logging or accumulating as a result of storm, fire girdling, or delimiting. (3)

Smart Growth planning - The local comprehensive planning that has been occurring as a result of the legislation enacted in 1999 (s.66.1001, Wis. Stats.). (6) (7)

Sustainable - The yield of a natural resource that can be produced continually at a given intensity of management is said to be sustainable. (4)

Sustainable Forest Management - The practice of meeting the forest resource needs and values of the present without compromising the similar capability of future generations. (3)

Temporary Roads - Roads designed and constructed for short-term use for a specific project after which the roads are naturally or artificially revegetated and closed by berms, bunkers or other physical barriers.

GLOSSARY REFERENCES

1. Cory, Jim. "Maintaining Spatial Data in Enterprise Land Management Environment." *Sustainable Development International*. 2003
<http://www.sustdev.org/journals/edition/03/SC13-11.pdf>
2. *County Forest Comprehensive Land Use Plan. Glossary of Terms*. 1994.
3. Helms, John A., eds. *The Dictionary of Forestry*. Bethesda: Society of American Foresters. 1988.
4. *Hoffman-Sailor West Draft Environmental Impact Statement*. United States Department of Agriculture. 2003. 103-111.
5. Holaday, Steve. *Wisconsin's Forestry Best Management Practices for Water Quality*. Bureau of Forestry. Wisconsin Department of Natural Resources. 1995.
6. Prichard, Teague. "Smart Growth. Comprehensive Land Use Planning Smart Growth for Forest Land Owners." *Forest Tax and Stewardship News*. Madison: Wisconsin Department of Natural Resources. 2002.
7. "Smart Forestry for Smart Growth." Wisconsin Department of Natural Resources Internet. 2003.
8. "Structure of NHFEU." Wisconsin Department of Natural Resources Internet. 2003.
<http://www.dnr.state.wi.us/org/land/forestry/Look/edolandclass/elcstructure.htm>