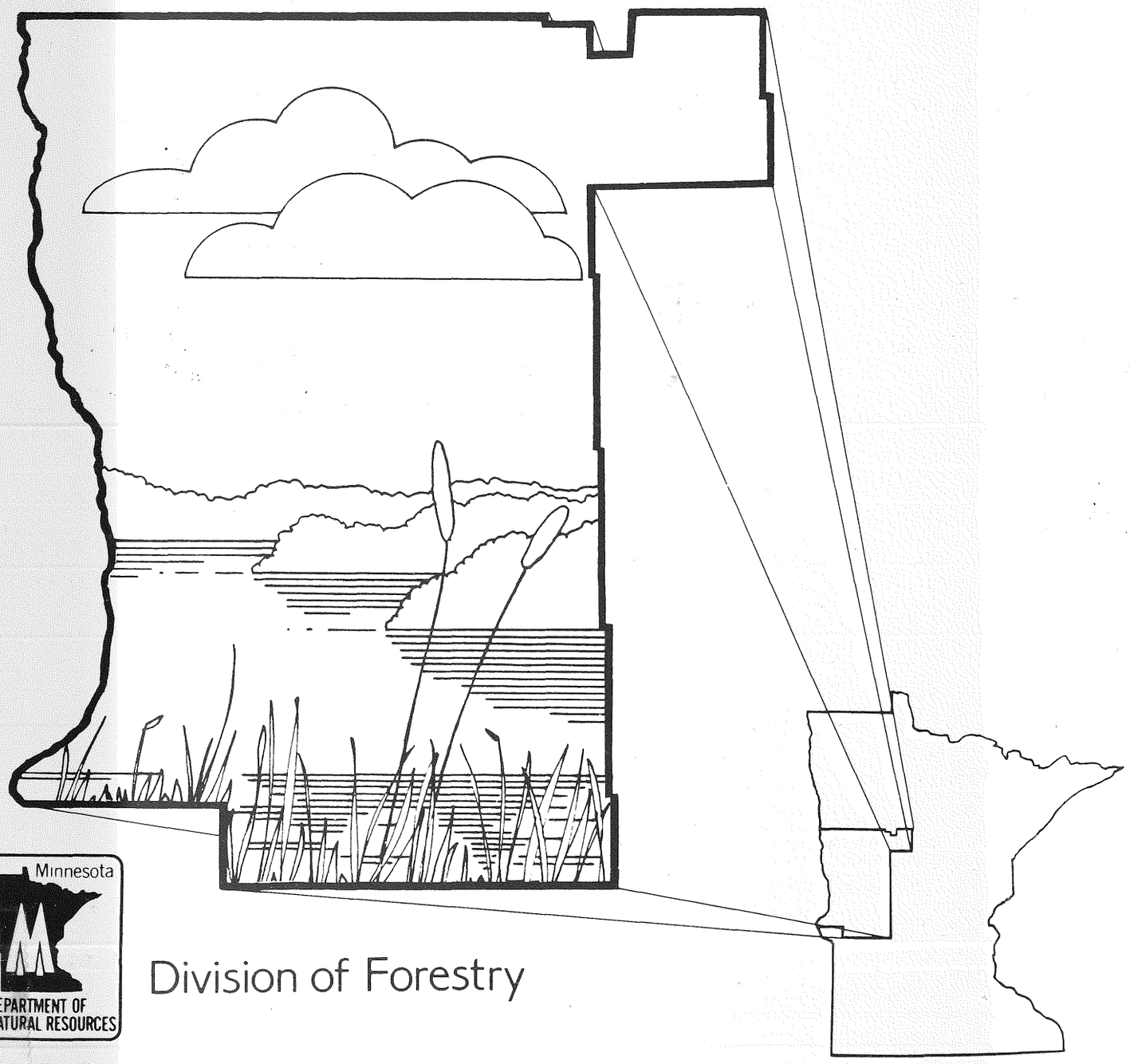
Park Rapids Area
Forest Resource Management Plan
Appendix



Minnesota
DEPARTMENT OF NATURAL RESOURCES

Division of Forestry

Park Rapids Area
Forest Resource Management Plan
Appendices

Wildlife
Land Administration
Soils
Timber Management
Equipment

WILDLIFE

Table 1. Wildlife Species List for the Park Rapids Area[1].

Reptiles and Amphibians

Snapping Turtle
Painted Turtle
Wood Turtle
Prairie Skink
Western Hognose Snake
Eastern Hognose Snake
Smooth Green Snake
Bull Snake
Brown Snake
Redbelly Snake
Plain's Garter Snake
Common Garter Snake
Blue-spotted Salamander
Tiger Salamander
Mud Puppy
Eastern Newt
American Toad
Great Plains Toad
Canadian Toad
Cope's Gray Tree Frog
Spring Peeper
Gray Tree Frog
Striped Chorus Frog
Green Frog
Northern Leopard Frog
Mink Frog
Wood Frog

Mammals

Masked Shrew
Water Shrew
Arctic Shrew
Pygmy Shrew
Short-tailed Shrew
Star-nosed Mole
Little Brown Bat
Silver-haired Bat
Eastern Pippistrelle
Big Brown Bat
Red Bat
Hoary Bat
Eastern Cottontail
Snowshoe Hare
White-tailed Jack Rabbit
Eastern Chipmunk
Least Chipmunk
Woodchuck
Richardson's Ground Squirrel
Thirteen-lined Ground Squirrel
Franklin's Ground Squirrel
Gray Squirrel
Fox Squirrel
Northern Flying Squirrel
Plains Pocket Gopher
Beaver
Prairie Deer Mouse
Woodland Deer Mouse
White-footed Mouse
Northern Grasshopper Mouse
Southern Red-backed Vole
Meadow Vole
Prairie Vole
Muskrat
Southern Bog Lemming
Norway Rat
House Mouse
Meadow Jumping Mouse
Woodland Jumping Mouse
Porcupine
Coyote
Gray Wolf
Red Fox
Gray Fox
Black Bear
Raccoon
Fisher
Short-tailed Weasel
Least Weasel
Long-tailed Weasel
Mink
Badger
Striped Skunk
River Otter
Mountain Lion
Lynx
Bobcat
Mule Deer
White-tailed Deer
Moose

Table 1. Continued.

Common Loon
Pied-billed Grebe
Red-necked Grebe
Eared Grebe
Western Grebe
American White Pelican
Double-crested Cormorant
American Bittern
Least Bittern
Great Blue Heron
Great Egret
Snowy Egret
Little Blue Heron
Cattle Egret
Green-backed Heron
Black-crowned Night-Heron
Yellow-crowned Night-Heron
Tundra Swan
Trumpeter Swan
Greater White-fronted Goose
Snow Goose
Canada Goose
Wood Duck
Green-winged Teal
American Black Duck
Mallard
Northern Pintail
Blue-winged Teal
Cinnamon Teal
Northern Shoveler
Gadwall
Eurasian Wigeon
American Wigeon
Canvasback
Redhead
Ring-necked Duck
Greater Scaup
Lesser Scaup
Common Eider
Oldsquaw
Black Scoter
Surf Scoter
White-winged Scoter
Common goldeneye
Bufflehead
Hooded Merganser
Common Merganser
Red-breasted Merganser
Ruddy Duck
Turkey Vulture
Osprey
American Swallow-tailed Kite
Cooper's Hawk
Northern Goshawk
Red-shouldered Hawk
Broad-winged Hawk
Swainson's Hawk
Red-tailed Hawk
Ferruginous Hawk
Rough-legged Hawk
Golden Eagle
American Kestrel
Merlin
Peregrine Falcon
Gyrfalcon
Prairie Falcon
Gray Partridge
Ring-necked Pheasant
Ruffed Grouse
Greater Prairie-Chicken
Sharp-tailed Grouse
Yellow Rail
King Rail
Virginia Rail
Sora
Common Moornen
American Coot
Sandhill Crane
Black-bellied Plover
Lesser Golden Plover
Semipalmated Plover
Piping Plover
Killdeer
American Avocet
Greater Yellowlegs
Lesser Yellowlegs
Solitary Sandpiper
Willet
Spotted Sandpiper
Upland Sandpiper
Long-billed Curlew
Hudsonian Godwit
Marbled Godwit
Ruddy Turnstone
Red Knot
Sanderling
Semiplamated Sandpiper
Western Sandpiper
Least Sandpiper
White-rumped Sandpiper
Baird's Sandpiper
Pectoral Sandpiper
Dunlin
Stilt Sandpiper

Table 1. Continued.

Black-shouldered Kite	Buff-breasted Sandpiper
Bald Eagle	Short-billed Dowitcher
Sharp-shinned Hawk	Long-billed Dowitcher
Common Snipe	Horned Lark
American Woodcock	Purple Martin
Wilson's Phalarope	Tree Swallow
Red-necked Phalarope	Northern Rough-winged Swallow
Red Phalarope	Bank Swallow
Franklin's Gull	Cliff Swallow
Bonaparte's Gull	Barn Swallow
Ring-billed Gull	Gray Jay
California Gull	Blue Jay
Herring Gull	Clark's Nutcracker
Caspian Tern	Black-billed Magpie
Common Tern	American Crow
Forster's Tern	Common Raven
Black Tern	Black-capped Chickadee
Rock Dove	Boreal Chickadee
Bank-tailed pigeon	Tufted Titmouse
Mourning Dove	Red-breasted Nuthatch
Black-billed Cuckoo	White-breasted Nuthatch
Yellow-billed Cuckoo	Brown Creeper
Common Barn Owl	Rock Wren
Eastern Screech Owl	Carolina Wren
Great Horned Owl	House Wren
Snowy Owl	Winter Wren
Northern Hawk Owl	Sedge Wren
Burrowing Owl	Marsh Wren
Barred Owl	Golden-crowned Kinglet
Great Gray Owl	Ruby-crowned Kinglet
Long-eared Owl	Blue-gray Gnatcatcher
Short-eared Owl	Eastern Bluebird
Boreal Owl	Mountain Bluebird
Northern Saw-whet Owl	Townsend's Solitaire
Common Nighthawk	Veery
Chimney Swift	Gray-cheeked Thrush
Ruby-throated Hummingbird	Swainson's Thrush
Belted Kingfisher	Hermit Thrush
Red-headed Woodpecker	Wood Thrush
Red-bellied Woodpecker	American Robin
Yellow-bellied Sapsucker	Varied Thrush
Down Woodpecker	Gray Catbird
Hairy Woodpecker	Northern Mockingbird
Three-toed Woodpecker	Brown Thrasher
Black-backed Woodpecker	Water Pipit
Northern Flicker	Sprague's Pipit
Pileated Woodpecker	Bohemian Waxwing
Olive-sided Flycatcher	Cedar Waxwing
Eastern Wood Pewee	Northern Shrike
Yellow-bellied flycatcher	Loggerhead Shrike
Alder Flycatcher	European Starling
Willow Flycatcher	Bell's Vireo

Table 1. Continued.

Least Flycatcher
Eastern Phoebe
Say's Phoebe
Vermillion Flycatcher
Great Crested Flycatcher
Western Kingbird
Eastern Kingbird
Scissor-tailed Flycatcher
Nashville Warbler
Northern Parula
Yellow Warbler
Chestnut-sided Warbler
Magnolia Warbler
Cape May Warbler
Black-throated Blue Warbler
Yellow-rumped Warbler
Black-throated Green Warbler
Blackburnian Warbler
Pine Warbler
Palm Warbler
Bay-breasted Warbler
Blackpoll Warbler
Cerulean Warbler
Black-and-white Warbler
American Redstart
Ovenbird
Northern Waterthrush
Kentucky Warbler
Connecticut Warbler
Mourning Warbler
Common Yellowthroat
Wilson's Warbler
Canada Warbler
Yellow-breasted Chat
Summer Tanager
Scarlet Tanager
Western Tanager
Northern Cardinal
Rose-breasted Grosbeak
Lazuli Bunting
Indigo Bunting
Dickcissel
Rufous-sided Towhee
American Tree Sparrow
Chipping Sparrow
Clay-colored Sparrow
Field Sparrow
Vesper Sparrow
Lark Sparrow
Solitary Vireo
Yellow-throated Vireo
Warbling Vireo
Philadelphia Vireo
Red-eyed Vireo
Golden-winged Warbler
Tennessee Warbler
Orange-crowned Warbler
Grasshopper Sparrow
Henslow's Sparrow
Le Conte's Sparrow
Sharp-tailed Sparrow
Fox Sparrow
Song Sparrow
Lincoln's Sparrow
Swamp Sparrow
White-crowned Sparrow
Harris' Sparrow
Dark-eyed Junco
Lapland Longspur
Smith's Longspur
Chestnut-collared Longspur
Snow Bunting
Bobolink
Red-winged Blackbird
Eastern Meadowlark
Western Meadowlark
Yellow-headed Blackbird
Rusty Blackbird
Brewer's Blackbird
Common Grackle
Brown-headed Cowbird
Orchard Oriole
Northern Oriole
Rosy Finch
Pine Grosbeak
Purple Finch
Red Crossbill
White-winged Crossbill
Common Redpoll
Hoary Redpoll
Pine Siskin
American Goldfinch
Evening Grosbeak
House Sparrow
Lark Bunting
Savannah Sparrow
Baird's Sparrow

[1]Taxonomy conforms to Standard Common and Current Scientific Names for North American Amphibians and Reptiles, 2nd edition, J.T.Collins et al., 1982, American Ornithologists' Union Checklist, 1983, and Revised Checklist of North American Mammals North of Mexico, J.K. Jones et al.,1982.

Table 2. Resident Game Species in the Park Rapids Area.

Cottontail	**Ruffed Grouse
Snowshoe	**Woodcock
Jack Rabbit	Sora
Gray Squirrel	Snipe
Fox Squirrel	Canada Goose
Beaver	Mallard
Muskrat	Gadwall
Red Fox	Pintail
Gray Fox	Blue-winged Teal
**Black Bear	Shoveler
Raccoon	**Wood Duck
Fisher	Redhead
Mink	Ring-necked Duck
Badger	Canvasback
Otter	Goldeneye
Bobcat	Ruddy Duck
**White-tailed Deer	Hooded Merganser
Gray Partridge	Coot
Pheasant	

**Most affected by forest management practices.

Table 3. Endangered, Threatened and Special Concern Species in the Park Rapids Forestry Area.

Endangered Species	Location
Baird's Sparrow	Clay
Sprague's Pipit	Clay
Chestnut Collared Longspur	Clay & Traverse
Assiniboia Skipper	Clay
Uhler's Arctic	Mahnomen

Migrant Species Not Requiring Management:

Peregrine Falcon Piping Plover

Threatened Species	Location
**Bald Eagle	Becker,Hubbard, Ottertail
Burrowing Owl	Clay
Loggerhead Shrike	Clay
Dakota Skipper	Clay

Special Concern Species	Location
**Osprey	Hubbar, Becker
**Red Shouldered Hawk	Hubbard, Becker, Ottertail
**Prairie Chicken	Hubbard, Becker, Clay
**Sandhill Crane	Hubbard, Becker, Wilken and Ottertail
American Bittern	Throughout Area
Yellow Rail	Wilkin
Upland Sandpiper	Becker, Clay
Marbled Godwit	Becker, Clay, Wilkin, and Traverse
Henslow's Sparrow	Clay, Wilkin
Snapping Turtle	Throughout Area
Western Hognose Snake	Stevens, Pope, Traverse

Migrant or Occasional Species Not Requiring Management:

Commmon Moorhen Mule Deer
Common Tern Eastern Pipistrelle
Spotted Skunk

**Most affected by forest management practices.

Table 4. Firearms Deer Harvest in the Park Rapids Area, 1981-1984

	Number of Firearms Deer			
	1981	1982	1983	1984
Statewide	93,027	93,045	132,457	132,042
Hubbard	3,573	4,187	5,817	5,811
Becker	2,328	2,928	3,898	4,169
Clay	474	714	1,019	1.430
Ottertail	3,592	4,818	5,335	5,951
Wilkin	153	250	363	524
Grant	303	340	528	622
Douglas	783	932	1.131	1,073
Stevens	175	221	361	319
Pope	950	929	1,264	1,271
Traverse	110	215	289	440
TOTAL	12,441	15,534	20,005	21,610
% of Statewide	13	17	15	16

Table 5. Hunter Days and Hunter Days per Firearms Deer Registered in the Park Rapids Area, 1984

County	# Deer Registered	Hunter Days/kill	Hunter Days
Hubbard	5,811	9.3	54,042
Becker	4,169	9.3	38,771
Clay	1,430	5.4	7,722
Ottertail	5,951	5.1	30,350
Wilkin	524	4.5	2,358
Grant	622	4.5	2,799
Douglas	1,073	5.1	5,472
Stevens	319	4.5	1,435
Pope	1,271	5.1	6,482
Traverse	440	4.5	1.980
TOTAL	21,610	7.0	151,411

Table 6. Small Game Harvest in the Park Rapids Area, and percent of Statewide Harvest, 1981-1983.

	1981	(%)	1982	(%)	1983	(%)
Ruffed Grouse	73,027	(13)	30,167	(10)	11,952	(7)
Woodcock	3,969	(6)	5,149	(10)	236	
Pheasant	44,253	(8)	30,534	(12)	39,471	(13)
Squirrel	46,420	(7)	27,187	(6)	26,645	(8)
Rabbits	32,018	(8)	17,069	(8)	9,534	(7)
Raccoon	10,608	(8)	4,920	(6)	5,980	(7)
Fox	3,546	(9)	2,353	(11)	3,121	(14)
Ducks	236,158	(20)	195,503	(18)	231,076	(19)
Geese	7,655	(9)	11,791	(13)	15,997	(23)

Table 7. Small Game Hunter Days and Number of Trappers in the Park Rapids Area, 1982 and 1983

County	Small Game Hunter Days		No. of Trappers	
	1982	1983	1982	1983
Becker	45,218	44,378	1,071	556
Clay	22,445	15,712	219	354
Hubbard	56,572	22,014	984	404
Ottertail	133,359	120,493	1,662	2,778
Wilken	7,350	2,582	66	177
Grant	22,904	33,553	131	354
Douglas	43,512	49,914	765	354
Stevens	24,742	27,099	0	25
Pope	33,668	20,191	219	429
Traverse	4,659	849	0	0
TOTAL	394,429	336,785	5,117	5,431

Table 8. Trapping Harvest and Percentage of Statewide Harvest Occurring in the Park Rapids Area, 1981-1983.

TRAPPING HARVEST

	1981	1982	1983
Muskrat	102,856	35,378	89,083
Mink	8,968	5,620	8,636
Racoon	7,416	4,155	5,884
Red Fox	8,056	6,363	6,996
Beaver	4,002	4,514	8,887

PERCENTAGE OF STATEWIDE TRAPPING HARVEST OCCURRING IN THE PARK RAPIDS AREA

	1981	1982	1983	Average
Muskrat	10	6	16	11
Mink	12	10	15	12
Raccoon	10	7	9	9
Red Fox	15	16	17	16
Beaver	9	13	8	10
Otter	9	8	8	8

Ten to fifteen percent of the statewide trapping harvest occurs in the Park Rapids Area.

RARE AND ENDANGERED FAUNA

WILDLIFE

Staff haven't conducted systematic inventories of most nongame resources within the Park Rapids Forest Unit Plan Area. Four faunal groups, however, have been rather extensively studied; bald eagles, prairie chickens, colonial waterbirds, and endangered species associated with native grassland habitats. The status and reproductive activity of all known eagle territories is monitored by the U.S. Fish & Wildlife Service annually and a summary of their data is provided to the Department for entry into the Heritage data base. Management plans for all eagle nesting areas are prepared by nongame staff, and extensive locality information is on file at the Regional Nongame office. Data on prairie chickens has been provided by the Minnesota Prairie Chicken Society and entered into the data base; these records, however, have not been recently updated. The Nongame Wildlife Program periodically monitors nesting sites of colonial birds throughout the state and maintains accurate and current data on all active and inactive sites. Finally, with respect to prairie fauna, the Scientific & Natural Areas Program, Natural Heritage Program and Nongame Wildlife Program have cooperated with the Nature Conservancy for several years to inventory fauna on selected prairie preserves. Many of Minnesota's rare & endangered wildlife species are found on publically & privately owned prairie tracts within the Park Rapids area. These programs also have cooperated on projects designed specifically to assess the status and distribution of those prairie species that are classified as Endangered or Threatened in Minnesota.

Apart from these efforts, considerably less attention has been placed on species occupying forested habitats in the Park Rapids Area. Incidental observations, of species concern, have been solicited and submitted by field staff in the Deparment of Natural Resources, U.S. Fish & Wildlife Service, U.S. Forest Service, and private groups. When adequately documented, all such records have been entered into the Natural Heritage database. Very few forest species in this area, however, are state-listed.

The information that follows is based upon all the data resources mentioned above and upon the staff's assessment of what may occur in the area. Species associated with forest habitats are discussed first, followed by species associated with grassland habitats. Although colonial waterbirds span a variety of habitats, they are included with the forest species.

FOREST SPECIES

Osprey

The osprey is officially listed as a species of Special Concern in Minnesota. Sensitivity to DDT contamination was the principal reason for its decline in the 1950's and 1960's. Recent data from both the Superior and Chippewa National Forests indicate that, overall, ospreys are on the increase state-wide. The average number of young produced per nest, however, is still

below that needed to maintain a stable population. More detail regarding the osprey's status and distribution (Table 9.) is provided.

Twenty-three nest sites are known from within the Park Rapids Area. Information in the Natural Heritage database, however, was only from incidental observations (some submitted several years ago); a systematic inventory has not been conducted. When more field work is completed, additional nests may be discovered in forested portions of the area.

Table 9. Location of Osprey Nests

	Location	Date of Information
1.	Paul Bunyan State Forest - NWNW Section 16 T142N-R32W	1977
2.	Hubbard County - between Bad Axe and Buck Lakes, Section 23 T142N-R34W	1980
3.	Hubbard County - Power Line Tower No. 2287, Section 36 T139-R35W	1980
4.	Crow Wing Chain WMA - Power Line Tower No. 2346, NE Section 32 T139N-R33W	1980
5.	Badoura State Forest - Power Line Tower No. 2373, SENW Section 36 T139N-R33W	1981
6.	Crow Wing Chain WMA - N 1/2 Section 33 T139N-R33W (2 nests)	1984
7.	Hubbard County - NW Section 31 T139-R33W	1984
8.	Hubbard County - NW Section 32 T139-R33W (3 nests)	1984
9.	Becker County, Tamarac NWR - Section 20 T140N-R39W (inactive 1986-87)	1984
10.	Tamarac NWR - Lost Lake Trail, NESE Section 21, T141N-R39W	1987
11.	Tamarac NWR - Little Egg Lake, Section 34, T142N-R39W	1987
12.	Becker County - Section 29, T142N-R38W	1987
13.	Becker County - Section 29, T141N-R38W	1987
14.	Becker County - Section 3, T139N-R39W	1987
15.	Becker County - Section 18, T139N-R39W	1987
16.	Becker County - Section 7, T138N-R38W	1987
17.	Becker County - Section 13/14, T138N-R40W	1987
18.	Becker County - Section 19, T138N-R40W	1987
19.	Becker County - Section 25, T138N-R41W	1987
20.	Hubbard County - Section 14, T142N-R32W	1987

Table 9. Cont.

21.	Hubbard County - Section 13, T142N-R32W	1987
22.	Hubbard County - Section 8, T141N-R32W	1987
23.	Hubbard County - Section 16, T141-R33W	1987

Bald Eagle

The Bald Eagle is officially classified as both a State Threatened and Federally Threatened species. Like the osprey discussed earlier, recent data indicates that the Bald Eagle is on the increase statewide. In the past few years new territories have been established in some portions of the state from which eagles have been absent since the turn of the century.

Nongame files and the Natural Heritage database contain data on all known Bald Eagle territories in the Park Rapids Area (Table 10.). Some of these data are made available by the U.S. Fish and Wildlife Service. In past years staff in their Bemidji office are responsible for annually monitoring the activity and reproductive success of each known territory. The Nongame staff in Bemidji maintains locality and reproductivity information in their files. At present, 21 territories have been delineated in the area. These territories that are currently inactive should still be considered to provide essential habitat and should be protected accordingly.

Management plans are being written by Nongame Program staff for all eagle territories. This will allow for protection of all eagle nesting areas and will enhance communications between landowners and wildlife biologists. Protection measures include "buffer zones", retaining overstory pines for their future nesting potential and habitat management/ timber harvest restrictions during critical times.

Management restrictions as outlined in the Forestry-Wildlife guidelines to Habitat Management should be strictly followed. Habitat alterations of any type are prohibited in the 0-5 chain zone. Thinning, opening maintenance and pruning is allowed in the 5-10 chain zone between October 1 - February 14. Seasonal restrictions also do apply in the 10 - 20 chain zone, where habitat alterations are permitted only between October 1 - February 14.

Table 10. Location of eagle nests in Park Rapids area.

1. Becker County - Tamarac NWR - Section 12, T140N-R40W - Flat Lake Nest. One nest occurs in the section; young have been produced each year since 1974.

2. Becker County - Tamarac NWR - Section 34, T142N-R39W - SW Little Egg nest. Two nests* occur in the section; young have been produced 1981-1985. The next was unsuccessful in 1986 and nesting did not occur in 1987.

3. Becker County - Tamarac NWR - Section 14, T141N-R39W. Wauboose Lake nest. Nest has produced young since 1979.

4. Becker County - Tamarac NWR - Section 24, T140N-R40W. North Tamarac Lake nest. This nest was discovered in November 1985; young were produced in 1986 and 1987.

5. Becker County - Tamarac NWR - Section 35, T142N-R39W - NE Little Egg nest. Young were produced from 1980-1982 and 1984 through 1987.

6. Becker County - Tamarac NWR - Section 36, T142N-R39W - Mallard Lake nest. Territory includes one nest which produced young in 1981, 1982, 1984-1987.

7. Becker County - Tamarac NWR - Section 11, T140N-R39W. Booth Lake nest. Territory includes one nest which produced young in 1981, 1982 and from 1984-1987.

8. Becker County - Tamarac TWR - Section 16, T140N-R39W - Blackbird/Johnson Lake nest. Territory includes two nests which produced young 1981, 1984, 1986 and 1987.

9. Becker County - Tamarac NWR - Section 25, T141N-R39W - Teacracker Lake nest. Territory includes one nest which produced young in 1982 and from 1984-1986. 1987 attempt unsuccessful.

10. Becker County - Section 10, T141N-R39W - Big Egg Lake nest. This territory was discovered during spring 1987 and produced young in 1987.

11. Becker County - Section 36, T142N-R36W - Cedar Lake. Active 1983, 1985-87.

12. Becker County - Section 17, T140N-R38W - Mud Lake

13. Becker County - Section 8, T141N-R38W - Round Lake. This territory includes one nest which produced young in 1983 and 1984.

14. Becker County - Tamarac NWR - Section 19, T141N-R39W - Little Flat Lake nest. Young were produced in 1984, 1986 and 1987.

Table 10. continued

15. Ottertail County - Section 23, T136N-R38W - Big Pine Lake. New in 1986.

16. Ottertail County - Section 5, T137N-R40W. Territory includes one nest active since 1980.

17. Hubbard County - Section 31, T139N-R34W. Territory includes two nests in the section; one has produced young since 1982.

18. Hubbard County - Paul Bunyan State Forest - Section 31, T142N-R33W. Territory includes one nest which produced young in 1983 and 1984.

19. Hubbard County - Section 14, T141N-R33W - East Crooked Lake

20. Hubbard County - Section 2, T140N-R35W - Fish Hook Lake (2 nests) Active in 1985-87.

21. Hubbard County - Bladder Lake - Section 23, T139N-R32W. Territory includes two nests which produced young in 1983, but failed in 1984. New nest had 1 in 1986.

*A bald eagle territory typically includes more than one nest; in any given year, however, only one nest may be used.

Red-shouldered Hawk

Special concern (state). This bird was never common in Minnesota, but has declined in numbers throughout the northern part of its range since the 1940's. Timber harvest and destruction of bottomland habitat has caused the replacement of the red-shouldered by the more aggressive red-tailed hawk. This species has recently been found breeding in Hubbard, Becker and Otter Tail counties.

Preferred nesting habitat for this species appears to be moist lowland woods and river bottoms.

At present, four active territories have been recorded for the Park Rapids area. The potential of locating additional nests in forested habitats in Hubbard and eastern Becker counties is good. These four active nests have been found in the last three years:

Becker County - sections 2, 3, 10 & 11 T139N-R37W, and sections 33,34 & 35 T140N-R37W.

Colonial Nesting Waterbirds

A total of 41 colonial waterbird nesting sites have been reported from within the Park Rapids Administration Area (Table 11.). As is the case throughout western Minnesota, these colonies support a wide diversity of waterbird species including herons, grebes, egrets and cormorants. Twenty-one of the colonies are known to be active and 20 are confirmed inactive. Information on the location and size of inactive sites are kept on the Heritage data files on the premise that they indicate potentially suitable habitat that could be reoccupied. At present, none of the active sites support populations of state listed species.

Great Blue Herons, Black-crowned Night Herons, Common Egrets and Snowy Egrets are often found nesting in colonies together. Double-crested Cormorants nest in a variety of situations. Eared Grebes, Western Grebes, Horned Grebes, Forester's Terns and Red-necked Grebes nest in shallow marshes and lakes. Common Terns are found nesting on rocky islands. Franklin's Gulls nest in marshy situations also.

Management recommendations include continued census and survey activities. There should be a good line of communication between the nongame specialist and district and area forestry personnel. When new colonies are found by forestry personnel, they should be reported to Nongame. Also, Nongame should inform forestry of all nesting locations.

Table 11. Colonial Bird nesting sites in the Park Rapids Area.

Active/ Inactive	Colony #	County	Colony Name	Land Ownership	Location (Sec.,Twp,Rge)	Species
I	195	Becker	Big Cormorant Lake	No Info.	NE13 T138N-R43W	Double-crested cormorant, great blue heron
A	251	Becker	Boyer Lake	BLM	W½NW7 T139N-R42W	Double-crested cormorant
I	373	Becker	Buffalo River	No Info.	SWNE23 T140N-R40W	Great blue heron
I	114	Becker	Cotton Lake #2	DNR/Wildlife	SW02 T139N-R40W	Common tern
A	382	Becker	Co. Rd. Junction	USFWS	NESW07 T140N-R39W	Great blue heron
A	284	Becker	Fish Lake	Private/E.J.Kruger	NWSW15 T138N-R42W	Great blue heron
I	368	Becker	Pine Lake	USFWS	SENW20 T140N-R39W	Great blue heron, eared grebe, horned grebe
A	216	Becker	Sand Lake	J.&M.Rian	SWNW07 T139N-R43W	Double-crested cormorant
I	056	Becker	Shelley Island/ Cotton Lake	DNR/Wildlife	2T 139N-R40W	Great blue heron, common tern
A	369	Becker	Tamarac Lake	USFWS	NWNW25 T140N-R40W	Eared grebe, horned grebe, forster's tern
I	118	Clay	Doran Lake	No Info.	NESE25 T139N-R45W	Western grebe
I	207	Clay	Felton-Ulen	No Info.	SWSE36 T142N-R45W	Franklin's gull
I	223	Clay	Moe Lake	No Info.	SENE11 T139N-R44W	Great blue heron
A	009	Douglas	Lake Christina	No Info.	N18 T130N-R40W	Western grebe, forester's tern

Table 11. Continued.

Active/ Inactive	Colony #	County	Colony Name	Land Ownership	Location (Sec.,Twp,Rge)	Species
A	010	Grant	Egret Island	TNC	SESW23 T130N-R41W	Black-crowned night heron, double-crested cormorant, great blue heron, little blue heron,common egret, great egret
I	011	Grant	Pelican Lake	No Info.	N26 T130N-R41W	Western grebe, forester's tern, snowy egret, white pelican
A	008	Hubbard	Kabekonka Lake	DNR/Wildlife	NE25 T143N-R33W	Great blue heron
A	072	Hubbard	Long Lake #1	Century Land Co.	SWSE29 T140N-R34W	Great blue heron
A	359	Mahnomen	South Twin Lake	No Info.	SESE31 T143N-R39W	Great blue heron
A	068	Otter Tail	Chataqua Lake	BLM	NENE24 T132N-R43W	Double-crested cormorant, western grebe
A	115	Otter Tail	Dead Lake	No Info.	S29 T135N-R40W	Great blue heron, great egret
I	217	Otter Tail	Fossan Lake	No Info.	ESE35 T132N-R42W	Great blue heron, great egret
I	012	Otter Tail	Franklin Lake	Private	NWSE27 T137N-R42W	Great blue heron
A	483	Otter Tail	Johnson Lake	No Info.	NE11 T133N-R44W	Western grebe
I	119	Otter Tail	Orwell Reservoir	DNR/Wildlife	SESW25 T132N-R44W	Western grebe

Table 11. Continued.

Active/ Inactive	Colony #	County	Colony Name	Land Ownership	Location (Sec.,Twp,Rge)	Species
I	067	Otter Tail	Ottertail Slough	No Info.	SESW31 T134N-R40W	Forester's tern
I	116	Otter Tail	Star Lake	No Info.	ENW10 T135N-R41W	Great blue heron
I	066	Otter Tail	Ten Mile Lake	No Info.	ENE33 T131N-R42W	Great blue heron
A	318	Otter Tail	Upper Lightning Lake	No Info.	SSW25 T131N-R44W	Western grebe, eared grebe, red-necked grebe
A	546	Pope	Lake Cyrus	No Info.	SWSW30 T125N-R40W	Eared grebe
A	117	Pope	Lake Johanna	BLM	SWNE17 T123N-R36W	Double-crested cormorant, great blue heron, little blue heron, common egret, great egret
A	237	Pope	Lake Minnewaska	NA	NA	Forester's tern
A	106	Pope	Lake Reno	No Info.	W11 T 126N-R38W	Western grebe, forester's tern
A	120	Stevens	Charlotte Lake	No Info.	NESW24 T125N-R41N	Western grebe
A	121	Stevens	Clear Lake	No Info.	SWSW9 T124N-R43W	Forester's tern, eared grebe
A	238	Stevens	Crystal Lake	Game refuge (private)	NESW03 T124N-R42W	Western grebe, forester's tern
I	151	Stevens	Gorder Lake	No Info.	SW26 T124N-R43W	Eared grebe, western grebe
A	239	Stevens	Harlstad Slough	Private	Center 30 T126N-R42W	Western grebe, eared grebe
I	174	Stevens	Pomme de Terre	L.Bruns & D.Woodke	NWSW17 T126N-R41W	Great blue heron
A	531	Traverse	Mud Lake	No Info.	Point of 16&20 T127N-R47W	Eared grebe
A	344	Otter Tail	Wall Lake	No Info.	SWSW34 T133N-R42W	Red-necked grebe

Table 11. Continued.

Active/ Inactive	Colony #	County	Colony Name	Land Ownership	Location (Sec.,Twp,Rge)	Species
A	161	Traverse	Lake Traverse	No Info.	SW20 T127N-R47W	Western grebe, Franklin's gull
A	013	Wilken	Breckenridge Sewage Lagoons	Breckenridge Sewage	NE26 T133N-R47W	Eared grebe

GRASSLAND SPECIES.

Because grassland species are not the focus of the unit plan, they are treated briefly. The Natural Heritage Program has assembled locality information for each of the listed species. Those listed below are found within the Park Rapids area.

Burrowing Owl

Threatened (state). This rare species has nested sporadically on the ridge prairies of western Minnesota. It is often associated with Franklin ground squirrel colonies.

There were recent breeding records (sinc 1975) in Traverse, Clay and Stevens Counties (1 each), and a summer sighting from Pope County in 1981.

Any site which includes heavily grazed pasture and ground squirrel colonies should be protected as owl habitat.

1. Clay NWSE 27 T137N-R46W 1980

Sprague's Pipit

Endangered (state). The one known breeding site for this species is located on the Felton Prairie, in Clay County. This areas is privately owned, but is within the Park Rapids area.

This bird is restricted to fragmented prairie habitat. Mixed-grass upland prairie is preferred, particularly ungrazed, or lightly grazed tracts.

It is important to begin protection efforts in the Felton Prairie areas. Survey and inventory work needs to be done to document the distribution of this species.

1. Clay 5 T141N-R45W 1979 (nesting not confirmed since 1962)

Piping Plover

Endangered (state) and potentially listed as endangered (federally). This bird is present only as a migrant in the Park Rapids area. Specific management is not necessary for this species in this area.

Baird's Sparrow

Endangered (state). The Baird's sparrow is also a prairie bird. It is found only as a breeding bird on Felton Prairie, in Clay County. This bird prefers dry native prairie or grassland, with fairly long grass.

Management should include preservation of suitable prairie habitat by acquisition, and management of prairie habitat by prescribed burning. Survey and inventory needs to be done to document the distribution of this species.

1. Clay 5 T141N-R45W 1978 (nesting not confirmed)

Chestnut-collared Longspur

Endangered (state). This prairie bird is also found breeding in Clay County. The breeding site is the Glacial Lake Agassiz beach ridge east and south of Felton, Minnesota. Longspur's prefer grazed or hayed prairie, mowed hayfields or short grass prairie.

The emphasis should be on habitat protection through acquisition and proper management.

Inventory should also be a priority for assessing the distribution of this species.

1. Traverse NE33 T127N-R45W 1980
2. Clay 5 T141N-R45W 1984
3. Clay 13, 24 T141N-R46W 1978

Prairie Vole

Special concern (state). This small mammal was once distributed widely over the Great Plains. The prairie vole is uncommon in Minnesota, due to destruction of it's habitat: native prairie.

Prairie voles have been collected in Clay, and Stevens County, within the Park Rapids area. It is found in undisturbed prairie sites.

Management recommendations include population monitoring, and preservation of all state-owned prairie tracts. Prairie tracts should be left undisturbed.

1. Clay SW 5 T141N-R45W 1979
2. Stevens 33 T125N-R24W 1969
3. Stevens 36 T125N-R42W 1975
4. Stevens NWNW 2 T124N-R42W 1979

American White Pelican

Special concern (state). The pelican disappeared from Minnesota as a nesting species for 50 years. A colony reappeared on Marsh Lake in the 1970's, where 500 pairs nest. In addition, 50 pairs nest on Crowduck Island in Lake of the Woods.

Within the Park Rapids area, white pelicans are present only as non-breeders or migrants. They roost on islands in many of the larger lakes.

No management is recommended at this time, other than continued monitoring.

Greater Prairie Chicken

Special concern (state). The greater prairie chicken is found nesting in grassland and prairie habitats. Short cover is used for courtship, dense nesting cover during the breeding season. Open shrubby habitats which have been disturbed by grazing or burning are used during summer, and croplands are used during fall and winter.

During pre-settlement times, prairie chickens only occurred in southern Minnesota, but they followed settlement northward. By 1982, prairie chickens had again been reduced to two small zones in western and central Minnesota.

Within the Park Rapids area, prairie chickens are found in Mahnomen, Clay, Wilkin, Otter Tail, Becker counties and a separate sub-population occurs in southern Hubbard County.

Booming ground locations are listed in Table 12.

Sandhill Crane

Special concern (state). Sandhill cranes breed in shallow wetlands and marshes that are isolated from human disturbance. Cranes nest in northwest and east central Minnesota. Their populations are currently on an increase following declines in the 1930's-1960's.

Within the Park Rapids area, cranes nest in Mahnomen, northern Becker and southern Hubbard counties. During breeding, preferred habitat is the lowland brush community.

The Twin Lakes TNC tract is very important to cranes during spring migration, as is the entire glacial Lake Agassiz beach ridge. During fall, there is a major stopover site near Borup, also on old beach ridge sites.

Management recommendations for this species includes preservation of nesting habitat. Crane habitat should not be planted or converted to trees.

Henslow's Sparrow

Special concern (state). The Henslow's sparrow was formerly widespread in the southern part of the state, although uncommon. It has recently been found only in Winona, Wilkin and Clay counties.

This bird prefers uncultivated grasslands, wet meadows and overgrown fields. No specific management is recommended for this species.

1. Clay 23 T139N-R46W 1980
2. Clay SW 11 T140N-R45W 1980

Table 12. Prairie Chicken booming grounds in the Park Rapids Area.

Wilkin	NE 25 T136N-R46W	1976
Wilkin	SW 34 T136N-R46W	1976
Wilkin	SE&SW 35 T136N-R46W	1978
Wilkin	SW 10 T136N-R45W	1976
Wilkin	NW&SW 17 T136N-R45W	1978
Wilkin	NE&SE 1 T135N-R46W	1977
Wilkin	NW 12 T135N-R46W	1978
Wilkin	NW 9 T135N-R45W	1976
Wilkin	SW 16 T135N-R45W	1978
Wilkin	NW&SE 17 T135N-R45W	1976
Wilkin	SW 20 T135N-R45W	1977
Wilkin	SW&NW 21 T135N-R45W	1978
Wilkin	NW 28 T135N-R45W	1976
Wilkin	SE 33 T135N-R45W	1978
Wilken	SW 9 T134N-R45W	1978
Wilkin	NW 16 T134N-R45W	1976
Wilkin	NE 27 T134N-R45W	1978
Wilkin	NW&SW 12 T133N-R45W	1978
Wilkin	SE 33 T134N-R45W	1977
Wilkin	SE 8 T135N-R45W	1978
Wilkin	SE&NE 5 T135N-R45W	1978
Wilkin	SE 4 T135N-R45W	1978
Wilkin	NE 3 T135N-R46W	1978
Clay	NE&SE 25 T142N-R46W	1978
Clay	NW&SW 20 T142N-R45W	1978
Clay	SW 36 T142N-R45W	1976
Clay	SW 20 T142N-R44W	1976
Clay	NW 4 T141N-R45W	1978
Clay	NE 1 T141N-R46W	1976
Clay	NW&SE 9 T141N-R45W	1978
Clay	NW 20 T141N-R45W	1976
Clay	NW&SE 23 T141N-R46W	1978
Clay	SE 3 T140N-R46W	1976
Clay	SE&NW 15 T140N-R46W	1977
Clay	SE 22 T140N-R46W	1976
Clay	NE 34 T140N-R46W	1978
Clay	NW 20 T140N-R45W	1976
Clay	SE 9 T139N-R46W	1976
Clay	SW 23 T139N-R46W	1976
Clay	SW 4 T138N-R45W	1976
Clay	SW 5 T138N-R45W	1977
Clay	SW&NE 22 T138N-R45W	1978
Clay	NE 25 T138N-R45W	1976
Clay	NE&NW 33 T138N-R45W	1978
Clay	SW&NW 18 T137N-R44W	1978
Clay	SE 26 T137N-R45W	1976
Clay	SW 12 T137N-R45W	1976
Clay	NW 29 T142N-R44W	1977
Clay	SE 14 T141N-R46W	1977
Clay	NW 24 T141N-R46W	1978
Clay	SW 7 T138N-R45W	1977
Clay	SW 15 T138N-R45W	1978
Clay	SW&NW 27 T138N-R45W	1978
Clay	SE 4 T137N-R45W	1978
Clay	SE 6 T138N-R45W	1978
Clay	NW 9 T138N-R45W	1978
Clay	SW 32 T139N-R45W	1978
Clay	NW 6 T141N-R45W	1978
Clay	NW 27 T139N-R46W	1978
Clay	SE 27 T140N-R46W	1978
Clay	NE 25 T141N-R46W	1978
Mahnomen	SE 27 T143N-R42W	1978
Mahnomen	SW 35 T143N-R42W	1978
Mahnomen	SW 26 T143N-R42W	1977
Mahnomen	SE 28 T143N-R42W	1977
Becker	NE 36 T142N-R43W	1978
Ottertail	SW 28 T133N-R44W	1977
Ottertail	NW 28 T131N-R44W	1977
Ottertail	NW 17 T131N-R44W	1978
Ottertail	NE 5 T132N-R44W	1978

Sharp-tailed Sparrow

Special concern (state). This bird is thought to be a rare and locally-occurring species limited to the northwest and north central portions of the state.

It's status is difficult to determine because of its inaccessible breeding habitat, inconspicuous song, and nocturnal singing habits.

Within the Park Rapids area, this species is thought to occur in Hubbard, Mahnomen, Clay, Becker, Wilkin and Ottertail counties.

Preferred habitat consists of peatlands and prairie marshes with water levels of a few inches.

Management recommendations are not included.

Wilson's Phalarope

Special concern (state). Nesting has not been well documented for this species. Many summer observations may only be of migrants.

Preferred habitat includes wetlands and shallow ponds and lakes. Nests are found in wet meadow zones of wetlands.

Within the Park Rapids area, phalaropes have only found to be positively nesting in Mahnomen county. However, suspected breeding range includes all of the counties within the Park Rapids area.

Management recommendations: wetlands should not be drained or filled; slash should not be placed in wetlands.

1. Wilkin 15 T134N-R45W 1980
2. Wilkin 9 T134N-R45W 1980
3. Pope 30 T123N-R37W 1980

Marbled Godwit

Special concern (state). This species was widespread in the 1800's but has declined due to loss of it's breeding habitat, native grasslands.

Within the Park Rapids area, godwits nest in Mahnomen, Becker, Clay and Wilkin counties, and probably nest in Stevens and Grant counties as well.

The godwits feed along the edge of semi-permanent and seasonal wetlands. Their breeding habitat consists of short upland grassland or cropland stubble adjacent to wetlands.

Management recommendations include the preservation of prairie tracts. Grasslands and native prairie should not be planted to trees.

1. Clay NE 5 T141N-R45W 1979
2. Wilkin 26 T133N-R47W 1980
3. Traverse NE 33 T147N-R45W 1980
4. Wilkin 15 T134N-R45W 1980
5. Clay NW 27 T138N-R46W 1982
6. Mahnomen 21, 28 T143N-R42W 1978

Yellow Rail

Special concern (state). Documented nesting occurs in only a few counties in Minnesota. Yellow rails nest in the northern half of the state.

Preferred habitat includes sedge meadows and grassy marshes.

Within the Park Rapids area, a possible nesting site for this species is southern Mahnomen and northern Becker counties.

Recommendations: all prairie marshes should be preserved from drainage, grazing, plowing and haying.

1. Wilkin 9 T134N-R45W 1980
2. Mahnomen 35 T143N-R42W 1973

Loggerhead Shrike

Threatened (state). This species is found throughout the Park Rapids area. It is primarily a bird of the open country and dry upland prairie, where hedge rows, shrubs and small trees occur.

The loggerhead shrike has suffered drastic decline throughout it's range within the past 10 - 15 years.

No active management is suggested for this species, although shelter belt and hedge row prairie habitat should be preserved whenever possible.

1. Clay 10 T139N-R46W 1976

Forster's Tern

Special concern (state). Less than 20 nesting sites are known for this species in the state. It is not currently an abundant marshland nester as was the case 40 years ago.

Within the Park Rapids area, this species is thought to occur in Hubbard, Mahnomen, Clay, Becker, Wilkin and Otter Tail counties.

Preferred habitat consists of peatlands and prairie marshes with water levels of a few inches.

Within the Park Rapids area, there are 8 forster's tern colonies. One is located on Tamarc Lake (USFWS), one on Lake Christina, one on Pelican Lake (Grant Co.), one on Ottertail Slough, one one Lake Minnewaska (Pope Co.), one on Lake Reno (Pope Co.), one on Clear Lake (Stevens Co.) and one on Crystal Lake (Stevens Co.). (See Table 3).

These colonies are located in shallow wetlands and lakes. Preferred nesting habitat is large marshes with extensive areas of emergent vegetation.

Management suggestions include preservation of all nesting colonies, and additional inventory efforts.

Common Tern

Special concern (state). The number of common terns in the midwest has declined to the point where this species is considered "endangered" in many adjacent states. Poor reproductive success may be associated with increasing numbers of gulls which prey on nests.

Terns nest on rocky islands in large lakes, within the Park Rapids area they are only migrants.
Continued monitoring is suggested.

Short-eared Owl

Special concern (state). This bird was common in the early 1900's. Now it is uncommon, mostly nesting in northwestern Minnesota. Preferred nesting habitat is native grasslands, marshes, open peatlands and grain fields.

Documented nesting within the Park Rapids area has occurred in Wilkin, Traverse, Hubbard and Grant counties.

Management recommendations include more complete inventories and protection of native grasslands.

Assiniboia Skipper

Endangered (state). Only one colony of this rare butterfly has been found in Minnesota, at Clay County Bicentennial prairie. Other sightings have been noted in Clay County.

1. Clay SW 5 T141N-R45W 1980

Dakota Skipper

Threatened (state). This species has been recorded from Norman, Ottertail, Stevens and Pope counties. A healthy colony is located on Clay County Bicentennial Prairie.

1. Clay NE 5 T141N-R45W 1979
2. Clay SW T141N-R45W 1979

Uhler's Arctic

Endangered (state). This butterfly is also found at Clay County Bicentennial Prairie. A sighting is reported from Mahnomen County.

1. Clay T141N-R45W
2. Mahnomen SW 5 T141N-R45W 1982

American Bittern

Special concern (state). Bitterns have recently been absent from suitable habitat in Minnesota.

This species nests in cattail, bulrush, sedge marshes, and bogs throughout the Park Rapids area.

Preservation of wetland habitat is recommended in order to preserve this species.

Eastern Spotted Skunk

Special concern (state). The spotted skunk was once commonly trapped throughout Minnesota. In recent years it's numbers have apparently decreased greatly, particularly in the northern part of the state.

The preferred habitat of the spotted skunk is open mushy areas often associated with farm yards.

No specific management for this species is suggested within the Park Rapids area.

Upland Sandpiper

Special concern (state). This species has declined in abundance in Minnesota. It is absent over much of its eastern range. Destruction of its breeding habitat: grasslands is thought to be cause for its decline.

Within the Park Rapids area, upland sandpipers have been found breeding in Clay, Becker and Mahnomen counties.

Preferred habitats include large blocks of grasslands. Short or non-dense grassland habitat is usually selected.

Management recommendations include preserving short grass prairie and grasslands. These habitats should not be converted or planted to trees.

Snapping Turtle

Special concern (state). This species has a wide distribution throughout the state. It is found in most of the Park Rapids area.

The effect of harvest is unknown at this time. Substantial unregulated harvests may be causing over-trapping and population decrease.

Snapping turtles occur in almost all aquatic habitats. They prefer slow moving water, with muddy substrate and dense vegetation.

Population monitoring is suggested.

Western Hognose Snake

Special concern (state). This snake is threatened by loss of its prairie habitat to agriculture. It is also vulnerable to collecting by the pet trade.

Within the Park Rapids area, hognose snakes are found in Stevens, Pope, and Traverse counties. They prefer sand-gravel upland sites, and general preferences include grassland, prairie, and mixed forest-prairie habitats.

Native prairie preservation and management and protection is suggested as a management technique.

King Rail

Special concern (state). The population of the king rail is very low in Minnesota, and documented nesting occurs in only a few counties. It's potential range includes the southern half of the state.

No positive nesting of this species has occurred in the Park Rapids area, although it has been seen there.

Attempts should be made to verify the population and distribution in the state.

Eastern Pipistrelle

Special concern (state). Little is known of the eastern pipistrelle's distribution in the state. Recent studies by Birney and Northquist have shown this bat to be more prevalent than thought previously. Although most occurrences are in southeastern Minnesota, there have been records from Traverse County.

No management recommendations are made at this time, as there are no winter hibernacula caves identified within the Park Rapids area.

Mule Deer

Special concern (state). This species has been sighted sporadically throughout the state; Minnesota is the eastern limit of its range.

Within the Park Rapids area, mule deer have been sighted in Becker, Otter Tail, Wilkin and Grant counties.

Mule deer prefer brushy wooded areas.

No specific management recommendations can be made at this time.

Lake Sturgeon

Special concern (state). This species is the only "special concern" fish found in the Park Rapids area. The sturgeon was once very common throughout the state. It is found in the Hudson Bay drainage as well as the Mississippi and Great Lakes drainages. It is a long-lived species, requiring almost 20 years to reach sexual maturity. Heavy fishing caused drastic decreases in the population.

This species prefers moderately clear rivers and lakes with firm sandy, gravel or rubble bottoms.

Common Moorhen

Special concern (state). In recent years the gallinule has become a rare breeder in the southern half of the state.

The moorhen prefers cattail-bulrush marshes with patches of phragmites, carex and sparganium.

No specific management recommendations are suggested for this species.

LAND ADMINISTRATION

PARK RAPIDS LAND ADMINISTRATION
PROPOSALS BY RESOURCE MANAGEMENT UNIT

RMU 1

ADMINISTRATIVE AND SCATTERED STATE FOREST

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	14	142	45W	32	NWSW	B	21	40.00	sand and gravel
164	14	142	45W	32	SWNW	B	21	40.00	sand and gravel
164	14	142	45W	32	SWSW	B	21	40.00	snad and gravel
3 PARCELS					TOTAL 120.00 ACRES				

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF WILDLIFE

165	03	141	42W	15	NWNE	C	21	40.00
165	03	141	42W	28	NESW	C	21	40.00
165	03	142	42W	01	01	C	21	39.92
165	03	142	42W	03	SESE	C	21	40.00
165	03	142	42W	10	NWNE	C	21	40.00
165	03	142	42W	10	SENE	C	21	40.00
165	03	142	42W	10	SWNE	C	21	40.00
165	03	142	42W	11	NWNW	C	21	40.00
164	14	137	45W	12	NENE	C	21	40.00
164	14	137	45W	12	NESE	C	21	40.00
164	14	137	45W	12	NWNE	C	21	40.00
164	14	137	45W	12	SENE	C	21	40.00
164	14	137	45W	12	SESE	C	21	40.00
164	14	137	45W	12	SWNE	C	21	40.00
164	14	137	45W	24	NENE	C	21	40.00
164	14	141	46W	36	SWSW	A	21	40.00
164	14	142	46W	36	NENE	A	21	40.00
164	14	142	46W	36	NWNE	P	21	40.00
164	14	142	46W	36	SENE	A	21	40.00
164	14	142	46W	36	SWNE	A	21	40.00
162	78	126	47W	36	NESW	A	21	40.00
21 PARCELS					TOTAL 839.92 ACRES			

STATE LAND TO BE SOLD AT PUBLIC AUCTION

163	56	132	43W	02	SENW	P	21	20.26
1 PARCELS					TOTAL 20.26 ACRES			

RMU 2

ADMINISTRATIVE AND SCATTERED STATE FOREST

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
163	56	133	43W	36	07	A	21	0.71	
163	56	133	43W	36	08	A	21	0.71	
163	56	135	43W	36	NENE	A	21	40.00	
163	56	135	43W	36	NWNE	A	21	40.00	
163	56	135	43W	36	SENE	A	21	40.00	
163	56	135	43W	36	SWNE	A	21	40.00	
163	56	135	42W	36	01	A	21	39.75	
163	56	135	42W	36	02	A	21	27.00	
163	56	135	42W	36	06	A	21	28.00	
163	56	135	42W	36	07	A	21	17.00	
163	56	135	42W	36	08	A	21	13.50	
163	56	135	42W	36	NENW	A	21	40.00	
163	56	135	42W	36	NWSE	A	21	40.00	
163	56	135	40W	27	06	B	21	10.85	
163	56	135	41W	10	02	B	21	5.50	
163	56	135	41W	10	03	B	21	12.60	
165	03	141	40W	07	SESE	C	21	40.00	non-ferrous minera
17 PARCELS					TOTAL 435.62 ACRES				

EXCHANGE STATE LAND WITH COUNTY

165	03	141	41W	12	NESE	C	21	40.00	heritage elements
165	03	142	41W	25	SESE	C	21	40.00	heritage elements
2 PARCELS					TOTAL 80.00 ACRES				

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF WILDLIFE

164	03	140	41W	16	NWNW	A	21	40.00
165	03	141	41W	05	NWSW	C	21	40.00
165	03	141	41W	05	SWNW	C	21	40.00
165	03	141	41W	06	03	C	21	41.20
165	03	141	41W	06	NESE	C	21	40.00
165	03	141	41W	06	NESW	C	21	40.00
165	03	141	41W	06	NWSE	C	21	40.00
165	03	141	41W	06	SENW	C	21	40.00
165	03	141	41W	06	SESW	C	21	40.00
165	03	141	41W	06	SWSE	C	21	21.50
165	03	142	41W	30	02	C	21	48.54
165	03	142	41W	30	SENW	C	21	40.00
164	03	139	43W	23	08	B	21	10.22

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	14	137	44W	06	04	C	21	38.66	
164	14	137	44W	06	05	P	21	38.88	
162	21	128	36W	36	SESE	A	21	40.00	
163	56	131	38W	36	05	A	21	43.90	
17 PARCELS						TOTAL		642.90 ACRES	

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF FISHERIES

162	21	128	38W	16	NENW	A	21	40.00	
162	21	128	38W	16	SWNW	P	21	40.00	
164	03	138	42W	08	03	B	21	0.20	
163	56	131	40W	16	NWNW	A	21	40.00	
162	21	129	38W	36	NENW	A	21	40.00	
163	56	133	42W	02	NESE	D	21	40.00	
163	56	133	42W	02	NESW	D	21	40.00	
163	56	133	42W	02	NWSE	D	21	40.00	
163	56	133	42W	02	SESE	D	21	40.00	
163	56	133	42W	02	SESW	D	21	40.00	
163	56	133	42W	02	SWSE	D	21	40.00	
163	56	133	42W	02	SWSW	D	21	40.00	
163	56	132	40W	29	NWSW	B	21	40.00	
13 PARCELS						TOTAL		480.20 ACRES	

TRANSFER ADMINISTRATIVE CONTROL TO DIVISION OF PARKS

163	56	135	41W	18	13	A	21	9.00	
1 PARCEL						TOTAL		9.00 ACRES	

RMU 3

ADMINISTRATIVE AND SCATTERED STATE FOREST

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
163	56	132	39W	36	NENW	A	21	40.00	
163	56	132	39W	36	NWNE	A	21	40.00	
163	56	132	39W	36	NWNW	A	21	40.00	
164	03	138	41W	36	NENE	A	21	40.00	
164	03	138	41W	36	NESE	A	21	40.00	
164	03	138	41W	36	NESW	A	21	40.00	
164	03	138	41W	36	NWNE	A	21	40.00	
164	03	138	41W	36	NWSE	A	21	40.00	
164	03	138	41W	36	NWSW	A	21	40.00	
164	03	138	41W	36	SENE	A	21	40.00	
164	03	138	41W	36	SESE	A	21	40.00	
164	03	138	41W	36	SESW	A	21	40.00	
164	03	138	41W	36	SWNE	A	21	40.00	
164	03	138	41W	36	SWSE	A	21	40.00	
164	03	138	41W	36	SWSW	A	21	40.00	
15 PARCELS					TOTAL 600.00 ACRES				

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF WILDLIFE

162	61	124	37W	16	SWNE	A	21	40.00	
162	61	124	39W	26	NWNE	B	21	40.00	
162	61	125	37W	36	NESE	A	21	40.00	
162	61	125	37W	36	NWSE	A	21	40.00	
162	61	125	37W	36	SWSE	A	21	40.00	
162	61	125	38W	16	08	A	21	0.21	
163	56	134	39W	34	NESW	G	21	40.00	
163	56	134	39W	34	NWSE	D	21	40.00	
163	56	134	39W	34	SESE	D	21	40.00	
163	56	134	39W	34	SESW	D	21	40.00	
163	56	134	39W	34	SWSE	D	21	40.00	
163	56	137	39W	12	NWNE	C	21	40.00	
163	56	137	40W	14	07	C	21	37.70	
163	56	137	43W	10	SENE	C	21	40.00	
163	56	137	43W	10	SWNE	C	21	40.00	
164	03	138	42W	36	SWNW	A	21	40.00	
16 PARCELS					TOTAL 597.91 ACRES				

TRANSFER ADMINISTRATIVE CONTROL TO
DIVISION OF PARKS

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
162	61	124	39W	24	02	B	21	35.25	
1 PARCEL						TOTAL		35.25 ACRES	

TRANSFER ADMINISTRATIVE CONTROL TO
SECTION OF FISHERIES

163	56	134	41W	36	08	A	21	2.75
163	56	136	40W	16	14	A	21	1.30
163	56	136	40W	16	15	A	21	1.03
163	56	136	41W	02	07	B	21	1.40
163	56	136	41W	02	10	B	21	2.65
5 PARCELS						TOTAL		9.13 ACRES

RMU 4

ADMINISTRATIVE AND SCATTERED STATE FOREST

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
163	56	131	37W	36	SWNE	A	21	40.00	
163	56	132	38W	16	NESE	A	21	40.00	
163	56	132	38W	16	SENE	A	21	40.00	
163	56	133	38W	02	NESW	D	21	40.00	
163	56	133	38W	02	NWNW	D	21	39.78	
163	56	133	38W	02	SENW	D	21	40.00	
163	56	133	38W	02	SWNW	D	21	40.00	
163	56	133	38W	36	NENE	A	21	40.00	
163	56	133	38W	36	NWSW	A	21	40.00	
163	56	133	38W	36	SWNW	A	21	40.00	
163	56	133	38W	36	SWSW	A	21	40.00	
164	03	138	37W	36	NENE	A	21	40.00	
164	03	138	37W	36	NESW	A	21	40.00	
164	03	138	37W	36	NWNE	A	21	40.00	
164	03	138	37W	36	NWSW	A	21	40.00	
164	03	138	37W	36	SENE	A	21	40.00	
164	03	138	37W	36	SENW	A	21	40.00	
164	03	138	37W	36	SESW	A	21	40.00	
164	03	138	37W	36	SWNE	A	21	40.00	
164	03	138	37W	36	SWNW	A	21	40.00	
164	03	138	37W	36	SWSW	A	21	40.00	
164	03	138	38W	36	NENE	A	21	40.00	
164	03	138	38W	36	NENW	A	21	40.00	
164	03	138	38W	36	NESE	A	21	40.00	
164	03	138	38W	36	NESW	A	21	40.00	
164	03	138	38W	36	NWNE	A	21	40.00	
164	03	138	38W	36	NWNW	A	21	40.00	
164	03	138	38W	36	NWSE	A	21	40.00	
164	03	138	38W	36	NWSW	A	21	40.00	
164	03	138	38W	36	SENE	A	21	40.00	
164	03	138	38W	36	SENW	A	21	40.00	
164	03	138	38W	36	SESE	A	21	40.00	
164	03	138	38W	36	SESW	A	21	40.00	
164	03	138	38W	36	SWNE	A	21	40.00	
164	03	138	38W	36	SWNW	A	21	40.00	
164	03	138	38W	36	SWSE	A	21	40.00	
164	03	138	38W	36	SWSW	A	21	40.00	
164	03	138	39W	04	NESE	C	21	40.00	non-ferrous minera
164	03	138	39W	34	SESW	C	21	40.00	sand and gravel
164	03	138	39W	34	SWSW	C	21	40.00	sand and gravel

40 PARCELS TOTAL 1,599.78 ACRES

EXCHANGE STATE LAND WITH COUNTY

164	03	138	39W	18	01	C	21	38.96
164	03	138	39W	18	02	C	21	38.41

2 PARCELS TOTAL 77.37 ACRES

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF WILDLIFE

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
163	56	131	36W	16	03	A	21	32.70	
163	56	131	36W	16	06	A	21	48.05	
163	56	133	37W	36	NENW	A	21	40.00	
163	56	133	37W	36	NESE	A	21	40.00	
163	56	133	37W	36	NESW	A	21	40.00	
163	56	133	37W	36	NWNW	A	21	40.00	
163	56	133	37W	36	NWSE	A	21	40.00	
163	56	133	37W	36	NWSW	A	21	40.00	
163	56	133	37W	36	SENE	A	21	40.00	
163	56	133	37W	36	SENW	A	21	40.00	
163	56	133	37W	36	SESE	A	21	40.00	
163	56	133	37W	36	SESW	A	21	40.00	
163	56	133	37W	36	SWNE	A	21	40.00	
163	56	133	37W	36	SWNW	A	21	40.00	
163	56	133	37W	36	SWSE	A	21	40.00	
163	56	133	37W	36	SWSW	A	21	40.00	
163	56	137	37W	04	NESE	C	21	40.00	
163	56	137	37W	04	SENE	C	21	40.00	
163	56	137	37W	06	04	B	21	43.03	
163	56	137	37W	06	05	B	21	43.08	
164	03	138	39W	10	NESE	C	21	40.00	
164	03	138	39W	10	SESE	C	21	40.00	
164	03	138	39W	10	SWSE	C	21	40.00	
164	03	138	39W	24	SWSW	C	21	40.00	

24 PARCELS TOTAL 966.86 ACRES

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF FISHERIES

164	03	138	38W	04	NESE	C	21	40.00	
164	03	138	38W	24	SENE	C	21	40.00	

2 PARCELS TOTAL 80.00 ACRES

ACQUIRE COUNTY LAND OUTSIDE COUNTY FOREST-PRIORITY 2

164	03	138	36W	18	04	M	71	38.94	
164	03	138	36W	19	03	M	71	38.92	
164	03	138	36W	19	04	M	71	38.93	
164	03	138	36W	31	01	M	71	38.90	
164	03	138	36W	31	02	M	71	38.90	

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	03	138	37W	18	02	M	71	40.58	
164	03	138	37W	27	NESE	M	71	40.00	
164	03	138	37W	27	NESW	M	71	40.00	
164	03	138	37W	27	SESE	M	71	40.00	
164	03	138	37W	27	SESW	M	71	40.00	
164	03	138	37W	27	SWSE	M	71	40.00	
164	03	138	37W	27	SWSW	M	71	40.00	
164	03	138	37W	28	NENE	M	71	40.00	
164	03	138	37W	28	NWNE	M	71	40.00	
164	03	138	37W	28	SENE	M	71	40.00	
164	03	138	37W	28	SENW	M	71	40.00	
164	03	138	37W	28	SWNE	M	71	40.00	
164	03	138	37W	33	NENE	M	71	40.00	
164	03	138	37W	33	NWNE	M	71	40.00	
164	03	138	37W	33	SENE	M	71	40.00	
164	03	138	37W	33	SWNE	M	71	40.00	
164	03	138	37W	34	NENW	M	71	40.00	
164	03	138	37W	34	NWNW	M	71	40.00	
164	03	138	37W	34	SENW	M	71	40.00	
164	03	138	37W	34	SWNW	M	71	40.00	
164	03	138	37W	35	NENW	M	71	40.00	
164	03	138	37W	35	NWNW	M	71	40.00	
164	03	138	37W	35	SWNW	M	71	40.00	
164	03	138	39W	10	NESW	M	71	40.00	
29 PARCELS					TOTAL			1,155.17 ACRES	

RMU 5

ADMINISTRATIVE AND SCATTERED STATE FOREST

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
161	29	139	33W	34	NWSW	C	21	40.00	
161	29	139	34W	30	NWNE	C	21	40.00	
161	29	139	34W	30	NWSE	C	21	40.00	
161	29	139	34W	30	SWNE	C	21	40.00	
161	29	139	34W	30	SWNW	C	21	34.87	
161	29	139	34W	36	01	A	21	24.40	
161	29	139	34W	36	02	A	21	47.46	
161	29	139	34W	36	NWSE	A	21	40.00	
161	29	139	35W	06	NESE	C	21	40.00	
161	29	139	35W	14	SENE	C	21	40.00	
161	29	139	35W	36	NENE	A	21	40.00	
161	29	139	35W	36	NENW	A	21	40.00	
161	29	139	35W	36	NWNE	A	21	40.00	
161	29	139	35W	36	NWNW	A	21	40.00	
161	29	139	35W	36	NWSE	A	21	40.00	
161	29	139	35W	36	SENE	A	21	40.00	
161	29	139	35W	36	SENW	A	21	40.00	
161	29	139	35W	36	SWNE	A	21	40.00	
161	29	139	35W	36	SWSE	A	21	40.00	
164	03	139	36W	24	SESE	B	21	40.00	
161	29	140	32W	16	NWSE	A	21	40.00	
161	29	140	32W	16	SENW	A	21	40.00	
161	29	140	32W	16	SWNW	A	21	40.00	
161	29	140	32W	16	NENW	A	21	40.00	
161	29	140	32W	16	NESE	A	21	40.00	
161	29	140	32W	16	NWNW	A	21	40.00	
161	29	140	33W	05	10	B	21	0.03	
161	29	140	33W	06	02	B	21	0.60	
161	29	140	33W	16	01	A	21	28.50	
161	29	140	33W	16	NESE	A	21	40.00	
161	29	140	33W	16	SENE	A	21	40.00	
161	29	140	33W	34	NESW	C	21	40.00	
161	29	140	33W	34	SESW	C	21	40.00	
161	29	140	35W	36	SWSE	A	21	40.00	sand and gravel
164	03	140	36W	16	NESW	A	21	40.00	sand and gravel
164	03	140	36W	16	NWSW	A	21	40.00	sand and gravel
164	03	140	36W	36	SESW	A	21	40.00	
164	03	140	36W	36	SWSE	A	21	40.00	
161	29	141	33W	27	04	B	21	0.10	
161	29	141	33W	36	01	A	21	0.01	
161	29	141	33W	36	02	A	21	4.60	
161	29	141	33W	36	NESW	A	21	4.80	
161	29	141	33W	36	NWSW	A	21	1.00	
161	29	141	33W	36	SENE	A	21	5.24	
161	29	141	33W	36	SWSW	A	21	2.50	
161	29	141	34W	36	02	A	21	8.65	
161	29	141	34W	36	03	A	21	50.25	
161	29	141	34W	36	05	A	21	2.90	
161	29	141	34W	36	SESW	A	21	40.00	
161	29	141	34W	36	SWSE	A	21	40.00	
164	03	141	37W	32	03	C	21	18.45	non-ferrous mineral

51 PARCELS TOTAL 1,593.82 ACRES

EXCHANGE STATE LAND WITH COUNTY

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
161	29	139	35W	20	SESW	C	21	40.00	deer yard
161	29	139	35W	34	NESE	C	21	40.00	deer yard
161	29	139	35W	34	SESE	C	21	40.00	deer yard
161	29	140	32W	12	SWSW	C	21	40.00	wetlands
161	29	140	33W	26	NESW	C	21	40.00	wetlands
161	29	140	33W	26	SWNW	C	21	40.00	wetlands
161	29	140	33W	26	SWSW	C	21	40.00	wetlands
161	29	140	35W	36	NENW	A	21	40.00	protected water
161	29	141	35W	16	NESE	A	21	40.00	
161	29	141	35W	16	NESW	A	21	40.00	
161	29	141	35W	16	NWSE	A	21	40.00	
161	29	141	35W	16	NWSW	A	21	40.00	
161	29	141	35W	16	SENE	A	21	40.00	
161	29	141	35W	16	SENW	A	21	40.00	protected water
161	29	141	35W	16	SESE	A	21	40.00	
161	29	141	35W	16	SESW	A	21	40.00	
161	29	141	35W	16	SWNE	A	21	40.00	
161	29	141	35W	16	SWNW	A	21	40.00	protected water
161	29	141	35W	16	SWSE	A	21	40.00	
161	29	141	35W	16	SWSW	A	21	40.00	

20 PARCELS TOTAL 800.00 ACRES

EXCHANGE STATE LAND WITH PRIVATE

161	29	139	35W	20	SESE	C	21	40.00	

1 PARCELS TOTAL 40.00 ACRES

EXCHANGE STATE LAND WITH PRIVATE INDUSTRIAL

161	29	140	32W	16	NENW	C	21	40.00	
161	29	140	32W	16	NWNW	C	21	40.00	
161	29	140	32W	16	SWNW	C	21	40.00	
161	29	140	32W	16	SENW	C	21	40.00	
161	29	140	32W	16	NESE	C	21	40.00	
161	29	140	32W	16	NWSE	C	21	40.00	

6 PARCELS TOTAL 240.00 ACRES

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF WILDLIFE

161	29	139	33W	04	01	C	21	35.99	
161	29	139	33W	26	NWNE	C	21	40.00	
161	29	139	35W	34	SWNW	C	21	40.00	

3 PARCELS TOTAL 115.99 ACRES

TRANSFER ADMINISTRATIVE CONTROL TO
SECTIN OF FISHERIES

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
161	29	140	33W	30	NESE	C	21	40.00	
164	03	140	36W	28	SWSW	C	21	40.00	
2 PARCELS						TOTAL		80.00 ACRES	

ACQUIRE COUNTY LAND INSIDE COUNTY
FOREST-PRIORITY 2

164	03	139	36W	14	NENE	M	70	40.00
164	03	139	36W	14	NWNE	M	70	40.00
164	03	139	36W	14	SENE	M	70	40.00
164	03	139	36W	14	SWNE	M	70	40.00
164	03	139	36W	21	NWSE	M	70	40.00
164	03	139	36W	21	SENE	M	70	40.00
164	03	139	36W	21	SWNE	P	70	40.00
164	03	139	36W	22	NENW	M	70	40.00
164	03	139	36W	22	NWNW	M	70	40.00
164	03	139	36W	22	SENW	M	70	40.00
164	03	139	36W	22	SWNW	M	70	40.00
164	03	139	36W	23	NENW	M	70	40.00
164	03	139	36W	23	NESE	M	70	40.00
164	03	139	36W	23	NWNE	M	70	40.00
164	03	139	36W	23	NWNW	M	70	40.00
164	03	139	36W	23	NWSE	M	70	40.00
164	03	139	36W	23	SENW	M	70	40.00
164	03	139	36W	23	SESE	M	70	40.00
164	03	139	36W	23	SESW	M	70	40.00
164	03	139	36W	23	SWNE	M	70	40.00
164	03	139	36W	23	SWNW	M	70	40.00
164	03	139	36W	23	SWSE	M	70	40.00
164	03	139	36W	23	SWSW	M	70	40.00
164	03	139	36W	26	NENE	M	70	40.00
164	03	140	36W	05	02	M	70	35.47
164	03	140	36W	05	04	M	70	35.25
164	03	140	36W	05	SENW	M	70	40.00
164	03	140	36W	05	SWNE	M	70	40.00
164	03	140	36W	05	SWNW	M	70	40.00
164	03	140	36W	06	04	M	70	32.06

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	03	140	36W	06	05	M	70	33.30	
164	03	140	36W	06	NESE	M	70	40.00	
164	03	140	36W	06	SESE	M	70	40.00	
164	03	140	36W	06	SESW	M	70	40.00	
164	03	140	36W	07	NESE	M	70	40.00	
164	03	140	36W	08	NENW	M	70	40.00	
164	03	140	36W	08	NWNW	M	70	40.00	
164	03	140	36W	08	SENW	M	70	40.00	
164	03	140	36W	08	SWNW	M	70	40.00	
39 PARCELS					TOTAL 1,536.08 ACRES				

ACQUIRE COUNTY LAND OUTSIDE COUNTY FOREST-PRIORITY 2

164	03	139	36W	01	01	M	71	39.71	
164	03	139	36W	01	02	M	71	39.74	
164	03	139	36W	10	NENW	M	71	40.00	
164	03	139	36W	15	SENE	P	71	34.00	
164	03	139	36W	25	NWNW	M	71	40.00	
5 PARCELS					TOTAL 193.45 ACRES				

RMU 6

ADMINISTRATIVE AND SCATTERED STATE FOREST

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	03	138	40W	16	02	A	21	35.70	
164	03	139	37W	08	NWNE	C	21	40.00	
164	03	139	37W	30	06	B	21	39.20	
164	03	139	37W	36	NWNE	A	21	40.00	
164	03	139	37W	36	NWNW	A	21	40.00	
164	03	139	38W	06	NESW	B	21	40.00	
164	03	139	40W	16	03	A	21	39.35	
164	03	139	40W	16	NENE	A	21	40.00	
164	03	139	40W	16	NENW	A	21	40.00	
164	03	139	40W	16	NESE	A	21	40.00	
164	03	139	40W	16	NESW	A	21	40.00	
164	03	139	40W	16	NWNE	A	21	40.00	
164	03	139	40W	16	NWNW	A	21	40.00	
164	03	139	40W	16	NWSE	A	21	40.00	
164	03	139	40W	16	NWSW	A	21	40.00	
164	03	139	40W	16	SENE	A	21	40.00	
164	03	139	40W	16	SENW	A	21	40.00	
164	03	139	40W	16	SESE	A	21	40.00	
164	03	139	40W	16	SWNE	A	21	40.00	
164	03	139	40W	16	SWNW	A	21	40.00	
164	03	139	40W	16	SWSE	A	21	40.00	
164	03	139	40W	16	SWSW	A	21	40.00	
164	03	139	40W	36	NENW	A	21	40.00	
164	03	139	40W	36	NESE	A	21	40.00	
164	03	139	40W	36	NWSE	A	21	40.00	
164	03	139	40W	36	SENW	A	21	40.00	
164	03	139	40W	36	SESE	A	21	40.00	
164	03	139	40W	36	SESW	A	21	40.00	
164	03	139	40W	36	SWNE	A	21	40.00	
164	03	139	40W	36	SWSW	A	21	40.00	
164	03	140	38W	36	NESE	A	21	40.00	
114	03	142	36W	07	SESE	B	21	40.00	
114	03	142	36W	10	NWSW	B	21	40.00	
114	03	142	36W	12	NESW	C	21	40.00	
114	03	142	36W	12	NWSE	C	21	40.00	
114	03	142	36W	12	SESW	C	21	40.00	
114	03	142	36W	12	SWSE	C	21	40.00	
114	03	142	36W	12	SWSW	B	21	40.00	
114	03	142	36W	16	NENE	A	21	40.00	
114	03	142	36W	16	NENW	A	21	40.00	
114	03	142	36W	16	NESE	A	21	40.00	
114	03	142	36W	16	NESW	A	21	40.00	
114	03	142	36W	16	NWNW	A	21	40.00	
114	03	142	36W	16	NWSE	A	21	40.00	
114	03	142	36W	16	NWSW	A	21	40.00	
114	03	142	36W	16	SENE	A	21	40.00	
114	03	142	36W	16	SENW	A	21	40.00	
114	03	142	36W	16	SESE	A	21	40.00	

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
114	03	142	36W	16	SESW	A	21	40.00	
114	03	142	36W	16	SWNE	A	21	40.00	
114	03	142	36W	16	SWNW	A	21	40.00	
114	03	142	36W	16	SWSE	A	21	40.00	
114	03	142	36W	16	SWSW	A	21	40.00	
114	03	142	36W	18	01	C	21	40.14	
114	03	142	36W	18	NENW	C	21	40.00	
114	03	142	36W	18	NWNE	B	21	40.00	
114	03	142	36W	18	SWNE	B	21	40.00	
114	03	142	36W	20	NESE	B	21	40.00	
114	03	142	36W	21	NWNE	B	21	40.00	
114	03	142	36W	21	SWSW	B	21	40.00	
114	03	142	36W	24	NESW	C	21	40.00	
114	03	142	36W	24	NWNW	C	21	40.00	
114	03	142	36W	24	SWNW	C	21	40.00	
114	03	142	36W	26	NWSE	B	21	40.00	
164	03	140	38W	16	01	A	21	16.75	
164	03	140	38W	16	NWNW	A	21	40.00	
164	03	140	38W	16	NWSW	A	21	40.00	
164	03	140	38W	16	SENW	A	21	40.00	
164	03	140	38W	16	SESW	A	21	40.00	
164	03	140	38W	16	SWNW	A	21	40.00	
164	03	140	38W	16	SWSW	A	21	40.00	
164	03	140	38W	18	05	B	21	17.40	
164	03	140	38W	18	06	B	21	25.60	
164	03	140	38W	18	07	B	21	43.93	
164	03	140	38W	18	08	B	21	37.65	
164	03	140	38W	18	09	B	21	7.70	
164	03	140	38W	18	NENW	B	21	40.00	
164	03	140	38W	24	02	B	21	13.00	
164	03	140	38W	36	01	A	21	9.20	
164	03	139	39W	12	NENW	C	21	40.00	
164	03	139	39W	36	NENE	A	21	40.00	sand and gravel
164	03	139	39W	36	NENW	A	21	40.00	sand and gravel
164	03	139	39W	36	NWNE	A	21	40.00	sand and gravel
164	03	140	39W	24	02	B	21	36.50	
164	03	140	39W	24	NWNE	B	21	40.00	
164	03	140	39W	25	NESW	C	21	40.00	
164	03	140	39W	25	NWSW	C	21	40.00	
164	03	140	39W	25	SWSW	C	21	40.00	
164	03	140	39W	26	04	B	21	34.05	
164	03	140	39W	26	NESE	B	21	40.00	
164	03	140	39W	26	NESW	B	21	40.00	
164	03	140	39W	26	NWSE	B	21	40.00	
164	03	140	39W	26	SENE	B	21	40.00	
164	03	140	39W	26	SWNE	B	21	40.00	
164	03	140	39W	35	NENE	A	21	40.00	
164	03	140	39W	35	SENE	A	21	40.00	
164	03	140	39W	35	SWNE	A	21	40.00	
164	03	140	39W	36	NENE	A	21	40.00	
164	03	140	39W	36	NENW	A	21	40.00	
164	03	140	39W	36	NESW	A	21	40.00	
164	03	140	39W	36	NWNE	A	21	40.00	

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	03	140	39W	36	NWNW	A	21	40.00	
164	03	140	39W	36	NWSE	A	21	40.00	
164	03	140	39W	36	SENW	A	21	40.00	
164	03	140	39W	36	SWNE	A	21	40.00	
164	03	140	39W	36	SWNW	A	21	40.00	
164	03	140	39W	36	SWSE	A	21	40.00	
164	03	140	40W	16	02	A	21	50.25	
164	03	141	38W	24	01	C	21	6.00	
164	03	141	38W	29	SWSE	C	21	40.00	
164	03	141	38W	30	NWNE	C	21	40.00	
165	03	141	39W	07	NESE	C	21	40.00	
165	03	141	39W	08	SWNW	C	21	40.00	
165	03	141	39W	30	05	C	21	50.09	
165	03	141	40W	23	01	C	21	38.85	non-ferrous minera
165	03	141	40W	23	02	C	21	17.25	non-ferrous minera
165	03	141	40W	23	NESE	C	21	40.00	non-ferrous minera
165	03	141	40W	23	SENE	C	21	40.00	non-ferrous minera
165	03	142	39W	17	SWSE	C	21	40.00	non-ferrous minera
165	03	142	39W	17	SWSW	C	21	40.00	non-ferrous minera
165	03	142	39W	17	SESW	C	21	40.00	non-ferrous minera
165	03	142	39W	18	02	C	21	40.50	non-ferrous minera
165	03	142	39W	18	NENE	C	21	40.00	non-ferrous minera
165	03	142	39W	19	01	C	21	43.50	non-ferrous minera
165	03	142	39W	19	NENE	C	21	40.00	non-ferrous minera
165	03	142	39W	20	01	C	21	24.00	non-ferrous minera
165	03	142	39W	36	07	C	21	12.81	
165	03	142	39W	20	02	C	21	57.75	non-ferrous minera
165	03	142	39W	20	03	C	21	48.00	non-ferrous minera
165	03	142	39W	20	NWNW	C	21	40.00	non-ferrous minera
165	03	142	39W	30	01	C	21	22.50	non-ferrous minera
165	03	142	39W	30	04	C	21	28.21	non-ferrous minera
165	03	142	39W	30	06	C	21	10.16	non-ferrous minera
165	03	142	40W	25	02	C	21	23.75	
165	03	142	40W	25	03	L	21	39.35	
165	03	142	40W	25	04	C	21	33.00	
165	03	142	40W	25	05	L	21	15.30	

137 PARCELS TOTAL 5133.449 ACRES

EXCHANGE STATE LAND WITH COUNTY

164	03	139	36W	30	02	C	21	37.85
164	03	139	38W	24	SENW	B	21	40.00
164	03	139	38W	24	SWNE	B	21	40.00
164	03	140	38W	04	03	B	21	38.83
164	03	140	38W	04	04	B	21	38.41
164	03	140	38W	04	SENW	B	21	40.00
164	03	140	38W	04	SESE	C	21	40.00
164	03	140	38W	04	SWNW	B	21	40.00
164	03	140	38W	04	SWSE	C	21	40.00
164	03	140	38W	12	NENE	C	21	40.00
164	03	140	38W	12	NWNE	C	21	40.00
164	03	140	38W	22	NESW	C	21	40.00

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	03	140	38W	22	SENW	C	21	40.00	
164	03	140	38W	22	SWNW	C	21	40.00	
164	03	140	38W	22	SWSE	B	21	40.00	
164	03	140	38W	26	SWSE	C	21	40.00	
164	03	140	38W	32	NESE	C	21	40.00	
164	03	140	39W	13	NENE	C	21	40.00	
165	03	142	39W	04	SENE	C	21	40.00	
165	03	141	40W	11	NWSW	C	21	40.00	future wma poss.
165	03	141	40W	11	SWSW	C	21	40.00	future wma poss.
165	03	141	40W	26	01	C	21	28.45	protected water
165	03	141	40W	26	02	C	21	6.70	protected water
165	03	141	40W	26	SWNE	C	21	40.00	
165	03	141	40W	30	05	C	21	54.90	protected water
165	03	141	40W	30	09	C	21	28.10	protected water
165	03	141	40W	35	02	C	21	12.50	protected water
27 PARCELS					TOTAL			1005.74 ACRES	

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF WILDLIFE

164	03	140	40W	04	SESE	C	21	40.00	
165	03	142	40W	23	10	C	21	12.30	
164	03	139	38W	27	SESE	C	21	40.00	
164	03	139	38W	34	NENE	C	21	40.00	
164	03	139	38W	34	NWNE	C	21	40.00	
5 PARCELS					TOTAL			172.30 ACRES	

TRANSFER ADMINISTRATIVE CONTROL TO SECTION OF FISHERIES

165	03	141	39W	12	01	A	21	15.15	
1 PARCEL					TOTAL			15.15 ACRES	

ACQUIRE COUNTY LAND INSIDE COUNTY
FOREST-PRIORITY 1

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	03	139	37W	05	02	M	70	38.02	
164	03	139	37W	05	03	M	70	37.90	
164	03	139	37W	05	04	M	70	37.77	
164	03	139	37W	05	SENW	M	70	40.00	
164	03	139	37W	05	SWNE	M	70	40.00	
164	03	139	37W	05	SWNW	M	70	40.00	
164	03	139	37W	06	NESE	M	70	40.00	
164	03	139	37W	06	SESE	M	70	40.00	
164	03	139	37W	07	02	M	70	36.68	
164	03	139	37W	07	NENW	M	70	40.00	
164	03	139	37W	07	NESE	M	70	38.00	
164	03	139	37W	07	NWSE	M	70	40.00	
164	03	139	37W	07	SENW	M	70	40.00	
164	03	139	37W	07	SWNE	M	70	40.00	
164	03	139	37W	21	NENE	M	70	40.00	
164	03	139	37W	21	NENW	M	70	40.00	
164	03	139	37W	21	NESE	M	70	40.00	
164	03	139	37W	21	NWNE	M	70	40.00	
164	03	139	37W	21	NWNW	M	70	40.00	
164	03	139	37W	21	NWSE	M	70	40.00	
164	03	139	37W	21	SENE	M	70	40.00	
164	03	139	37W	21	SENW	M	70	40.00	
164	03	139	37W	21	SESE	M	70	40.00	
164	03	139	37W	21	SWNE	M	70	40.00	
164	03	139	37W	21	SWNW	M	70	40.00	
164	03	139	37W	21	SWSE	M	70	40.00	
164	03	139	37W	22	NENE	M	70	40.00	
164	03	139	37W	22	NENW	M	70	40.00	
164	03	139	37W	22	NWNE	M	70	40.00	
164	03	139	37W	22	NWNW	M	70	40.00	
164	03	139	37W	22	NWSW	M	70	40.00	
164	03	139	37W	22	SWNW	M	70	40.00	
164	03	139	37W	23	NENE	M	70	40.00	
164	03	139	37W	23	NENW	M	70	40.00	
164	03	139	37W	23	NESE	M	70	40.00	
164	03	139	37W	23	NESW	M	70	40.00	

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
164	03	139	37W	23	SESE	M	70	40.00	
164	03	139	37W	23	SESW	M	70	40.00	
164	03	139	37W	23	SWSE	M	70	40.00	
164	03	139	37W	24	NENE	M	70	40.00	
164	03	139	37W	24	NENW	M	70	40.00	
164	03	139	37W	24	NWNE	M	70	40.00	
164	03	139	37W	24	NWNW	M	70	40.00	
164	03	139	37W	24	NWSW	M	70	40.00	
164	03	139	37W	24	SWSW	M	70	40.00	
45 PARCELS					TOTAL 1,788.37 ACRES				

ACQUIRE COUNTY LAND INSIDE COUNTY
FOREST-PRIORITY 2

164	03	139	37W	25	NESE	M	70	40.00	
164	03	139	37W	25	NWSE	M	70	40.00	
164	03	139	37W	25	SWSE	M	70	40.00	
164	03	139	37W	26	NENW	M	70	40.00	
164	03	139	37W	26	NWNE	M	70	40.00	
164	03	139	37W	26	NWSE	M	70	40.00	
164	03	139	37W	26	SENW	M	70	40.00	
164	03	139	37W	26	SWNE	M	70	40.00	
164	03	139	37W	26	SWSE	M	70	40.00	
9 PARCELS					TOTAL 360.00 ACRES				

ACQUIRE COUNTY LAND OUTSIDE COUNTY
FOREST-PRIORITY 1

164	03	139	37W	05	SENE	M	71	40.00	
164	03	139	37W	20	NENE	M	71	40.00	
164	03	139	37W	20	NWNE	M	71	40.00	
164	03	139	37W	20	NWSE	M	71	38.00	
164	03	139	37W	20	SWNE	M	71	40.00	
164	03	139	37W	20	SWSE	M	71	38.63	
164	03	140	37W	15	SWSW	M	71	40.00	
164	03	140	37W	19	NENE	M	71	40.00	
8 PARCELS					TOTAL 316.63 ACRES				

RMU 7

ADMNISTRATIVE AND SCATTERED STATE FOREST

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
161	29	141	32W	14	NENW	C	21	40.00	
161	29	141	32W	14	NWNW	C	21	40.00	
161	29	141	32W	16	NENE	A	21	40.00	
161	29	141	32W	16	NWNE	A	21	40.00	
161	29	141	32W	16	NWNW	A	21	40.00	
161	29	141	32W	16	SENW	A	21	40.00	
161	29	141	32W	16	SWNW	A	21	40.00	
161	29	141	32W	19	05	B	21	0.05	
161	29	141	32W	29	05	B	21	0.05	
161	29	141	33W	17	05	B	21	0.60	
161	29	141	34W	01	03	B	21	0.50	
161	29	141	34W	16	02	A	21	25.00	
161	29	141	34W	16	03	A	21	11.75	
161	29	141	34W	16	NESE	A	21	40.00	
161	29	141	34W	16	NESW	A	21	40.00	
161	29	141	34W	16	NWNW	A	21	40.00	
161	29	141	34W	16	NWSE	A	21	40.00	
161	29	141	34W	16	SENE	A	21	40.00	
161	29	141	34W	16	SENW	A	21	40.00	
161	29	141	34W	16	SESE	A	21	39.00	
161	29	141	34W	16	SWNE	A	21	40.00	
161	29	141	34W	16	SWNW	A	21	40.00	
161	29	142	34W	16	NENE	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	NENW	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	NESE	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	NESW	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	NWNE	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	NWSE	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	NWSW	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	SENE	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	SENW	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	SESE	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	SESW	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	SWNE	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	SWNW	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	SWSE	A	21	40.00	non-ferrous minera:
161	29	142	34W	16	SWSW	A	21	40.00	non-ferrous minera:
161	29	141	35W	11	04	B	21	0.25	

38 PARCELS TOTAL 1277.20 ACRES

EXCHANGE STATE LAND WITH PRIVATE INDUSTRIAL LANDOWNER

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
161	29	141	32W	36	NENE	A	21	40.00	
161	29	141	32W	36	NESW	A	21	40.00	
161	29	141	32W	36	NWNW	A	21	40.00	
161	29	141	32W	36	NWSE	A	21	40.00	
161	29	141	32W	36	NWSW	A	21	40.00	
161	29	141	32W	36	SESW	A	21	40.00	
161	29	141	32W	36	SWNW	A	21	40.00	
7 PARCELS					TOTAL			280.00 ACRES	

ACQUIRE COUNTY LAND OUTSIDE COUNTY FOREST-PRIORITY 1

161	29	141	32W	02	01	M	71	38.39
161	29	141	32W	02	02	M	71	38.93
161	29	141	32W	02	SWNE	M	71	40.00
161	29	141	32W	06	05	M	71	41.17
161	29	141	32W	06	06	M	71	41.42
161	29	141	32W	06	NESW	M	71	40.00
161	29	141	32W	06	NWSE	M	71	40.00
161	29	141	32W	06	SWSE	M	71	40.00
161	29	141	33W	04	SWSW	M	71	40.00
161	29	141	33W	09	02	M	71	38.00
161	29	141	33W	09	NESW	M	71	40.00
161	29	141	33W	10	NWSE	M	71	40.00
161	29	141	33W	10	SESE	M	71	40.00
161	29	141	33W	10	SWSE	M	71	40.00
161	29	141	33W	11	NENW	M	71	40.00
161	29	141	33W	11	NWSW	M	71	40.00
161	29	141	33W	11	SENW	M	71	40.00
161	29	141	33W	11	SWSW	M	71	40.00
161	29	141	33W	12	NENE	M	71	40.00
161	29	141	33W	12	NENW	M	71	40.00
161	29	141	33W	12	NWNE	M	71	40.00
161	29	141	33W	12	NWNW	M	71	40.00
161	29	141	33W	12	SENE	M	71	40.00
161	29	141	33W	12	SENW	M	71	40.00
161	29	141	33W	12	SWNE	M	71	40.00
161	29	141	33W	12	SWNW	M	71	40.00
161	29	141	33W	15	05	M	71	50.70
161	29	142	32W	03	02	M	71	38.46
161	29	142	32W	03	03	M	71	38.50
161	29	142	32W	04	01	M	71	38.66
161	29	142	32W	11	NESW	M	71	40.00
161	29	142	32W	12	01	M	71	21.00
161	29	142	32W	12	SENE	M	71	40.00

rad	co	twp	rge	se	qsec	c	ad	ACRES	special concerns
161	29	142	32W	12	SWNE	M	71	40.00	
161	29	142	32W	13	SWSW	M	71	40.00	
161	29	142	33W	24	SWSE	M	71	40.00	
36 PARCELS					TOTAL 1,425.23 ACRES				

ACQUIRE COUNTY LAND OUTSIDE COUNTY FOREST-PRIORITY 2

161	29	141	32W	01	01	M	71	39.78
161	29	141	32W	01	02	M	71	39.31
161	29	141	32W	01	SENE	M	71	40.00
161	29	141	32W	09	NENE	M	71	40.00
161	29	141	32W	09	NENW	M	71	40.00
161	29	141	32W	09	NWNW	M	71	40.00
161	29	141	32W	09	NWSW	M	71	40.00
161	29	141	32W	09	SENE	M	71	40.00
161	29	141	32W	09	SENW	M	71	40.00
161	29	141	32W	09	SWSE	M	71	20.00
161	29	141	32W	10	NENW	M	71	40.00
161	29	141	32W	10	NWNW	M	71	40.00
161	29	141	32W	10	SENW	M	71	40.00
161	29	141	32W	10	SWNW	M	71	40.00
161	29	142	33W	19	01	M	71	40.67
161	29	142	33W	19	02	M	71	40.34
161	29	142	33W	19	03	M	71	40.01
161	29	142	33W	19	04	M	71	45.13
161	29	142	33W	19	05	M	71	18.25
161	29	142	33W	19	06	M	71	39.95
161	29	142	33W	19	NENW	M	71	40.00
161	29	142	33W	19	SENW	M	71	40.00
161	29	142	33W	20	NWNE	M	71	40.00
161	29	142	33W	20	SWNE	M	71	40.00
24 PARCELS					TOTAL 932.44 ACRES			

SOILS

RMU 1 RED RIVER VALLEY

The soils in this unit are derived from several sources including: lacustrine deposits from glacial lakes Agassiz and Mahnomen; till deposits from the Fergus Falls, Graceville, and Osakis till plains and the Big Stone Moraine. The majority of the soils in the Agassiz plain are poorly drained silty and clayey soils. the majority of soils in the moraines and till plains are well drained loamy soils.

Several of the counties in this unit have current comprehensive soil surveys completed. These include: Clay,'80; Wilkin,'86; Traverse,'86; Grant,'75; Stevens,'71; and Pope,'72. Ottertail and Becker are currently undergoing soil surveys scheduled for completion in 1994 and 1992 respectively. Other sources of soil resource information in this unit include:

* General county soil maps
* Minnesota soil atlas project
* 1939 reconnaissance survey of the Red River Valley
* SCS farm plan soil maps

The dominant soils (SLU) in this unit include: LLWD, LLPD, CCPD, CLPD, SLWD, SLPD, SSPD, SSWD and peat. The majority of these soils are under cultivation. SSWD and some alluvial soils are the most likely to be forested or managed for forestry.

SOIL LANDSCAPE UNITS

SLU	%	NAME	LANDSCAPE POSITION	DRAINAGE	TEXTURE	AVAILABLE MOISTURE	REMARKS
LLWD	44	upland loamy moist	nearly level to gently rolling	somewhat poorly to well	SiL to Loam	8-12"	till plain
LLPD	20	lowland loamy wet	level to deppres-sional	poor	SiL,CL Loam	8-12	
CCPD	18	lowland clayey wet	nearly level	poor	SiC to Clay	8-12	

CLPD	6	lowland loamy over clayey wet	nearly level	poor	3'fSL SiC	8-12	
SLWD	4	upland loamy over sandy moist	level to undulating	somewhat poorly	3'SiL fSand	4-8	
SLPD	3	lowland loamy over	nearly level	poor	Sil,L sand	4-8	
SSPD	2	lowland sandy wet	nearly level	poor	SL,Sand sand	4-8	
SSWD	2	upland sandy droughty	gently sloping	well	LS,S sand	0-4	
A	tr	lowland clayey wet	narrow bottom land	poor	SiC,clay SiC,clay	8-12"	alluvial soils

SSWD occurs mainly on beach ridges and typically consists of 2 feet of loamy sand over sand and gravel. This soil is quite droughty with 0-4" of available water in the top 5' of soil. The dominant soil series is Sioux LS and has a capability subclass of 6s or 7s. Most of this unit is in hayland, native grasses, pasture or trees/brush, and is a potential site for native prairies. Forest productivity for this soil is low, management should include planting drought resistant species and practicing moisture and topsoil management. Potential species to plant include; red pine, jack pine, ponderosa pine and black hills spruce as well as a veriety of windbreak species. Red and jack pine may grow very poorly in high calcium carbonate soils. Most of the soils within this SLU will qualify for the conservation reserve program. This unit is a common source of gravel.

Alluvial soils occur within flood plains of streams and rivers and are often not cultivated due to periodic flooding. These soils are typically pastured and/or wooded. Soils in this unit are quite variable and consist of deep silty and/or clayey deposits with a possible shallow organic surface. Most of these soils are poorly drained. Forest productivity depends strongly on drainage, texture, the presence of an organic surface soil (peat) and the regularity of flooding. Soils are capable of producing quality stands of American elm, green ash, basswood cottonwood, red maple and potentially tamarack or black spruce. In most situations the operation of heavy equipment should be limited to when soil is frozen to avoid compaction and rutting. If unimproved many of these soils will qualify for the conservation reserve program as being in classes 5-8.

Also in association with streams and rivers are steep terraces and cutbanks. These areas are typically not cultivated and consist of sandyloam to clay loam soils. these soils are typically very productive and are capable of supporting quality stands of oak, ash basswood, aspen and white spruce.

Specific Program Direction

- Continue servicing requests for assistance or on-site investigations
- Anticipate a large increase of on-site investigaion requests due to large number of acres qualifying for the conservation reserve program. Investigate species suitability problems with high salt soils.
- Development of intensive soil survey interpretive information will have Emphasis on hte development of interpretations for sandy soils (beach ridges) , alluvial soils and stream terrace/bank soils.

RESOURCE MANAGEMENT UNIT 2

This unit consists predominantly of the Alexandria moraine complex with inclusions of outwash and loamy ground moraine in southern ottertail and northern Douglas counties. This unit consists mainly of well drained loamy soils with rolling to hilly topography. This unit stretches from north to south through several counties with varying degrees of soil resource information available in each county. Intensive soil surveys have been completed in Douglas,'75; Pope,'72; and Clay,'80 counties. Soil surveys are in progress in Becker and Ottertail counties with completion dates of 1992 and 1994 respectively. Other sources of soil resource information include:

- General soils maps of each county
- Minnesota soil atlas project
- 1930's reconnaissance soil survey of the Red river valley.
- SCS farm plan soil maps of scattered private lands
- Advanced copies of soil maps from active soil surveys

Forest management can be improved with use of a detailed soil resource inventory addressing forest users.

The Dominant soil landscape units within this RMU include: LLWD, LLWL, XLWD, XLWL, YLWD,and SSWD.

SLU TABLE

SLU	%	NAME	LANDSCAPE POSITION	DRAINAGE	TEXTURE	AVAILABLE MOISTURE	REMARKS
LLWD LLWL	71 10	upland fine loamy over loamy moist	rolling to hilly	well	4'CL loam	8-12" high	
XLWD XLWL	4 4	upland loamy over mixed moist	rolling to hilly	well	2-4'loam GrL,Loam	4-12 med-high	
SLWD	4	upland coarse loamy over sandy moist	undulating to nearly level	well	2-3'SL S&gr	4-8 med	SE. Douglas county
YLWD	3	upland fine loamy moist/wet	rolling to hilly	well	4'CL CL,SiCL	8-12 high	

SSWD	2	upland sandy droughty	rolling	well to excess	1-2'LS S&gr.	0-4 low
LLPD	tr	lowland fine loamy wet	dep. to gently rolling	poorly	4'SiL SiCL	8-12 high

LLWD is a well drained soil formed under primarily prairie vegetation. This soil typically has a dark clay loam surface with a calcareous loamy subsurface and has a medium to high available moisture.LLWL is very similar but was formed under predominantly forest vegetation and has a lighter colored surface. Both soils are very productive and can support quality hardwood sawtimber. Potential species to manage for fores productivity include; red pak, basswood, green ash, elm and aspen as well as white spruce. these sites are susceptable to site damage due to heavy equipment operation in the frost free season. Management of topsoil in place is important to avoid soil campaction.

XLWL is a well drained soil formed under forest vegetation. This soil typically consists of a loamy surface with a calcareous gravelly loam or loam subsurface. It has a medium to high available moisture depending on the subsoil and slope position. XLWD is very similar but was formed under prairie vegetation and has a darker surface. Both soils are very productive and can support quality saw timber with less productive stands occurring on those sites with gravelly loam subsoils. potential species to manage for forest productivity include;red oak, basswood, green ash, elm and aspen as well as white spruce and white pine on the soils with gravelly loam subsoils. These sites are susceptible to site damage due to heavy equipment operation in the frost free season. Management of topsoil in place is important to avoid soil compaction. Avoid deep scarification during site preparation practices. steep soils or those soils with a shallow surface may qualify as class 5-8 in the conservation reserve program.

SLWD is a well drained soil typically consisting of 2-3 feet of sandy loam surface over a sand or sand and gravel subsoil. It has a medium moisture availability with less available on steep slopes and southern exposures or on sites with shallow surface soil. The majority of this soil is located in southeastern Douglas county in an outwash plain. This soil is capable of supporting a variety of forest species with productivity depending on depth of surface soil and moisture availability. lowest productivity will occur on soils with a shallow surface, gravelly subsoil and a southern or western aspect, and should be managed for drought resistant species such as red or jack pine.. Best sites will occur on soils with a deep surface and in lower slope positions.Potential species to management for forest productivity include; northern hardwoods, red oak, aspen, and white spruce. On steeply sloping sites this soil may qualify for the proposed conservation reserve program.

Other soils include YLWD, SSWD,and LLPD. YLWD is a well drained soil with a clay loam surface over a clay loam or silt loam subsurface. This soil is very productive with a high available moisture holding capacity but may be quit wet during long periods after spring breakup or heavy rains. Suitable species to manage include; red oak, n.hardwoods, elm, basswood, and green ash. Heavy should be operated during the frozen season only. Avoid deep scarification or topsoil disturbance during site preparation.

SSWD is a well drained deep sandy soil with a low moisture holding capacity. This soil is located predominantly in southeastern Douglas in an outwash plain or on eskers or kames scattered throughout the moraine. Suitable species to manage for forest production include; jack pine and red pine. topsoil and moisture management are critical to site productivity. This soil is typically poor farmland and may qualify for the proposed conservation reserve program.

Specific Program Direction

- Continue servicing requests for assistance or on-site investigations including: investigation of soil/site conditions for red oak regeneration; emphasis on timing of logging to avoid soil/site damage; species selection for the conservation reserve program.

- Continue work with Becker and Ottertail soil survey parties.

RMU-3 DETROIT LAKES PITTED OUTWASH

The bulk of this unit is located in the Detroit lakes pitted outwash plain in S.W. Becker and Ottertail counties. The far Southern portion of this unit is located in Pope county and comprises a portion of the Alexandria moraine and Belgrade outwash plain. Soils in the northern portion consist predominantly of well drained sandy or sandy loam surface soils with sand and gravel subsoils. Soils in the southern portion consist predominantly of well drained fine loamy surface soils over loamy till with areas of sandy soils occurring in the outwash plain or scattered in the moraine. Of particular significance is a range of steep hills several miles long in S. Barness and Chippewa falls townships and North Gilchrist and Rolling townships.These hills are the result of ice contact features and consist of droughty sandy loam or sand over sand and gravels. These soils are typically to poor to economically cultivate for crop production.

Soil resource information in this unit consists of: completed soil surveys in Pope and clay counties and active surveys in Becker and Ottertail counties. Other sources of soil information include:

* General county soil maps
* Minnesota soil atlas project
* SCS farm plan soil maps

The dominant soil landscape units in this RMU include:SSWD, SSWL, SLWD,SLWL, LLWD, LLPD and organic soils.

SLU TABLE

SLU	%	NAME	LANDSCAPE POSITION	DRAINAGE	TEXTURE	AVAILABLE MOISTURE	REMARKS
			NORTHERN UNIT				
SSWD	44	upland sandy droughty	nearly level to rolling	well	1-3'LS sand&gr	<4	
SSWL	10	upland sandy droughty	gently rolling to hilly	well	"	"	
SLWD	34	upland co. loamy over sandy dry	level to gently rolling	well	2-3'SL sand&gr.	4-8	
SLWL	5	"	nearly level to gently rolling	"	"	"	
P	6	lowland organic wet	level to deppres-sional	v.poor	peat	12+	

SOUTHERN UNIT

LLWD	58	upland fine loamy over loamy moist	rolling	well	4'CL loam	8-12	Alexan. moraine till
SLWD	28	upland coarse loamy,over sandy,dry	nearly level to undulating	well	2-3'SL sand&gr	4-8	
SSWD	4	upland sandy droughty	rolling to steep	well	1-2'LS sand&gr	<4	eskers and ice contact
LLPD	5	lowland fine loamy over loamy wet	level to gently sloping	poor	SiCL loam	8-12	Alexan. moraine till
LP NP SP	5	lowland organic wet	level to deppres-sional	v.poor	peat S,L,peat	12+	

SSWD is a well drained soil occurring on variable topography, from nearly level near Perham, to steeply rolling hills south of Lake Minnewaska. this soil typically consists of 1-3 feet of Loamy sand over sand and gravel. It has very low available moisture. SSWL is very similar but has a lighter colored topsoil. These soils are quite droughty and typically are not economical to cultivate. Most areas are in pasture or grasslands and are potential sites for native prairies. productivity for this is low and depends largely on the depth of the surface, aspect and slope position. Shallow steep soils on a southwest aspect are most droughty. Management should include planting drought resistant species such as red or jack pine and practicing careful topsoil and moisture management. The dominant soil series has a capability subclass of 6s or 7s and if cropped qualifies for the conservation reserve program.

SLWD is a well drained soil found broad areas throughout this RMU. This soil typically consists of sandy loam over sand and gravel. It occurs on nearly level to gently rolling topography and has a low to medium moisture holding capacity. SLWL is very similar but has a lighter colored topsoil. These soils are typically cultivated where level or gently sloping, but remain in grasslands or pasture on steeper slopes. Productivity of these sites depends largely on the depth of the sandy loam topsoil and the slope position, both relating to nutrients and moisture, and varies from very low on steep shallow soils to moderate or high on deep flat soils.Management should include planting drought resistant species (red, jack pine)on steep or shallow soils. On better sites potential species include red pine, jack pine, white spruce, aspen or possibly N.hardwoods, oak or ash on best sites.

Topsoil and moisture management are critical to maintaining site productivity. Deep scarification especially on soils with a shallow sandy loam surface should be avoided. Steeper and droughtier soils in this unit will qualify for the conservation reserve program if cropped.

LLWD is a well drained deep loamy soil dominating the southern portion of this RMU. This soil consists of a well drained fine loamy surface over calcareous loamy till subsurface. It occurs on a rolling topography and has a medium to high available moisture. Most of this unit is under cultivation. This soil is probably the most productive soil in this RMU and is capable of supporting quality hardwood saw timber. Potential species to manage include; red oak, basswood, green ash, elm, and aspen. These soils are susceptable to site damage due to heavy equipment operation during frost free months. Management of the topsoil in place is important to avoid soil compaction. Avoid deep scarification during site preparation practices. Few of these soils will qualify for the conservation reserve program unless eroding at twice the tolerance. LLPD is the poorly drained associate of this soil.

other major soils in this RMU include shallow organic soils over sand or loamy till and deep organic soils. These areas provide important wildlife habitat and are typically low productive soils.

Specific Program Direction

- Continue to service requests for assistance and on-site investigation. Emphasize topsoil and moisture management during site preperation activities.
- Anticipate large volume of conservation reserve projects in this unit. Forest soils specialist may be involved in species recommendaions, site preperation recommendations etc.
- Continue work with Becker and Ottertail county soil surveys.

RESOURCE MANAGEMENT UNIT 4

This unit consists of the Henning till plain, the N.W. portion of the Wadena drumlin field, and a small portion of outwash in SE Ottertail county. Soils are predominantly well drained sandy loam till. Soil resource information for this unit consists of:

* completed current soil survey of Douglas county
* Active surveys in Ottertail and Becker counties.
* General county soil maps
* Minnesota soil Atlas project
* SCS farm plan soil maps

The dominant soil landscape units (SLU) include:LLWL, LLWD, XLWL, SSWL, SSWD, LLPL, SLWD and peat.

SLU TABLE

SLU	%	NAME	LANDSCAPE POSITION	DRAINAGE	TEXTURE	AVAILABLE MOISTURE	REMARKS
LLWL	45	upland co. loamy dry	gently rolling	well	4'SL SL	4-8"	forest origin
LLWD	5	upland co.loamy moist	"	"	"	8-12"	prairie origin
SSWD	12	upland sandy droughty	level to gently rolling	well	1-3'LS sand&gr	0-4"	prairie origin
SSWL	6	"	"	"	"	"	forest origin
XLWL	7	upland co.loamy over mixed	rolling	well	2-4'SL SL, S&gr	0-8"	"
XLWD	tr	"	"	"	"	"	prairie origin
LLPL	5	lowland co.loamy wet	nearly level	poorly	2-4'SL SL	8-12	
SLWD	5	upland co.loamy over moist dry	level to undulating	well	2-3'SL sand&gr	4-8	
PEAT	13	lowland organic wet	low deppres-sional	v.poor	peat	12+	

LLWL is a well drained soil formed under predominantly forest vegetation. This soil has a sandy loam surface over sandy loam till subsoil, is gently rolling in topography and has medium to low available moisture. LLWD is very similar but was formed under prairie vegetation and has slightly higher available moisture due to incorporated organic matter. Most of the LLWD unit occurs in S.E. Becker and N.E. Ottertail counties. In the drumlin field this soil is found in east-west oriented hills and in association with long narrow organic areas. LLPL is the poorly drained associate of these soils. The sandy loam subsoil is more dense than in the till plain and therfore dries out about 2 weeks slower in the spring than the Henning till plain. Most of this soil is under cultivation. Forest productivity of this unit is not as high as the loamy soil in the Alexanandria moraine, but is still medium for aspen and hardwoods, and medium to high for pine and spruce. Species to manage include; Aspen, white spruce, red pine, white pine, northern hardwoods, oak, ash, and basswood. When cutting aspen for natural regeneration, winter harvest will result in better and more vigorous sprouting. If converting plan summer cuts but avoid operation after heavy rains or during spring breakup.

XLWL is a well drained soil formed in variable parent material. This soil typically consists of 2-4′ of sandy surface over mixed sandy loam or sand and gravel subsoil. XLWD also occurs in this unit and is very similar but has a darker surface soil. The majority of these soils occur in the Henning till plain and are management for agriculture. Moisture availability varies from droughty on sandy textured subsoils to high on loamy textured soils on toeslopes and valleys. Forest productivity varies from low to high depending on; subsoil depth and texture, and landscape position. Productivity is highest on deep loamy soils in low slope postitons vs shallow sandy loam on steep southwest slopes. Species to manage include; aspen, northern hardwoods, white spruce, red pine,and white pine, depending on specific site conditions. Harvest should be planned so that droughty soils concidered for conversions be cut during summer and sites concidered for aspen regeneration be cut during winter.Moisture and topsoil management is critical to maintaining productivity especially on those sites with sandy subsoils. Approximately 40 % of these soils are classed 6-8 and should qualify for the conservation reserve program if row cropped.

SSWL and SSWD both formed in deep sandy outwash deposits, one (SSWD) under prairie vegetation and the other (SSWL) under forest vegetation. These soils occur in outwash inclusions within RMU 4 mostly in SE Ottertail county. these soils are well drained and typically consist of 1-3 feet of loamy sand over sand or sand and gravel. they are nearly level in topography and have low available moisture. Productivity is generally dependant on texture (% silt plus clay) in the surface, drainage, and the occurrence of textural banding or fluctuating water table in the subsoil. Species to manage include predominantly red pine and jack pine. topsoil and moisture management are critical to successful forest management on these soils.

Other soils in this RMU include; SLWD, SLPL, SLPD, and approximately 13% organic soils. The organic soils normally occur in potholes or in lowlands between drumlins. There is some potential for lowland forest management (black ash and tamarack) in the poorly drained soils between drumlins in the Wadena drumlin field. These soils are often fed with nutrients from the nearby mineral soils.

Specific Program Direction

- Continue to service requests for assistance and on-site investigations. Emphasize planned winter harvests for aspen regeneration vs summer for conversions
- Investigate lowland management potential in drumloid lowlands.
- Continue work with Becker and Ottertail county soils surveys.

RESOURCE MANAGEMENT UNIT 5

This unit is a broad outwash plain associated with the Wadena ice lobe of the Wisconsin glacial age.It is located within Southern Hubbard and eastern Becker counties. Soils are predominantly well drained sands and sandy loams over sands and gravels. A limited amount of soil resource information is available in this unit with very little addressing forestry uses. Becker county is currently undergoing an intensive soil survey scheduled for completion in 1992. Hubbard county has not scheduled a soil survey as of 1985. Forest management could be improved with a detailed soil resource inventory addressing the forest users. Sources of soil information in this unit include:

- General soils maps of Hubbard and Becker counties
- Minnesota soil Atlas Project
- 1930 reconnaissance soil survey and map of Hubbard county
- SCS land management maps of scattered private lands
- Advanced copies of the current soil survey of Becker county

The dominant soil landscape units (SLU) within this RMU include SLWD, SLWL, SSWL, SSWD and organic soils.

SLU TABLE

SLU	%	NAME	LANDSCAPE POSITION	DRAINAGE	TEXTURE	AVAILABLE MOISTURE	REMARKS
SLWD	32	upland loamy coarse over sandy moist	level to rolling	well	2-3'SL S&gr	4-8 med	prairie origin
SLWL	31	"	undulating to rolling	"	"	"	forest origin
SSWL	23	upland sandy droughty	gently rolling	well	1-3'LS S&gr	0-4 low	forest origin
SSWD	4	"	"	"	"	"	prairie
P	10	lowland organic	level to depres-sional	very poor	peat	12+	origin
LSWL	tr	upland sandy over co. loamy moist	undulating to rolling	well	1-3'LS SL	4-8 med	

LLWL	tr	upland loamy moist	gently rolling	well	SL / SL	4-8 med
SP	tr	lowland organic	level	very poor	organic sandy	12+

SLWD is a well drained soil formed under prairie vegetation. This soil has a dark sandy loam surface with a sand and gravel subsoil, is nearly level to gently rolling in topography and has low to medium moisture availability. Much of this soil is under cultivation. SLWL is very similar but was formed under forest vegetation, has a lighter surface and has a more rolling topography. This unit is found predominantly adjoining the Itasca moraine (RMU 7) in Hubbard county.When forested this soil typically supports aspen or jack pine with red pine and scrub oak interspersed throughout. Site productivity ranges form medium to very good for jack pine to; low to medium for aspen, and is largely dependant on depth and texture of surface soil, and moisture availability. Those soils with deep sandy loam surface and a low slope position are more productive than those with a shallow surface and on a steep southern slope. Species to manage include; jack pine, red pine, aspen, white spruce and birch depending on independent site conditions. Harvests should be planned so that droughty conversion sites are scheduled for summer harvest and aspen regeneration sites for winter harvest. Many sites can support moderate equipment operation without damage in frost free seasons.

SSWL is a well drained to droughty soil formed under forest vegetation. This soil typically has a light colored loamy sand surface with a sand or sand and gravel subsoil, is gently rolling in topography and has low moisture availability. SSWD is very similar to SSWL but was formed under prairie vegetation and has a darker surface. When forested these soils typically supports pine species or low site index aspen, oak or birch. Availability of moisture and condition of topsoil are critical to site productivity. Subsurface groundwater and/or textural banding will increase productivity. Careful topsoil and moisture management will help maintain or improve site productivity. Many of these sites are under cultivation.

Organic soils comprise approximately 10% of this RMU. These soils typically consist of deep organics over sand. Also found within this unit is shallow organics over sand(SP), shallow sands over sandy loams(LSWL), and deep loams(LLWL).

Specific Program Direction

- Continue servicing requests for assistance and on-site investigations. Emphasize moisture and topsoil management.
- Emphasize the Park Rapids outwash plain as #2 priority for development of specific forestry interpretation in the Becker soil survey.(Itasca moraine is #1)
- Emphasize planned winter harvest for aspen regeneration sites.

RESOURCE MANAGEMENT UNIT 6

DESCRIPTION

This unit includes the eastern portion of the Itasca moraine, a prominent end moraine associated with the wadena ice lobe. Due to the complexity of it's soils a thorough knowledge of the soil resource, it's limitations and capabilities are essential to good forest management. Ignoring these limitations and capabilities can result in costly mistakes and lost opportunities.

This unit is totally within Becker county. This county is currently undergoing a detailed soil survey scheduled for completion in 1992. Other sources of soil resource information include:

- Advanced copies of the completed soil maps as they become available.
- Minnesota soil Atlas project.
- Becker county general soils map.
- SCS farm planning maps.

The dominant soils in this unit are XLWL,SSWL and LLWL, all of which contain forested lands.

SLU TABLE

SLU	%	Name	Position	texture	Drainage	Available Moisture	Remarks
XLWL	51	upland mixed	rolling to steep	SL 2-4' SL,S,S&gr	well to excess	0-8" low-med	
LLWL	19	upland coarse loamy moist	rolling to steep	SL 2-4' SL	well	4-8 med	
SSWL	24	upland coarse droughty	undulating to rolling	LS 1-3' S&gr	well to excess	0-4 low	
SLWL	tr.	upland coarse loamy over sandy droughty	undulating to rolling	2-4'SL LS,S,S&gr	well to excess	0-4 low	
LLPL	tr.	lowland coarse loamy wet	nearly level to depres-sional	2-4'SL SL	poorly	4-8 med	

XLWL is a well to excessively well drained soil deposited directly off the ice and, therefore, very mixed. Surface textures range from loamy sand to loam, with subsurface textures from sand and gravels to sandy loam. Moisture availability ranges from low on sandy subsoils and on hilltops, to high, on loamy textured soils on toeslopes and valleys. Isolated areas of sandy textured soils can be found throughout this unit and commonly occur on hilltops. Boulders and gravel sources are common throughout.XLWL soils are mixed in species composition with aspen or northern hardwoods on the moister sites, and pine or oak and birch on the drier sites. Productivity of the XLWL unit is dependent on landscape position, subsurface soil textures, and aspect, all of which are important to moisture and nutrient availability. Productivity for aspen can range from SI 80+ on toeslopes with loamy textures, to less than 50 on hilltops and SW exposures with sandy subsoils. Species to manage is very dependant on specific site conditions. Topsoil and moisture management are critical to maintaining productivity especially on the droughty sites. Most soils should dry out sufficiently to allow equipment operation during the frost free season, with the exception on deep loamy soils especially those in a low slope position.

LLWL is a well drained soil similar to XLWL, but with a more uniform subsoil. The dominant surface texture is sandy loam with a sandy loam subsurface . Moisture availability is medium, with less available on hilltops and steep southern exposures. Boulders are common throughout but gravel sources are locally scarce. LLWL soils tend to support predominantly aspen and northern hardwoods. Forest productivity will vary by slope position, aspect or variable soil textures of inclusions. Potential productivity for aspen should range from good to excellent. these soils may not dry adequately to allow heavy equipment operation during the frost free season without damage to the site. A larger percent of land in the LLWL unit is in agricultural production than in XLWL.

SSWL is a well to excessively well drained soil originating from sandy outwash deposits. This unit typically consists of 1-3 feet of loamy sand over sand and gravel. Moisture availability is low especially on south and southwest exposures or hilltops. The majority of this unit is forested predominantly with jack pine,or low productive aspen, oak or birch. Site productivity depends largely on slope position, depth of the loamy sand surface and the presence of any textural banding or fluctuating water in the subsoil. Site index for pine ranges from 55-65. topsoil and moisture management are critical for maintaining or improving site productivity. If row cropped many of these soils will qualify for the conservation reserve program.

Other soils within this unit include: 6% organic soils and a trace of loamy over sandy well drained (SLWL) and loamy over loamy poorly drained (LLPL).

Specific Program Direction

- Continue servicing requests for assistance and on-site investigations.
- Emphasize this unit as #1 priority for development of specific forestry interpretations for the Becker county soil survey.
- Incorporate soils information into timber regulation planning including: site selection to meet conifer and aspen goals; indicate those soils that may hold aspen longer than others; emphasize planned winter harvest for aspen regeneration sites vs summer harvest for conifer conversions.
- Provide information on potential gravel sources

RMU-7, Eastern Itasca Moraine

the Itasca moraine is a major forested landform in the Park rapids Area. Due to its complexity a thorough knowledge of the soil resource, it's limitations and capabilities is essential to good forest management. Ignoring these limitations and capabilities can result in costly mistakes and lost opportunities.

This unit is totally contained within Hubbard county. No current detailed soil survey is scheduled in this county as of October, 1985.Existing soil surveys include a 1930's soil map at a scale of 1"/mile and the University of Minnesota soil atlas sheet. These maps are suitable for general planning maps and not site specific maps.

A soil landscape (SLU) can be defined as a broad grouping of soils with similar surface and subsurface textures, moisture relationships and landscape position.The SLU is characterized by it's dominant soil,however inclusions are common and should be expected.

the dominant soils in this unit are XLWL and LLWL (see chart)

SLU TABLE

SLU	%	NAME	POSITION	TEXTURE	DRAINAGE	MOISTURE
XLWL	49	upland mixed	rolling to steep	2-4'SL SL,S,S&Gr	well to excess	0-8" low-med
LLWL	35	upland coarse loamy moist	rolling to steep	2-4'SL SL	well	4-8" med.
LSWL	8	upland sandy co loamy moist	undulating to rolling	1-3'LS SL	well	4-8" med.
SSWL	3	upland sandy droughty	undulating to rolling	1-3'LS S&Gr	well to excess	0-4" low
NP	3	lowland organic	level or depression	non acid deep peat	very poorly	12+" very high

XLWL is a well to excessively well drained soil deposited directly off the ice and therefore very mixed. Surface textures range from loamy sand to loam, with subsurface textures from sand and gravels to sandy loam. Moisture availability ranges from low on sandy textured subsoils and on hilltops, to high on loamy textured soils on toeslopes and valleys.Isolated areas of sandy textured soils can be found throughout this unit and commonly occur on hilltops.Boulders are common throughout. gravel sources are common. The majority of this unit is forested with aspen and scattered pine species.

LLWL is a well drained soil similar to XLWL but with a more uniform subsoil. The dominant surface texture is sandy loam with a sandy loam subsurface texture. Moisture availability is medium, with less available on hilltops and steep southern exposures. Boulders are common throughout.Gravel sources are locally scarce.

A larger percent of this unit is in agricultural land than XLWL. The forested area consists predominantly of aspen. Pine species can be found in small sandy inclusions in this unit.

Productivity of these units is dependant on landscape position and subsurface soil textures, both relating to moisture and nutrients. Productivity for aspen can range from SI 80+ on toeslopes with loamy textures, to less than 50 on hilltops and SW exposures with sandy subsoils.

Other soils within this unit include:8% sandy over loamy , well drained;3% sandy over sandy, well drained;
2% loamy over sandy, well drained,and 3% percent organic soils. these soils are described in the following table.

Management Strategy

The combination of locally steep terrain and variable soils present many challenges and opportunities in forest management including: forest road lacation and planning; timber sale location and design; silvicultural prescriptions; species composition and recreational activities.

Silvicultural and timber sales practices must be flexible and innovative to accommodate the variable site conditions. Limited information shows that with proper management, the second rotation of aspen can be considerably more productive than this rotation due to past disturbances. Seasonal logging should be carefully planned to accommodate site conditions and regeneration plans. Summer activity can be carried out on sandy well drained units with little chance of soil compaction. Skid trails should be designed to avoid soil erosion and to impact a minimum percent of the site.

Specific Proposals

The majority of these soils are capable of producing high yields of pine as well as aspen. Soil/site data is needed to identify the best investment in aspen conversion to meet the conifer goals of the Paul Bunyan State Forest. Harvests should be planned so that sandy conversion sites are scheduled for summer harvest and aspen regeneration sites are scheduled for winter harvest. Planning conversion sites for summer harvest will reduce conversion costs.

Forest road construction in RMU 7 is unique due to terrain and soil materials. Road base and cut banks hold up very well throughout most soil types. The topography requires access roads and skid trails to avoid greater than 10% grade to prevent soil erosion.

Soils resource information can be used to identify gravel locations and evaluate base material for road reconstruction and planning. A continued on-site investigation for type conversions, Gravel deposits, applied herbicides, and gravel locations will be done.

APPENDIX

Soil Landscape Unit A soil landscape unit (SLU) can be defined as a broad grouping or association of soils with similar surface and subsurface textures, moisture relationships landscape position and color. The SLU is named and characterized by the dominant soil in the unit. However, inclusions are common and should be managed appropriately. the abbreviated name of the SLU consists of four letters (ie.LLWL) representing specific features of the dominant soil type.

- The first letter represents the base material: L (loam); S (sand); Y (silt); C (clay); and X (mixed)
- The second letter represents the surface material: L (loam); S (sand); and C (clay).
- The third represents drainage: P (poor and very poor); W (well, moderately well and somewhat poorly)
- The fourth represents color: L for light soils usually formed under forest vegetation, and D for dark soils usually formed under prairie vegetation.

KEY TO SLU TABLE

- SLU — see above
- % — estimated percent of that SLU in the RMU
- NAME — A descriptive name indicating : drainage and position (upland v.s. lowland); surface and subsurface texture (loamy over sandy); and moisture relationships (dry, moist etc.)
- LANDSCAPE POSITION — description of the landscape where the soil is found.
- DRAINAGE — soil drainage: POOR (water at 0-1'); SWP (somewhat poorly or water at 1-3'); WELL (water at greater than 6'); EXCESS (very deep to water)
- TEXTURE — designates surface texture over subsurface texture. ie. 2-4'SL = 2-4 feet of sandy loam over sand.

  sand.
  S (sand), LS (loamy sand), SL (sandy loam), L (loam), Si (silt), SiL (silt loam), CL (clay loam), SiCL (silty clay loam), SC
  (sandy clay), C (clay), gr (gravel), f (fine), vf (very fine).
- AVAILABLE MOISTURE — indicates the amount of moisture typically available for plant use in the top five feet of soil in inches.

TIMBER MANAGEMENT

TIMBER MANAGEMENT PRESCRIPTIONS

RESULTS FROM TMPIS MODEL

TABLE ____. MANAGEMENT PRESCRIPTIONS BY COVER TYPE

COVER	CLEAR CUT STD	CLEAR CUT ACRES	THINNING STD	THINNING ACRES	ALL-AGED STD	ALL-AGED ACRES	SALVAGE STD	SALVAGE ACRES	REGEN STD	REGEN ACRES	TOTAL STD	TOTAL ACRES
ASH	6	70	0	0	0	0	0	0	1	13	7	83
LOW HW	9	152	0	0	0	0	1	14	2	51	12	217
ASPEN	344	17044	0	0	22	1208	8	257	2	47	376	18556
PBIRCH	33	874	0	0	1	6	4	68	0	0	38	948
BALM	4	21	0	0	0	0	0	0	0	0	4	21
NOR HW	13	308	0	0	17	314	5	159	0	0	35	781
OAK	15	387	6	198	3	61	5	231	0	0	29	877
W PINE	5	57	5	75	0	0	0	0	0	0	10	132
N PINE	38	680	110	1870	1	28	2	29	0	0	151	2607
J PINE	99	1311	0	0	0	0	2	50	2	26	103	1387
S PINE	0	0	0	0	0	0	0	0	0	0	0	0
WH SPR	1	9	2	56	0	0	0	0	0	0	3	65
BALSAM	22	332	0	0	1	5	10	273	3	68	36	678
BL SPR	10	219	0	0	0	0	0	0	0	0	10	219
TMRACK	23	383	0	0	2	28	6	97	5	225	36	733
WCEDAR	1	12	0	0	0	0	0	0	0	0	1	12
UPBSPR	0	0	0	0	0	0	0	0	0	0	0	0
CUT	0	0	0	0	0	0	0	0	0	0	0	0
LOGRAS	0	0	0	0	0	0	0	0	0	0	0	0
UPGRAS	0	0	0	0	0	0	0	0	0	0	0	0
LOBRSH	0	0	0	0	0	0	0	0	0	0	0	0
UPBRSH	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	623	21859	123	2199	47	1650	43	1178	15	430	851	27316

SUMMARY OF ARTIFICIAL REGENERATION NEEDS FOR NEXT 10 YEARS
(Acres by Species and Regeneration Method)

SPECIES	PLANT	SEED
WCEDAR	139	0
WH SPR	813	0
BL SPR	224	13
W PINE	138	0
N PINE	2847	22
ASPEN	12	0
J PINE	1369	141
P PINE	0	7
TMRACK	330	185
TOTAL	5872	368

ASH

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:ASH ROTATION AGE: 90

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	27	107	58	63	66	70	73	78	83	87	93
11-20	00	27	107	58	63	66	70	73	78	83	87
21-30	05	00	27	107	58	63	66	70	73	78	83
31-40	00	05	00	27	107	58	63	66	70	73	78
41-50	00	00	05	00	27	107	58	63	66	70	73
51-60	06	00	00	05	00	27	107	58	63	66	70
61-70	63	06	00	00	05	00	23	79	58	63	66
71-80	101	63	06	00	00	05	00	00	25	26	28
81-90	32	101	63	06	00	00	00	00	00	00	00
91-100	05	32	100	63	06	00	00	00	00	00	00
100+	70	05	00	59	79	39	00	00	00	00	00
CCB TOTAL	309	346	366	388	411	435	460	487	516	546	578
HARVEST	70	38	41	43	46	48	51	54	57	61	64
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	70	38	41	43	46	48	51	54	57	61	64
ADDS	37	20	22	23	24	25	27	29	30	32	34
NONCOM	13										
CVN	13										
UNCHG	00										
ADDS	00										
FUT 0-10	107	58	63	66	70	73	78	83	87	93	98

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:ASH

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	309
10 YEAR ALLOWABLE CUT ACREAGE	34
ANNUAL ALLOWABLE CUT ACREAGE	3
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: ASH

TOTAL ACRES IN TYPE: 309
10 YEAR ALLOWABLE CUT: 34
ANNUAL ALLOWABLE CUT: 3

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
ASH	0	0	16	0	54	70
WCEDAR	13	0	0	0	0	13
TOTAL	13	0	16	0	54	83

LISTING OF ALL STANDS TO BE REGENERATED WITHOUT HARVEST

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
02-00	35	140	37-W	000	38	094	1	013	ASH	1.5	00	0	0	WCEDAR	PLANT

TOTAL STANDS 1 TOTAL ACRES 13

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
04-00	26	141	40-W	000	33	065	1	008	ASH	2.2	00	0	0
05-00	01	142	37-W	000	40	021	2	009	ASH	0.8	44	1	1
04-00	11	142	39-W	000	35	020	4	007	ASH	1.7	00	0	0

TOTAL STANDS 3 TOTAL ACRES 24

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
05-00	14	139	37-W	000	40	152	2	013	ASH	4.5	00	0	0	ASH	SPROUT
13-00	23	140	37-W	000	45	114	3	007	ASH	4.0	00	0	0	ASH	SPROUT
06-00	26	140	39-W	000	46	113	3	028	ASH	10.0	00	0	0	ASH	SPROUT
16-00	09	140	37-W	000	49	108	5	011	ASH	13.1	00	0	0	ASH	UNDERS
03-00	15	141	36-W	000	45	101	4	005	ASH	8.2	28	2	1	ASH	UNDERS
06-00	15	141	36-W	000	45	101	4	006	ASH	8.2	28	3	1	ASH	SPROUT

TOTAL STANDS 6 TOTAL ACRES 70

LOWLAND HARDWOODS

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:LOWLAND HARDWOODS ROTATION AGE: 100

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	00	00	00	00	00	00	00	00	00	00	00

11-20	00	00	00	00	00	00	00	00	00	00	00
21-30	00	00	00	00	00	00	00	00	00	00	00
31-40	00	00	00	00	00	00	00	00	00	00	00
41-50	16	00	00	00	00	00	00	00	00	00	00
51-60	24	16	00	00	00	00	00	00	00	00	00
61-70	42	24	16	00	00	00	00	00	00	00	00
71-80	90	42	24	16	00	00	00	00	00	00	00
81-90	156	90	42	24	16	00	00	00	00	00	00
91-100	36	156	90	42	24	16	00	00	00	00	00
100+	331	215	310	346	340	321	299	265	235	208	184
CCB TOTAL	695	543	482	428	380	337	299	265	235	208	184
HARVEST	152	61	54	48	43	38	34	30	27	24	21
CVN	152	61	54	48	43	38	34	30	27	24	21
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	65										
CVN	65										
UNCHG	00										
ADDS	00										
FUT 0-10	00	00	00	00	00	00	00	00	00	00	00

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:LOWLAND HARDWOODS

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	695
10 YEAR ALLOWABLE CUT ACREAGE	78
ANNUAL ALLOWABLE CUT ACREAGE	7
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	152

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

WCEDAR	WH SPR	ASH	BL SPR	ASPEN
13	57	17	23	42

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: LOWLAND HARDWOODS

TOTAL ACRES IN TYPE:	695
10 YEAR ALLOWABLE CUT:	78
ANNUAL ALLOWABLE CUT:	7

REGEN SPECIES	ARTIFICIAL PLANT	ARTIFICIAL SEED	NATURAL UNDER	NATURAL SEED	NATURAL SPROUT	TOTAL
WCEDAR	13	0	0	0	0	13
WH SPR	99	0	0	0	0	99
GR ASH	0	0	0	0	11	11
BL SPR	23	0	0	0	0	23
ASPEN	0	0	0	0	56	56
ASH	0	0	0	0	6	6
W PINE	9	0	0	0	0	9
TOTAL	144	0	0	0	73	217

LISTING OF ALL STANDS TO BE REGENERATED WITHOUT HARVEST

ST-NBR	SCTN	TWN RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
13-00	01	139 37-W	000	56	104	1	009	ELM	2.2	00	0	0	W PINE	PLANT
02-00	07	139 36-W	000	44	069	1	042	ASH	1.2	01	3	1	WH SPR	PLANT

TOTAL STANDS 2 TOTAL ACRES 51

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
10-00	36	135 42-W	000	53	066	4	014	ELM	6.5	29	3	2	ASPEN	SPROUT

TOTAL STANDS 1 TOTAL ACRES 14

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
01-00	01	142 33-W	000	45	064	1	036	ASH	4.3	00	0	0
11-00	24	142 32-W	000	50	049	1	009	ELM	3.0	00	0	0

TOTAL STANDS 2 TOTAL ACRES 45

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
03-00	03	142 38-W	000	40	158	6	013	ASH	9.3	00	0	0	WCEDAR	PLANT
01-00	16	140 37-W	000	48	121	4	057	ELM	6.4	99	1	1	WH SPR	PLANT
08-00	17	140 37-W	000	48	121	4	011	RD ELM	6.4	99	1	1	GR ASH	SPROUT
14-00	09	140 37-W	000	48	121	4	023	ELM	6.4	99	1	1	BL SPR	PLANT
19-00	17	140 37-W	000	43	116	2	007	ELM	4.3	99	1	2	ASPEN	SPROUT
06-00	23	140 37-W	000	38	113	2	006	ASH	2.0	00	0	0	ASH	SPROUT
14-00	28	140 37-W	000	47	112	2	007	ASH	3.5	00	0	0	ASPEN	SPROUT
01-00	28	140 37-W	000	47	112	3	014	ASH	4.7	00	0	0	ASPEN	SPROUT
16-00	27	140 37-W	000	47	112	3	014	ASH	4.7	00	0	0	ASPEN	SPROUT

TOTAL STANDS 9 TOTAL ACRES 152

ASPEN

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:ASPEN (TREMB-POPLR-WHITE) ROTATION AGE: 40

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	4414	16091	12782	12494	12213	11938	11670	11407	11150	10900	10655
11-20	5443	4414	16091	12782	12494	12213	11938	11670	11407	11150	10900
21-30	316	5443	4414	16091	12782	12494	12213	11938	11670	11407	11150
31-40	645	316	5443	4414	11244	10992	10744	10502	10266	10035	9809
41-50	8765	645	316	4074	00	00	00	00	00	00	00
51-60	25084	8765	645	00	00	00	00	00	00	00	00
61-70	7949	16501	8765	00	00	00	00	00	00	00	00
71-80	498	00	2546	00	00	00	00	00	00	00	00
81-90	14	00	00	00	00	00	00	00	00	00	00
91-100	00	00	00	00	00	00	00	00	00	00	00
100+	00	00	00	00	00	00	00	00	00	00	00
CCB TOTAL	53128	52175	51002	49855	48733	47637	46565	45517	44493	43492	42514
HARVEST	17044	13957	13643	13336	13036	12743	12456	12176	11902	11634	11372
CVN	1963	1606	1570	1535	1500	1467	1434	1401	1370	1339	1309
UNCHG	15081	12349	12071	11800	11534	11275	11021	10773	10531	10294	10062
ADDS	529	433	423	413	404	395	386	377	369	361	353
NONCOM	304										
CVN	72										
UNCHG	232										
ADDS	249										
FUT 0-10	16091	12782	12494	12213	11938	11670	11407	11150	10900	10655	10415

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:ASPEN (TREMB-POPLR-WHITE)

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	53128
10 YEAR ALLOWABLE CUT ACREAGE	14211
ANNUAL ALLOWABLE CUT ACREAGE	1421
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	1963

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

NOR HW	N PINE	J PINE	WH SPR
80	1055	389	439

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: ASPEN (TREMB-POPLR-WHITE)

TOTAL ACRES IN TYPE: 53128
10 YEAR ALLOWABLE CUT: 14211
ANNUAL ALLOWABLE CUT: 1421

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
ASPEN	12	0	0	0	15301	15313
NOR HW	0	0	80	0	0	80
N PINE	1036	0	67	0	9	1112
J PINE	389	0	0	0	0	389
WH SPR	426	0	28	0	0	454
TOTAL	1863	0	175	0	15310	17348

LISTING OF ALL STANDS TO BE REGENERATED WITHOUT HARVEST

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
11-00	16	141	36-W	000	70	058	2	026	ASPEN	3.0	27	4	1	ASPEN	SPROUT
06-00	24	141	36-W	000	63	034	1	021	ASPEN	1.5	00	0	0	ASPEN	SPROUT

TOTAL STANDS 2 TOTAL ACRES 47

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
30-00	36	141	36-W	000	68	056	3	015	ASPEN	10.0	27	5	3	WH SPR	UNDERS
16-00	11	142	39-W	000	63	054	1	018	ASPEN	3.0	27	1	1	ASPEN	SPROUT
15-00	11	142	39-W	000	63	054	2	021	ASPEN	2.7	27	1	1	ASPEN	SPROUT
04-00	01	141	37-W	000	48	057	1	018	ASPEN	7.0	00	0	0	ASPEN	SPROUT
05-00	21	142	32-W	000	70	058	2	057	ASPEN	7.0	00	0	0	N PINE	UNDERS
03-00	16	141	35-W	000	60	056	1	061	ASPEN	4.2	40	2	0	ASPEN	SPROUT
02-00	05	141	32-W	000	70	047	1	021	ASPEN	4.0	00	0	0	ASPEN	SPROUT
01-00	32	142	37-W	000	63	041	2	046	ASPEN	4.7	27	3	1	ASPEN	SPROUT

TOTAL STANDS 8 TOTAL ACRES 257

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
02-00	11	142	39-W	000	65	060	7	052	ASPEN	18.2	27	2	1
11-00	11	142	39-W	000	65	060	6	015	ASPEN	18.2	27	2	1
12-00	16	141	36-W	000	70	058	2	027	ASPEN	3.0	27	4	1
02-00	08	139	37-W	000	47	057	2	023	ASPEN	1.3	25	3	1
14-00	35	141	36-W	000	69	056	1	046	ASPEN	3.6	27	3	3
03-00	18	142	32-W	000	70	058	1	050	ASPEN	3.6	00	0	0
06-00	21	142	32-W	000	70	058	2	090	ASPEN	7.0	00	0	0
02-00	18	142	32-W	000	70	058	1	075	ASPEN	3.6	00	0	0
21-00	20	141	36-W	000	69	049	2	106	ASPEN	7.1	27	5	3
31-00	27	141	36-W	000	67	046	1	016	ASPEN	5.8	27	2	1
06-00	36	141	36-W	000	70	044	2	109	ASPEN	5.1	27	4	2
03-00	26	139	32-W	000	91	030	2	041	ASPEN	7.7	40	2	0
01-00	24	137	45-W	000	45	024	2	041	ASPEN	11.0	00	0	0
03-00	29	142	32-W	000	70	022	2	306	ASPEN	0.0	99	2	0
04-00	20	142	32-W	000	60	022	2	074	ASPEN	0.0	00	0	0

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
07-00	30	142	32-W	000	70	019	2	025	ASPEN	0.0	00	0	0
08-00	30	142	32-W	000	70	019	2	015	ASPEN	0.0	00	0	0
17-00	24	142	32-W	000	65	014	2	046	ASPEN	0.8	00	0	0
08-00	11	142	32-W	000	70	016	9	098	ASPEN	0.0	00	0	0

TOTAL STANDS 19 TOTAL ACRES 1255

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
01-00	17	142	38-W	000	72	088	5	014	ASPEN	9.7	27	3	3	ASPEN	SPROUT
08-00	07	139	36-W	000	61	078	7	006	ASPEN	25.3	27	3	1	ASPEN	SPROUT
15-00	29	140	37-W	000	69	076	5	056	ASPEN	21.5	27	3	1	ASPEN	SPROUT
02-00	10	139	37-W	000	61	075	4	019	ASPEN	13.7	16	2	1	ASPEN	SPROUT
32-00	19	140	37-W	000	50	075	3	003	ASPEN	7.3	26	3	3	ASPEN	SPROUT
07-00	19	140	37-W	000	63	074	7	007	ASPEN	19.2	27	3	3	ASPEN	SPROUT
03-00	16	140	37-W	000	69	074	4	080	ASPEN	7.6	26	4	2	NOR HW	UNDERS
10-00	30	140	37-W	000	63	074	7	010	ASPEN	19.2	27	3	3	N PINE	UNDERS
05-00	03	142	38-W	000	77	078	7	011	ASPEN	31.0	27	4	3	ASPEN	SPROUT
03-00	10	142	38-W	000	70	078	8	007	ASPEN	33.6	26	2	1	ASPEN	SPROUT
03-00	07	142	38-W	000	60	078	3	039	ASPEN	5.0	27	3	3	ASPEN	SPROUT
05-00	16	141	36-W	000	58	074	5	010	ASPEN	15.6	27	5	3	ASPEN	SPROUT
23-00	15	141	36-W	000	58	074	5	025	ASPEN	15.6	27	4	2	ASPEN	SPROUT
15-00	35	141	36-W	000	59	073	7	007	ASPEN	14.0	25	2	1	N PINE	PLANT
05-00	18	141	36-W	000	61	073	6	021	ASPEN	18.6	27	2	1	ASPEN	SPROUT
01-00	15	142	38-W	000	72	077	4	043	ASPEN	10.0	27	1	1	ASPEN	SPROUT
13-00	35	140	37-W	000	68	073	3	009	ASPEN	5.0	27	2	1	ASPEN	SPROUT
16-00	21	140	37-W	000	56	073	4	006	ASPEN	9.6	27	3	1	ASPEN	SPROUT
14-00	21	140	37-W	000	61	071	6	017	ASPEN	14.2	27	2	1	ASPEN	SPROUT
24-00	20	140	37-W	000	68	071	8	010	ASPEN	13.5	00	0	0	N PINE	PLANT
19-00	22	140	37-W	000	61	071	6	023	ASPEN	14.2	27	2	1	ASPEN	SPROUT
13-00	34	140	37-W	000	60	071	5	012	ASPEN	7.9	27	3	1	ASPEN	PLANT
12-00	34	140	37-W	000	60	071	5	041	ASPEN	7.9	27	3	1	ASPEN	SPROUT
07-00	36	138	38-W	000	66	071	5	014	ASPEN	20.6	27	2	1	ASPEN	SPROUT
21-00	21	140	37-W	000	63	070	5	012	ASPEN	14.7	26	2	1	ASPEN	SPROUT
24-00	19	140	37-W	000	50	070	4	077	ASPEN	7.8	27	2	2	ASPEN	SPROUT
12-00	18	140	37-W	000	50	070	4	021	ASPEN	8.7	27	2	2	ASPEN	SPROUT
16-00	22	141	36-W	000	58	070	4	013	ASPEN	9.3	27	3	1	ASPEN	SPROUT
04-00	23	141	36-W	000	58	070	4	008	ASPEN	16.4	27	3	1	ASPEN	SPROUT
06-00	25	141	36-W	000	64	070	3	017	ASPEN	12.7	27	4	1	ASPEN	SPROUT
08-00	15	141	36-W	000	51	069	4	113	ASPEN	13.6	27	3	1	N PINE	PLANT
07-00	15	141	36-W	000	51	069	4	012	ASPEN	13.6	27	3	1	ASPEN	SPROUT
25-00	35	140	37-W	000	52	069	4	011	ASPEN	5.6	27	4	1	ASPEN	SPROUT
01-00	35	140	37-W	000	52	069	4	023	ASPEN	7.8	27	4	1	ASPEN	SPROUT
03-00	34	140	37-W	000	52	069	4	015	ASPEN	6.2	27	4	1	ASPEN	SPROUT
08-00	02	139	37-W	000	72	067	5	169	ASPEN	8.0	25	2	1	ASPEN	SPROUT
03-00	11	142	39-W	000	65	069	5	011	ASPEN	12.0	25	1	1	ASPEN	SPROUT
01-00	11	142	39-W	000	65	069	5	012	ASPEN	12.0	25	1	1	ASPEN	SPROUT
03-00	36	138	37-W	000	62	068	3	071	ASPEN	13.5	27	3	2	ASPEN	SPROUT
01-00	36	142	39-W	000	55	067	1	008	ASPEN	3.7	26	3	1	ASPEN	SPROUT
16-00	23	140	37-W	000	55	067	4	006	ASPEN	12.3	27	3	1	ASPEN	SPROUT
21-00	23	140	37-W	000	55	067	4	007	ASPEN	12.3	27	3	1	ASPEN	SPROUT
14-00	23	140	37-W	000	55	067	4	007	ASPEN	12.3	27	3	1	ASPEN	SPROUT
08-00	23	140	37-W	000	55	067	4	023	ASPEN	10.9	27	3	1	N PINE	PLANT
03-00	12	142	37-W	000	53	068	5	013	ASPEN	16.1	27	2	1	ASPEN	SPROUT
03-00	02	142	37-W	000	66	067	8	025	ASPEN	23.6	27	4	3	ASPEN	SPROUT
14-00	36	142	36-W	000	55	067	5	028	ASPEN	9.9	27	2	1	ASPEN	SPROUT
01-00	26	142	37-W	000	57	066	5	005	ASPEN	12.0	27	4	2	ASPEN	SPROUT
02-00	26	142	37-W	000	59	066	6	048	ASPEN	11.8	27	4	2	ASPEN	SPROUT
03-00	21	140	37-W	000	68	066	6	010	ASPEN	22.0	27	3	1	ASPEN	SPROUT
16-00	19	140	37-W	000	59	066	5	012	ASPEN	12.4	26	3	1	ASPEN	SPROUT
17-00	29	140	37-W	000	68	066	6	011	ASPEN	20.0	27	3	1	ASPEN	SPROUT
20-00	28	140	37-W	000	68	066	6	091	ASPEN	20.0	27	3	1	ASPEN	SPROUT
17-00	22	141	36-W	000	66	066	5	054	ASPEN	11.4	27	4	1	N PINE	PLANT
11-00	23	141	36-W	000	66	066	5	015	ASPEN	8.7	27	4	1	ASPEN	SPROUT
01-00	23	141	36-W	000	60	066	5	071	ASPEN	10.8	27	4	1	ASPEN	SPROUT

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
30-00	27	141	36-W	000	60	066	3	009	ASPEN	7.9	27	3	2	N PINE	PLANT
24-00	26	141	36-W	000	60	066	5	062	ASPEN	10.8	27	4	2	ASPEN	SPROUT
31-00	22	141	36-W	000	64	065	4	003	ASPEN	8.0	27	3	1	ASPEN	SPROUT
28-00	16	141	36-W	000	61	065	4	003	ASPEN	13.5	27	4	2	ASPEN	SPROUT
21-00	16	141	36-W	000	61	065	3	007	ASPEN	13.5	27	4	2	ASPEN	SPROUT
05-00	29	140	37-W	000	66	065	7	039	ASPEN	9.6	26	3	1	ASPEN	SPROUT
16-00	29	140	37-W	000	69	065	5	007	ASPEN	10.3	27	2	0	ASPEN	SPROUT
20-00	20	140	37-W	000	56	065	5	017	ASPEN	10.5	27	3	1	ASPEN	SPROUT
07-00	14	142	37-W	000	62	065	7	008	ASPEN	32.0	27	5	3	ASPEN	SPROUT
01-00	19	142	38-W	000	68	066	4	017	ASPEN	17.2	27	2	1	ASPEN	SPROUT
20-00	11	142	39-W	000	59	065	6	050	ASPEN	13.8	27	3	1	ASPEN	SPROUT
21-00	11	142	39-W	000	59	065	6	010	ASPEN	13.8	27	3	1	ASPEN	SPROUT
02-00	01	142	39-W	000	64	065	6	057	ASPEN	15.3	27	2	1	ASPEN	SPROUT
03-00	02	139	37-W	000	62	065	6	027	LT ASP	18.3	27	1	1	ASPEN	SPROUT
07-00	07	139	36-W	000	65	064	6	089	ASPEN	10.2	27	2	1	ASPEN	SPROUT
06-00	12	142	38-W	000	53	068	4	012	ASPEN	18.0	27	1	1	ASPEN	SPROUT
03-00	23	142	38-W	000	55	067	5	050	ASPEN	16.3	27	1	1	ASPEN	SPROUT
04-00	12	142	38-W	000	53	068	4	045	ASPEN	18.0	27	1	1	N PINE	PLANT
06-00	06	142	38-W	000	55	068	4	005	ASPEN	15.0	00	0	0	ASPEN	SPROUT
09-00	01	142	37-W	000	63	064	7	012	ASPEN	29.2	27	3	2	ASPEN	SPROUT
11-00	12	142	36-W	000	66	064	4	042	ASPEN	6.4	27	2	1	ASPEN	SPROUT
08-00	06	142	38-W	000	55	068	4	009	ASPEN	15.0	00	0	0	N PINE	SPROUT
09-00	35	140	37-W	000	62	064	6	045	ASPEN	10.3	27	2	1	ASPEN	SPROUT
08-00	27	140	37-W	000	65	064	5	017	ASPEN	6.8	27	3	1	ASPEN	SPROUT
19-00	27	140	37-W	000	65	064	5	004	ASPEN	6.8	27	3	1	ASPEN	SPROUT
11-00	29	140	37-W	000	63	064	5	039	ASPEN	13.5	26	3	1	ASPEN	SPROUT
03-00	04	141	33-W	000	65	066	4	040	ASPEN	16.0	40	2	0	ASPEN	SPROUT
01-00	03	141	33-W	000	57	066	4	382	ASPEN	17.0	40	2	0	N PINE	PLANT
03-00	03	141	33-W	000	57	066	4	050	ASPEN	17.0	40	2	0	ASPEN	SPROUT
02-00	04	141	33-W	000	65	066	4	091	ASPEN	16.0	40	2	0	ASPEN	SPROUT
13-00	01	141	37-W	000	53	067	6	013	ASPEN	18.0	00	0	0	N PINE	PLANT
02-00	15	142	32-W	000	62	067	6	022	ASPEN	28.0	00	0	0	ASPEN	SPROUT
09-00	18	142	32-W	000	70	062	6	028	ASPEN	26.8	00	0	0	ASPEN	SPROUT
02-00	35	142	32-W	000	55	067	5	345	ASPEN	13.8	40	2	0	ASPEN	SPROUT
02-00	25	141	36-W	000	60	063	3	009	ASPEN	13.0	27	4	1	ASPEN	SPROUT
04-00	18	141	36-W	000	71	063	5	004	ASPEN	18.7	27	2	1	ASPEN	SPROUT
01-00	22	140	38-W	000	58	063	4	038	ASPEN	9.4	27	3	2	ASPEN	SPROUT
02-00	22	140	38-W	000	58	063	4	062	ASPEN	11.1	27	3	2	ASPEN	SPROUT
07-00	04	142	37-W	000	58	063	4	006	ASPEN	19.3	27	4	2	ASPEN	SPROUT
08-00	03	139	37-W	000	58	063	4	025	ASPEN	5.5	26	1	1	ASPEN	SPROUT
20-00	12	139	37-W	000	58	063	2	010	ASPEN	6.7	00	0	0	ASPEN	SPROUT
23-00	17	140	37-W	000	75	063	5	011	ASPEN	13.5	26	3	2	ASPEN	SPROUT
28-00	19	140	37-W	000	67	063	5	062	ASPEN	14.8	27	3	1	ASPEN	SPROUT
11-00	18	140	37-W	000	67	063	5	044	ASPEN	15.6	27	3	1	ASPEN	SPROUT
12-00	19	140	37-W	000	67	063	5	005	ASPEN	15.6	27	3	1	ASPEN	SPROUT
10-00	17	140	37-W	000	63	062	5	007	ASPEN	4.0	26	3	2	ASPEN	SPROUT
01-00	05	142	37-W	000	65	062	6	050	ASPEN	16.0	27	4	2	ASPEN	SPROUT
05-00	19	142	38-W	000	57	063	3	012	ASPEN	6.0	27	2	1	ASPEN	SPROUT
17-00	07	142	37-W	000	65	062	7	003	ASPEN	28.0	27	3	1	ASPEN	SPROUT
07-00	07	142	37-W	000	65	062	7	017	ASPEN	28.0	27	3	1	ASPEN	SPROUT
10-00	34	140	37-W	000	68	062	6	086	ASPEN	10.2	27	2	1	ASPEN	SPROUT
12-00	27	140	37-W	000	77	062	4	006	LT ASP	4.2	27	1	1	ASPEN	SPROUT
21-00	34	140	37-W	000	80	062	4	005	LT ASP	4.2	27	1	1	ASPEN	SPROUT
26-00	35	140	37-W	000	68	062	6	097	ASPEN	10.5	27	2	1	ASPEN	SPROUT
10-00	27	140	37-W	000	68	062	6	010	ASPEN	10.8	27	2	1	ASPEN	SPROUT
01-00	34	140	37-W	000	68	062	6	020	ASPEN	10.8	27	2	1	ASPEN	SPROUT
14-00	27	140	37-W	000	77	062	4	027	LT ASP	4.2	27	1	1	ASPEN	SPROUT
16-00	16	140	38-W	000	66	062	3	014	ASPEN	8.2	27	2	1	ASPEN	SPROUT
04-00	16	140	38-W	000	66	062	4	046	ASPEN	10.0	27	3	2	ASPEN	SPROUT
08-00	23	141	36-W	000	55	062	2	024	ASPEN	6.5	27	4	1	J PINE	PLANT
21-00	22	141	36-W	000	65	062	5	130	ASPEN	11.1	27	3	1	ASPEN	SPROUT
13-00	19	141	36-W	000	74	062	5	064	ASPEN	19.2	27	2	1	ASPEN	SPROUT
21-00	19	141	36-W	000	71	062	3	009	ASPEN	12.8	26	1	0	ASPEN	SPROUT
10-00	13	142	32-W	000	63	067	6	236	ASPEN	27.0	00	0	0	ASPEN	SPROUT
21-00	27	141	36-W	000	65	062	4	080	ASPEN	9.7	27	3	1	ASPEN	SPROUT
15-00	30	141	36-W	000	74	062	5	034	ASPEN	19.2	00	0	0	ASPEN	SPROUT
28-00	36	141	36-W	000	60	062	4	008	ASPEN	12.8	27	3	2	ASPEN	SPROUT
05-00	10	142	39-W	000	69	062	6	010	ASPEN	19.6	27	2	1	ASPEN	SPROUT
11-00	28	141	36-W	000	60	061	7	016	ASPEN	30.3	26	1	0	ASPEN	SPROUT

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
15-00	06	142	32-W	000	63	064	4	008	ASPEN	14.0	00	0	0	ASPEN	SPROUT
13-00	06	142	32-W	000	63	064	4	010	ASPEN	14.0	00	0	0	ASPEN	SPROUT
19-00	06	142	32-W	000	63	064	4	019	ASPEN	14.0	00	0	0	ASPEN	SPROUT
28-00	15	141	36-W	000	68	061	5	008	ASPEN	22.6	27	4	2	ASPEN	SPROUT
15-00	19	141	36-W	000	67	061	7	008	ASPEN	25.6	26	3	2	ASPEN	SPROUT
17-00	15	141	36-W	000	68	061	5	019	ASPEN	20.3	27	4	2	ASPEN	SPROUT
09-00	04	140	38-W	000	60	061	2	006	ASPEN	5.2	27	4	2	ASPEN	SPROUT
12-00	35	140	37-W	000	67	061	4	028	ASPEN	4.6	27	2	1	ASPEN	SPROUT
13-00	12	142	36-W	000	58	061	4	009	ASPEN	10.0	27	2	1	ASPEN	SPROUT
06-00	04	142	37-W	000	65	061	4	066	ASPEN	11.7	27	4	2	ASPEN	SPROUT
09-00	15	142	37-W	000	62	061	7	012	ASPEN	18.1	27	4	2	ASPEN	SPROUT
06-00	14	142	37-W	000	63	061	6	011	ASPEN	21.0	27	3	1	ASPEN	SPROUT
01-00	14	142	37-W	000	63	061	6	046	ASPEN	21.0	27	3	1	ASPEN	SPROUT
01-00	20	142	38-W	000	70	062	6	066	ASPEN	26.0	26	1	1	ASPEN	SPROUT
04-00	06	142	37-W	000	67	061	6	008	ASPEN	13.0	27	3	2	ASPEN	SPROUT
08-00	11	142	37-W	000	63	061	6	033	ASPEN	21.0	27	3	1	ASPEN	SPROUT
25-00	08	140	37-W	000	68	061	6	009	ASPEN	25.3	27	3	1	ASPEN	SPROUT
01-00	04	139	37-W	000	67	061	4	111	ASPEN	6.6	27	1	1	ASPEN	SPROUT
11-00	09	140	37-W	000	66	060	6	015	ASPEN	23.9	26	3	1	ASPEN	SPROUT
04-00	21	140	37-W	000	57	060	4	060	ASPEN	7.4	27	2	1	ASPEN	SPROUT
02-00	01	142	37-W	000	70	060	7	029	ASPEN	25.1	27	3	2	ASPEN	SPROUT
08-00	25	142	38-W	000	65	061	4	023	ASPEN	15.0	26	2	1	ASPEN	SPROUT
02-00	18	142	37-W	000	71	060	3	035	ASPEN	10.8	27	3	2	ASPEN	SPROUT
10-00	03	142	37-W	000	65	060	5	028	ASPEN	18.0	27	3	1	ASPEN	SPROUT
06-00	15	142	37-W	000	63	060	8	012	ASPEN	27.3	27	4	3	ASPEN	SPROUT
03-00	24	142	38-W	000	65	061	4	155	ASPEN	15.0	26	2	1	ASPEN	SPROUT
01-00	09	142	37-W	000	62	060	6	008	ASPEN	14.8	27	4	2	ASPEN	SPROUT
05-00	18	142	37-W	000	80	060	7	008	ASPEN	33.3	27	3	1	ASPEN	SPROUT
06-00	26	142	37-W	000	62	060	6	020	ASPEN	23.5	27	4	2	ASPEN	SPROUT
04-00	01	142	37-W	000	70	060	7	051	ASPEN	29.2	27	3	2	ASPEN	SPROUT
05-00	26	142	37-W	000	62	060	6	024	ASPEN	23.5	27	4	2	ASPEN	SPROUT
12-00	16	140	38-W	000	66	060	2	012	ASPEN	3.7	27	2	1	ASPEN	SPROUT
12-00	28	140	37-W	000	57	060	4	026	ASPEN	7.4	27	2	1	ASPEN	SPROUT
06-00	16	140	38-W	000	66	060	3	064	ASPEN	5.3	27	2	1	ASPEN	SPROUT
10-00	15	141	36-W	000	59	060	4	030	ASPEN	18.5	27	3	1	ASPEN	SPROUT
11-00	22	141	36-W	000	63	060	7	041	ASPEN	18.0	27	3	1	ASPEN	SPROUT
10-00	22	141	36-W	000	64	060	3	047	ASPEN	9.2	00	0	0	ASPEN	SPROUT
02-00	29	142	32-W	000	60	063	5	022	ASPEN	17.7	00	0	0	WH SPR	PLANT
01-00	07	141	39-W	000	63	060	4	007	ASPEN	14.2	27	4	2	ASPEN	SPROUT
10-00	33	141	36-W	000	65	060	6	015	ASPEN	24.7	27	3	1	ASPEN	SPROUT
02-00	04	142	39-W	000	63	060	4	025	ASPEN	8.5	27	2	1	ASPEN	SPROUT
05-00	11	142	39-W	000	65	060	6	079	ASPEN	18.2	27	2	1	ASPEN	SPROUT
10-00	03	142	32-W	000	55	064	8	071	ASPEN	29.3	00	0	0	ASPEN	SPROUT
11-00	03	142	32-W	000	65	064	5	011	ASPEN	23.3	00	0	0	ASPEN	SPROUT
29-00	36	141	36-W	000	66	059	2	013	ASPEN	7.7	27	1	0	ASPEN	SPROUT
01-00	23	141	40-W	000	62	059	7	005	ASPEN	28.0	27	4	2	ASPEN	SPROUT
27-00	36	141	36-W	000	64	059	6	016	ASPEN	19.5	27	1	0	ASPEN	SPROUT
06-00	01	141	36-W	000	70	061	5	005	ASPEN	16.0	00	0	0	ASPEN	SPROUT
12-00	10	141	33-W	000	60	061	5	036	ASPEN	22.0	40	2	0	J PINE	PLANT
01-00	04	141	33-W	000	65	061	4	227	ASPEN	16.0	40	2	0	ASPEN	SPROUT
04-00	10	141	33-W	000	60	061	5	170	ASPEN	22.0	40	2	0	ASPEN	SPROUT
01-00	10	141	33-W	000	60	061	5	022	ASPEN	22.0	40	2	0	WH SPR	PLANT
17-00	34	140	37-W	000	68	059	1	005	ASPEN	3.3	27	1	0	ASPEN	SPROUT
19-00	34	140	37-W	000	68	059	6	005	ASPEN	14.0	25	1	1	ASPEN	SPROUT
01-00	21	142	38-W	000	65	060	6	071	ASPEN	25.0	26	2	1	ASPEN	SPROUT
02-00	21	142	38-W	000	65	060	6	017	ASPEN	25.0	26	2	1	ASPEN	SPROUT
07-00	26	142	37-W	000	65	059	5	020	ASPEN	12.4	27	3	2	ASPEN	SPROUT
01-00	22	142	37-W	000	64	059	7	033	ASPEN	25.9	27	3	2	ASPEN	SPROUT
05-00	20	142	38-W	000	65	060	6	041	ASPEN	25.0	26	2	1	ASPEN	SPROUT
02-00	33	142	38-W	000	66	060	6	008	ASPEN	24.0	26	1	1	ASPEN	SPROUT
01-00	33	142	38-W	000	66	060	6	008	ASPEN	31.8	26	1	1	ASPEN	SPROUT
10-00	36	142	36-W	000	68	059	5	023	ASPEN	17.7	27	2	1	ASPEN	SPROUT
01-00	09	142	33-W	000	60	063	4	236	ASPEN	14.8	00	0	0	ASPEN	SPROUT
08-00	34	142	33-W	000	65	063	5	006	ASPEN	21.3	00	0	0	ASPEN	SPROUT
08-00	26	142	33-W	000	50	063	2	242	ASPEN	3.6	40	4	0	ASPEN	SPROUT
07-00	09	142	33-W	000	60	063	4	123	ASPEN	14.8	00	0	0	ASPEN	SPROUT
07-00	34	142	33-W	000	65	063	5	027	ASPEN	21.3	00	0	0	ASPEN	SPROUT
01-00	26	142	33-W	000	50	063	2	074	ASPEN	3.6	40	4	0	ASPEN	SPROUT
03-00	36	142	32-W	000	58	062	5	421	ASPEN	13.8	00	0	0	ASPEN	SPROUT

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
09-00	09	142	33-W	000	60	063	4	037	ASPEN	14.8	00	0	0	ASPEN	SPROUT
11-00	34	142	33-W	000	65	063	5	029	ASPEN	21.3	00	0	0	ASPEN	SPROUT
02-00	36	142	32-W	000	55	062	4	019	ASPEN	16.0	40	4	0	ASPEN	SPROUT
04-00	14	142	33-W	000	58	062	5	035	ASPEN	18.7	00	0	0	J PINE	PLANT
01-00	14	142	33-W	000	58	062	5	369	ASPEN	18.7	00	0	0	ASPEN	SPROUT
02-00	12	142	37-W	000	65	059	5	031	ASPEN	12.6	27	3	1	ASPEN	SPROUT
02-00	25	142	38-W	000	52	059	3	068	ASPEN	8.5	27	1	1	ASPEN	SPROUT
09-00	12	142	37-W	000	65	059	4	012	ASPEN	8.9	27	3	1	ASPEN	SPROUT
07-00	22	142	37-W	000	66	059	4	017	ASPEN	11.0	27	4	2	ASPEN	SPROUT
10-00	26	140	37-W	000	70	058	5	013	ASPEN	14.5	27	4	2	ASPEN	SPROUT
11-00	16	141	34-W	000	65	062	5	065	ASPEN	20.0	00	0	0	ASPEN	SPROUT
16-00	17	141	36-W	000	68	058	4	070	ASPEN	10.0	26	1	1	ASPEN	SPROUT
14-00	23	141	36-W	000	63	058	7	014	ASPEN	33.0	27	3	1	ASPEN	SPROUT
22-00	28	141	36-W	000	67	058	9	029	ASPEN	40.6	26	1	0	ASPEN	SPROUT
21-00	34	141	36-W	000	63	058	4	008	ASPEN	18.1	27	3	1	ASPEN	SPROUT
03-00	09	142	32-W	000	62	061	5	054	ASPEN	10.4	00	0	0	ASPEN	SPROUT
04-00	18	142	32-W	000	70	062	6	034	ASPEN	26.8	00	0	0	ASPEN	SPROUT
04-00	32	142	32-W	000	60	062	6	389	ASPEN	26.6	00	0	0	ASPEN	SPROUT
06-00	09	140	37-W	000	66	058	5	010	ASPEN	15.7	26	1	0	ASPEN	SPROUT
03-00	07	140	37-W	000	58	058	5	011	ASPEN	8.5	26	2	0	ASPEN	SPROUT
04-00	36	139	40-W	000	63	057	5	078	ASPEN	22.8	27	3	2	ASPEN	SPROUT
04-00	24	142	32-W	000	75	057	3	154	ASPEN	11.5	27	3	1	ASPEN	SPROUT
18-00	35	141	36-W	000	66	057	2	012	ASPEN	7.5	27	4	3	ASPEN	SPROUT
13-00	05	142	32-W	000	70	061	7	034	ASPEN	30.0	00	0	0	ASPEN	SPROUT
02-00	29	141	36-W	000	64	057	6	060	ASPEN	26.8	25	2	1	ASPEN	SPROUT
16-00	14	142	37-W	000	61	057	5	010	ASPEN	14.1	27	3	2	ASPEN	SPROUT
10-00	11	142	37-W	000	67	057	3	014	ASPEN	11.7	27	3	1	ASPEN	SPROUT
06-00	24	142	37-W	000	64	057	7	015	ASPEN	26.3	27	2	1	ASPEN	SPROUT
11-00	27	142	33-W	000	65	061	6	087	ASPEN	19.6	00	0	0	ASPEN	SPROUT
08-00	27	142	33-W	000	70	061	6	145	ASPEN	19.6	00	0	0	ASPEN	SPROUT
07-00	27	142	33-W	000	70	061	6	151	ASPEN	19.6	00	0	0	ASPEN	SPROUT
04-00	11	139	37-W	000	75	057	3	016	ASPEN	5.2	00	0	0	ASPEN	SPROUT
10-00	09	139	37-W	000	64	056	4	088	ASPEN	9.7	27	3	1	ASPEN	SPROUT
02-00	12	142	33-W	000	68	060	6	196	ASPEN	26.4	00	0	0	ASPEN	SPROUT
06-00	01	142	33-W	000	70	060	5	041	ASPEN	18.0	00	0	0	ASPEN	SPROUT
11-00	36	142	34-W	000	69	059	6	088	ASPEN	22.6	00	0	0	ASPEN	SPROUT
04-00	34	142	33-W	000	65	060	6	115	ASPEN	27.5	00	0	0	ASPEN	SPROUT
03-00	34	142	33-W	000	65	060	6	127	ASPEN	27.5	00	0	0	ASPEN	SPROUT
15-00	12	142	37-W	000	68	056	5	015	ASPEN	17.0	27	3	1	ASPEN	SPROUT
03-00	22	142	37-W	000	62	056	7	011	ASPEN	26.0	27	3	2	ASPEN	SPROUT
02-00	17	142	38-W	000	72	060	6	035	ASPEN	21.2	27	2	1	ASPEN	SPROUT
05-00	03	141	32-W	000	60	059	7	098	ASPEN	22.5	00	0	0	ASPEN	SPROUT
09-00	20	141	36-W	000	67	056	5	036	ASPEN	24.4	27	2	1	ASPEN	SPROUT
14-00	19	141	36-W	000	72	056	7	015	ASPEN	26.0	26	1	1	ASPEN	SPROUT
04-00	36	141	36-W	000	70	056	6	075	ASPEN	7.8	27	3	1	ASPEN	SPROUT
05-00	06	142	32-W	000	60	059	3	038	ASPEN	7.2	00	0	0	WH SPR	PLANT
03-00	24	142	32-W	000	50	059	3	035	ASPEN	12.2	00	0	0	N PINE	PLANT
04-00	12	142	32-W	000	55	061	7	014	ASPEN	16.0	00	0	0	WH SPR	PLANT
02-00	33	142	32-W	000	70	060	8	085	ASPEN	34.5	00	0	0	ASPEN	SPROUT
02-00	11	142	32-W	000	65	061	7	028	ASPEN	25.0	00	0	0	ASPEN	SPROUT
13-00	33	142	32-W	000	70	060	8	047	ASPEN	34.5	00	0	0	ASPEN	SPROUT
02-00	10	142	32-W	000	56	059	6	215	ASPEN	23.2	00	0	0	ASPEN	SPROUT
02-00	20	142	39-W	000	70	056	8	010	ASPEN	38.0	27	3	2	ASPEN	SPROUT
20-00	22	140	37-W	000	65	055	6	012	ASPEN	28.3	26	2	1	ASPEN	SPROUT
01-00	29	142	32-W	000	61	058	6	025	ASPEN	24.2	00	0	0	ASPEN	SPROUT
07-00	29	142	32-W	000	61	058	5	057	ASPEN	14.5	00	0	0	ASPEN	SPROUT
22-00	35	141	36-W	000	68	055	5	018	ASPEN	17.7	27	3	0	ASPEN	SPROUT
08-00	34	141	36-W	000	69	055	7	017	ASPEN	23.5	27	3	2	ASPEN	SPROUT
08-00	16	141	35-W	000	74	059	3	009	ASPEN	5.3	40	2	0	ASPEN	SPROUT
03-00	21	141	36-W	000	72	055	6	011	ASPEN	26.7	27	4	1	ASPEN	SPROUT
01-00	12	142	39-W	000	76	055	4	030	ASPEN	8.6	27	2	1	ASPEN	SPROUT
06-00	07	142	37-W	000	69	055	5	030	ASPEN	18.6	27	4	2	ASPEN	SPROUT
02-00	03	142	37-W	000	61	055	4	019	ASPEN	8.0	27	4	2	N PINE	PLANT
02-00	05	142	37-W	000	75	055	6	017	ASPEN	22.5	27	3	2	ASPEN	SPROUT
07-00	03	142	37-W	000	61	055	4	015	ASPEN	9.8	27	4	2	N PINE	PLANT
05-00	12	142	37-W	000	67	055	5	043	ASPEN	22.7	27	4	2	ASPEN	SPROUT
03-00	19	142	37-W	000	66	055	6	013	ASPEN	23.7	27	3	2	WH SPR	UNDERS
13-00	17	142	33-W	000	74	060	5	022	ASPEN	15.6	40	2	0	ASPEN	SPROUT
05-00	17	142	33-W	000	74	060	5	108	ASPEN	15.6	40	2	0	ASPEN	SPROUT

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
03-00	18	138	39-W	000	71	055	4	031	ASPEN	14.5	27	3	2	ASPEN	SPROUT
06-00	36	135	43-W	000	63	055	4	016	ASPEN	16.6	27	4	3	ASPEN	SPROUT
05-00	16	132	38-W	000	65	054	7	067	ASPEN	22.2	27	5	1	ASPEN	SPROUT
06-00	33	142	33-W	000	65	059	6	032	ASPEN	21.3	00	0	0	ASPEN	SPROUT
01-00	02	142	33-W	000	70	058	5	245	ASPEN	21.7	40	2	0	ASPEN	SPROUT
02-00	16	142	34-W	000	66	058	4	028	ASPEN	17.0	40	2	0	ASPEN	SPROUT
07-00	02	142	33-W	000	70	058	5	009	ASPEN	21.7	40	2	0	ASPEN	SPROUT
07-00	35	142	33-W	000	60	058	7	035	ASPEN	16.3	50	2	0	N PINE	PLANT
04-00	02	142	33-W	000	71	058	5	152	ASPEN	21.7	40	2	0	ASPEN	SPROUT
08-00	35	142	33-W	000	60	058	7	414	ASPEN	16.3	50	2	0	ASPEN	SPROUT
06-00	22	142	37-W	000	60	055	5	015	ASPEN	11.0	27	3	1	ASPEN	SPROUT
02-00	10	142	38-W	000	70	058	8	010	ASPEN	39.0	00	0	0	ASPEN	SPROUT
12-00	11	142	37-W	000	66	054	7	018	ASPEN	21.7	27	4	2	ASPEN	SPROUT
01-00	16	142	38-W	000	78	058	6	056	ASPEN	21.7	27	1	1	ASPEN	SPROUT
10-00	24	142	37-W	000	65	054	7	034	ASPEN	20.9	27	4	2	ASPEN	SPROUT
04-00	10	142	38-W	000	70	058	6	014	ASPEN	22.3	27	2	1	ASPEN	SPROUT
14-00	29	140	37-W	000	74	054	7	016	ASPEN	26.2	27	3	1	ASPEN	SPROUT
04-00	02	141	33-W	000	65	057	3	128	ASPEN	12.9	00	0	0	ASPEN	SPROUT
05-00	02	141	33-W	000	60	057	2	022	ASPEN	8.6	00	0	0	ASPEN	SPROUT
07-00	26	140	39-W	000	71	054	7	023	ASPEN	21.8	27	2	1	ASPEN	SPROUT
03-00	32	140	38-W	000	70	054	4	006	ASPEN	13.0	27	3	2	ASPEN	SPROUT
10-00	02	141	33-W	000	65	057	3	010	ASPEN	12.9	00	0	0	ASPEN	SPROUT
11-00	02	141	33-W	000	65	057	3	008	ASPEN	12.9	00	0	0	ASPEN	SPROUT
03-00	17	141	36-W	000	66	054	5	240	ASPEN	11.6	27	1	1	ASPEN	SPROUT
09-00	01	141	36-W	000	60	056	3	010	ASPEN	12.0	00	0	0	ASPEN	SPROUT
03-00	18	141	36-W	000	66	054	4	022	ASPEN	9.9	27	1	1	ASPEN	SPROUT
02-00	18	141	36-W	000	66	054	4	110	ASPEN	5.4	26	1	0	ASPEN	SPROUT
07-00	25	141	36-W	000	63	054	3	095	ASPEN	9.5	27	4	1	J PINE	PLANT
01-00	09	141	33-W	000	70	056	4	095	ASPEN	19.0	40	2	0	ASPEN	SPROUT
02-00	09	141	33-W	000	70	056	4	069	ASPEN	18.0	40	2	0	ASPEN	SPROUT
12-00	23	141	36-W	000	73	054	3	019	ASPEN	8.7	27	3	2	ASPEN	SPROUT
01-00	02	141	36-W	000	66	056	6	032	ASPEN	24.0	00	0	0	ASPEN	SPROUT
07-00	04	142	32-W	000	60	057	5	010	ASPEN	13.0	40	2	0	N PINE	PLANT
03-00	07	142	32-W	000	58	057	3	035	ASPEN	14.0	00	0	0	J PINE	PLANT
04-00	28	141	36-W	000	58	054	3	060	ASPEN	9.2	26	1	1	ASPEN	SPROUT
11-00	24	141	37-W	000	52	056	5	012	ASPEN	15.0	00	0	0	ASPEN	SPROUT
03-00	04	142	32-W	000	60	057	6	055	ASPEN	18.6	40	2	0	ASPEN	SPROUT
10-00	05	142	32-W	000	70	058	5	020	ASPEN	16.0	00	0	0	ASPEN	SPROUT
16-00	28	141	36-W	000	68	054	9	110	ASPEN	41.8	26	1	1	ASPEN	SPROUT
05-00	09	142	32-W	000	67	057	5	237	ASPEN	17.6	00	0	0	ASPEN	SPROUT
07-00	05	142	32-W	000	70	058	5	095	ASPEN	16.0	00	0	0	N PINE	PLANT
09-00	22	142	32-W	000	60	057	6	048	ASPEN	25.7	26	2	0	WH SPR	PLANT
07-00	21	142	32-W	000	70	058	6	015	ASPEN	30.0	00	0	0	ASPEN	SPROUT
06-00	33	142	32-W	000	70	058	8	042	ASPEN	28.0	00	0	0	ASPEN	SPROUT
05-00	22	142	32-W	000	60	057	6	054	ASPEN	25.7	26	2	0	N PINE	PLANT
08-00	21	142	32-W	000	70	058	6	081	ASPEN	30.0	00	0	0	ASPEN	SPROUT
04-00	21	142	32-W	000	70	058	7	068	ASPEN	30.0	00	0	0	ASPEN	SPROUT
06-00	18	142	32-W	000	60	058	5	029	ASPEN	21.8	00	0	0	J PINE	PLANT
03-00	26	142	32-W	000	60	057	3	012	ASPEN	8.5	00	0	0	ASPEN	SPROUT
02-00	16	142	32-W	000	70	058	1	009	ASPEN	5.0	00	0	0	ASPEN	SPROUT
01-00	17	142	32-W	000	70	058	5	021	ASPEN	15.0	00	0	0	ASPEN	SPROUT
14-00	22	142	32-W	000	60	057	6	016	ASPEN	25.7	26	2	0	J PINE	PLANT
02-00	21	142	32-W	000	80	058	6	085	ASPEN	29.0	00	0	0	ASPEN	SPROUT
03-00	16	142	32-W	000	70	058	4	240	ASPEN	22.0	00	0	0	ASPEN	SPROUT
04-00	16	142	32-W	000	70	058	4	017	ASPEN	22.0	00	0	0	ASPEN	SPROUT
03-00	09	140	37-W	000	66	054	5	019	ASPEN	14.8	26	1	0	ASPEN	SPROUT
14-00	17	140	37-W	000	74	054	7	025	ASPEN	26.2	27	3	1	ASPEN	SPROUT
01-00	21	140	37-W	000	74	054	7	159	ASPEN	26.2	27	3	1	ASPEN	SPROUT
02-00	26	140	33-W	000	74	055	4	020	ASPEN	18.7	27	4	2	ASPEN	SPROUT
16-00	20	140	37-W	000	74	054	7	104	ASPEN	26.2	27	3	1	ASPEN	SPROUT
03-00	20	140	37-W	000	74	054	7	011	ASPEN	26.2	27	3	1	ASPEN	SPROUT
05-00	20	140	37-W	000	74	054	7	120	ASPEN	26.2	27	3	1	ASPEN	SPROUT
24-00	17	140	37-W	000	74	054	7	021	ASPEN	26.2	27	3	1	ASPEN	SPROUT
17-00	11	139	37-W	000	65	054	2	046	ASPEN	3.0	27	2	1	ASPEN	SPROUT
04-00	10	139	37-W	000	68	053	6	042	ASPEN	10.5	27	1	1	ASPEN	SPROUT
03-00	09	139	37-W	000	71	053	5	037	ASPEN	9.8	26	2	1	ASPEN	SPROUT
20-00	36	140	32-W	000	55	054	3	010	ASPEN	13.3	25	1	1	ASPEN	SPROUT
03-00	22	140	37-W	000	65	053	3	020	ASPEN	5.4	27	2	1	ASPEN	SPROUT
07-00	19	142	32-W	000	80	057	5	036	ASPEN	21.4	00	0	0	ASPEN	SPROUT

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
07-00	17	142	32-W	000	65	057	8	117	ASPEN	35.0	40	2	0	N PINE	PLANT
08-00	17	142	32-W	000	70	057	8	175	ASPEN	35.0	40	2	0	ASPEN	SPROUT
05-00	28	142	32-W	000	69	057	5	165	ASPEN	14.3	00	0	0	ASPEN	SPROUT
04-00	28	142	32-W	000	69	057	5	031	ASPEN	14.3	00	0	0	WH SPR	PLANT
05-00	24	142	32-W	000	62	056	4	085	ASPEN	19.3	26	2	0	J PINE	PLANT
02-00	28	142	32-W	000	69	057	5	230	ASPEN	14.3	00	0	0	WH SPR	PLANT
02-00	19	142	32-W	000	80	057	5	370	ASPEN	21.4	00	0	0	ASPEN	SPROUT
12-00	28	142	32-W	000	69	057	5	034	ASPEN	14.3	00	0	0	J PINE	PLANT
05-00	17	142	32-W	000	65	057	6	021	ASPEN	19.3	00	0	0	WH SPR	PLANT
12-00	24	142	32-W	000	62	056	4	010	ASPEN	19.3	40	2	0	ASPEN	SPROUT
02-00	33	141	36-W	000	67	053	6	013	ASPEN	24.3	26	2	1	ASPEN	SPROUT
12-00	30	141	36-W	000	60	053	5	022	ASPEN	15.7	00	0	0	ASPEN	SPROUT

TOTAL STANDS 344 TOTAL ACRES 17044

LISTING OF ALL STANDS TO BE MANAGED ON AN ALL-AGED BASIS

SIZE CLASS: 1

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
04-20	33	142	32-W	000	80	006	9	014	ASPEN	4.5	00	0	0	000
04-10	33	142	32-W	000	80	006	9	007	ASPEN	4.6	00	0	0	000

SIZE CLASS: 4

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
07-00	16	142	33-W	000	80	044	6	004	ASPEN	29.0	40	2	0	153
01-00	21	142	32-W	000	80	058	7	031	ASPEN	30.0	00	0	0	130
03-00	21	142	32-W	000	80	058	7	042	ASPEN	30.0	00	0	0	130
12-00	15	142	33-W	000	80	043	5	031	ASPEN	15.8	40	2	0	130
09-00	19	142	32-W	000	80	058	6	005	ASPEN	17.0	00	0	0	120
05-00	19	142	32-W	000	80	058	6	006	ASPEN	17.0	00	0	0	120
10-00	11	139	37-W	000	60	047	2	032	ASPEN	5.0	25	1	1	077

SIZE CLASS: 5

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
04-00	33	142	32-W	000	80	058	8	302	ASPEN	30.4	00	0	0	160
02-00	32	142	32-W	000	80	058	8	023	ASPEN	30.4	00	0	0	160
04-00	25	142	33-W	000	80	055	8	040	ASPEN	29.2	00	0	0	160
06-00	25	142	33-W	000	80	055	8	040	ASPEN	29.2	00	0	0	160
05-00	25	142	33-W	000	80	055	8	040	ASPEN	29.2	00	0	0	160
03-00	25	142	33-W	000	80	055	8	040	ASPEN	29.2	00	0	0	160
02-00	25	142	33-W	000	80	055	8	379	ASPEN	29.2	00	0	0	160
07-00	25	142	33-W	000	80	055	8	040	ASPEN	29.2	00	0	0	160
15-00	17	140	37-W	000	82	042	7	069	ASPEN	9.6	27	2	1	140
05-00	19	140	37-W	000	51	079	5	038	ASPEN	12.0	27	3	1	116
11-00	05	142	37-W	000	67	057	5	006	ASPEN	17.2	27	4	2	095
07-00	17	141	36-W	000	66	054	4	006	ASPEN	5.5	26	1	0	088
21-00	16	140	37-W	000	61	055	1	013	ASPEN	1.6	27	3	3	030

TOTAL STANDS 22 TOTAL ACRES 1208

PAPER BIRCH

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:PAPER BIRCH ROTATION AGE: 50

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	03	117	61	51	42	35	29	24	20	17	14
11-20	05	03	117	61	51	42	35	29	24	20	17
21-30	00	05	03	117	61	51	42	35	29	24	20
31-40	65	00	05	03	117	61	51	42	35	29	24
41-50	435	65	00	05	03	117	61	51	42	35	29
51-60	1289	435	65	00	05	03	117	61	51	42	35
61-70	1148	1289	435	65	00	05	03	117	61	51	42
71-80	138	435	1268	435	65	00	05	03	117	61	51
81-90	23	00	00	889	435	65	00	05	03	117	61
91-100	00	00	00	00	574	435	65	00	05	03	117
100+	00	00	00	00	00	312	529	412	261	140	38
CCB TOTAL	3106	2349	1954	1626	1353	1126	937	779	648	539	448
HARVEST	874	456	379	315	262	218	182	151	126	105	87
CVN	757	395	328	273	227	189	158	131	109	91	75
UNCHG	117	61	51	42	35	29	24	20	17	14	12
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	68										
CVN	68										
UNCHG	00										
ADDS	00										
FUT 0-10	117	61	51	42	35	29	24	20	17	14	12

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:PAPER BIRCH

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	3106
10 YEAR ALLOWABLE CUT ACREAGE	602
ANNUAL ALLOWABLE CUT ACREAGE	60
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	757

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

J PINE	N PINE	ASPEN	WCEDAR	WH SPR
59	359	283	10	46

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: PAPER BIRCH

TOTAL ACRES IN TYPE: 3106
10 YEAR ALLOWABLE CUT: 602
ANNUAL ALLOWABLE CUT: 60

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
PBIRCH	0	0	0	0	117	117
J PINE	70	0	0	0	0	70
N PINE	406	0	0	0	0	406
ASPEN	0	0	0	0	283	283
WCEDAR	10	0	0	0	0	10
WH SPR	56	0	0	0	0	56
TOTAL	542	0	0	0	400	942

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
13-00	36	138	38-W	000	44	050	1	010	PBIRCH	1.6	00	0	0	WH SPR	PLANT
09-00	16	142	34-W	000	65	053	1	032	PBIRCH	2.7	00	0	0	N PINE	PLANT
18-00	14	139	37-W	000	66	048	2	015	PBIRCH	3.2	00	0	0	N PINE	PLANT
07-00	12	139	37-W	000	50	007	1	011	PBIRCH	0.2	00	0	0	J PINE	PLANT

TOTAL STANDS 4 TOTAL ACRES 68

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
03-00	22	140	38-W	000	55	081	4	023	PBIRCH	8.2	30	1	1	PBIRCH	SPROUT
18-00	19	140	37-W	000	55	077	3	005	PBIRCH	8.0	00	0	0	PBIRCH	SPROUT
07-00	20	140	37-W	000	46	076	4	009	PBIRCH	7.6	00	0	0	J PINE	PLANT
23-00	21	141	36-W	000	54	075	6	008	PBIRCH	12.0	00	0	0	N PINE	PLANT
13-00	16	140	37-W	000	59	074	5	009	PBIRCH	18.3	30	2	1	N PINE	PLANT
06-00	19	140	37-W	000	56	073	5	010	PBIRCH	9.5	30	3	3	N PINE	PLANT
07-00	35	140	37-W	000	48	073	3	024	PBIRCH	5.1	30	1	1	J PINE	PLANT
04-00	18	142	36-W	000	56	073	4	030	PBIRCH	5.1	30	1	1	ASPEN	SPROUT
20-00	35	140	37-W	000	57	072	3	007	PBIRCH	5.4	30	1	5	PBIRCH	SPROUT
05-00	23	141	36-W	000	51	072	3	007	PBIRCH	4.7	30	1	1	PBIRCH	SPROUT
01-00	03	139	37-W	000	55	072	5	024	PBIRCH	8.2	30	1	1	ASPEN	SPROUT
08-00	30	140	37-W	000	52	071	6	005	PBIRCH	20.7	30	3	2	PBIRCH	SPROUT
05-00	11	139	37-W	000	57	069	2	018	PBIRCH	6.0	30	1	1	N PINE	PLANT
11-00	12	139	37-W	000	50	069	2	005	PBIRCH	4.0	30	2	1	ASPEN	SPROUT
02-00	11	139	37-W	000	57	068	5	029	PBIRCH	7.3	30	1	1	PBIRCH	SPROUT
03-00	35	140	37-W	000	61	068	6	009	PBIRCH	10.2	30	1	1	ASPEN	SPROUT
02-00	25	140	39-W	000	36	067	2	010	PBIRCH	3.0	30	1	1	WCEDAR	PLANT
14-00	10	139	37-W	000	57	067	6	069	PBIRCH	9.1	30	1	1	N PINE	PLANT
10-00	23	140	37-W	000	51	067	6	006	PBIRCH	11.3	00	0	0	ASPEN	SPROUT
02-00	18	139	36-W	000	52	066	3	015	PBIRCH	7.2	01	5	1	WH SPR	PLANT
11-00	18	139	36-W	000	52	066	3	013	PBIRCH	7.2	01	5	1	WH SPR	PLANT
09-00	11	139	37-W	000	63	065	3	026	PBIRCH	11.2	30	2	1	J PINE	PLANT
01-00	16	139	37-W	000	63	065	4	100	PBIRCH	8.1	30	2	1	N PINE	PLANT
01-00	17	139	37-W	000	63	065	4	067	PBIRCH	8.1	30	2	1	N PINE	PLANT
16-00	11	139	37-W	000	63	065	3	018	PBIRCH	4.0	00	0	0	WH SPR	PLANT
01-00	29	140	37-W	000	53	065	6	078	PBIRCH	10.2	00	0	0	N PINE	PLANT
06-00	30	140	37-W	000	53	065	6	020	PBIRCH	10.2	00	0	0	PBIRCH	SPROUT
15-00	21	140	37-W	000	66	065	6	032	PBIRCH	12.2	30	1	0	ASPEN	SPROUT
04-00	15	140	37-W	000	58	065	7	005	PBIRCH	9.0	30	2	1	ASPEN	SPROUT
09-00	29	140	37-W	000	53	065	6	017	PBIRCH	10.2	00	0	0	PBIRCH	SPROUT

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
14-00	22	140	37-W	000	58	065	7	143	PBIRCH	9.0	30	2	1	ASPEN	SPROUT
22-00	22	140	37-W	000	58	065	7	029	PBIRCH	9.0	30	2	1	ASPEN	SPROUT
02-00	22	140	37-W	000	66	065	6	004	PBIRCH	12.2	30	1	0	PBIRCH	SPROUT

TOTAL STANDS 33 TOTAL ACRES 874

LISTING OF ALL STANDS TO BE MANAGED ON AN ALL-AGED BASIS

SIZE CLASS: 4

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
25-00	27	141	36-W	000	54	070	1	006	PBIRCH	2.8	00	0	0	046

TOTAL STANDS 1 TOTAL ACRES 6

BALM OF GILEAD

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:BALM OF GILEAD ROTATION AGE: 45

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	14	15	04	04	04	04	04	04	03	03	03
11-20	00	14	15	04	04	04	04	04	04	03	03
21-30	00	00	08	15	04	04	04	04	04	04	03
31-40	04	00	00	02	11	04	04	04	04	04	04
41-50	11	00	00	00	00	06	04	04	04	04	04
51-60	00	00	00	00	00	00	01	00	00	00	00
61-70	00	00	00	00	00	00	00	00	00	00	00
71-80	00	00	00	00	00	00	00	00	00	00	00
81-90	06	00	00	00	00	00	00	00	00	00	00
91-100	00	00	00	00	00	00	00	00	00	00	00
100+	00	00	00	00	00	00	00	00	00	00	00
CCB TOTAL	35	29	27	25	23	22	21	20	19	18	17
HARVEST	21	06	06	06	05	05	05	04	04	04	04
CVN	06	02	02	02	01	01	01	01	01	01	01
UNCHG	15	04	04	04	04	04	04	03	03	03	03
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	00										
FUT 0-10	15	04	04	04	04	04	04	03	03	03	03

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:BALM OF GILEAD

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	35
10 YEAR ALLOWABLE CUT ACREAGE	7
ANNUAL ALLOWABLE CUT ACREAGE	0
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	6

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

ASPEN
06

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: BALM OF GILEAD

TOTAL ACRES IN TYPE:	35
10 YEAR ALLOWABLE CUT:	7
ANNUAL ALLOWABLE CUT:	0

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
ASPEN	0	0	0	0	6	6
BALM	0	0	0	0	15	15
TOTAL	0	0	0	0	21	21

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	% M	REGEN PLANS SPECIES	METHOD
18-00	17	140	37-W	000	55	081	4	006	BALM	5.7	99	2 2	ASPEN	SPROUT
02-00	24	138	39-W	000	61	048	1	005	BALM	4.7	99	3 3	BALM	SPROUT
04-00	03	142	38-W	000	80	050	4	006	BALM	20.0	00	0 0	BALM	SPROUT
08-00	16	141	36-W	000	57	038	2	004	BALM	5.6	27	4 1	BALM	SPROUT

TOTAL STANDS 4 TOTAL ACRES 21

NORTHERN HARDWOODS

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:NORTHERN HDWDS ROTATION AGE: 100

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	43	307	171	170	167	164	162	159	158	155	153
11-20	00	43	307	171	170	167	164	162	159	158	155
21-30	00	00	43	307	171	170	167	164	162	159	158
31-40	18	00	00	43	307	171	170	167	164	162	159
41-50	248	18	00	00	43	307	171	170	167	164	162
51-60	179	248	18	00	00	43	307	171	170	167	164

61-70	479	179	248	18	00	00	43	307	171	170	167
71-80	368	479	179	248	18	00	00	43	307	171	170
81-90	91	368	479	179	248	18	00	00	43	186	171
91-100	156	37	209	479	179	248	18	00	00	00	11
100+	98	00	00	15	303	294	357	193	13	00	00
CCB TOTAL	1680	1679	1654	1630	1606	1582	1559	1536	1514	1492	1470
HARVEST	308	196	194	191	188	185	182	180	177	175	172
CVN	134	85	84	83	82	80	79	78	77	76	75
UNCHG	174	111	110	108	106	105	103	102	100	99	97
ADDS	95	60	60	59	58	57	56	56	55	54	53
NONCOM	159										
CVN	121										
UNCHG	38										
ADDS	00										
FUT 0-10	307	171	170	167	164	162	159	158	155	153	150

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:NORTHERN HDWDS

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	1680
10 YEAR ALLOWABLE CUT ACREAGE	196
ANNUAL ALLOWABLE CUT ACREAGE	19
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	134

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

ASPEN	W PINE
104	30

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: NORTHERN HDWDS

TOTAL ACRES IN TYPE: 1680
10 YEAR ALLOWABLE CUT: 196
ANNUAL ALLOWABLE CUT: 19

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
NOR HW	0	0	13	0	199	212
ASPEN	0	0	0	0	126	126
W PINE	129	0	0	0	0	129
TOTAL	129	0	13	0	325	467

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
07-00	36	135	42-W	000	54	093	7	013	BASSWD	9.3	28	3	2	NOR HW	UNDERS
09-00	36	135	42-W	000	46	077	5	013	BASSWD	6.0	28	3	1	NOR HW	SPROUT
02-00	36	135	42-W	000	44	076	3	012	SGMAPL	5.8	28	3	2	NOR HW	SPROUT
02-00	36	140	39-W	000	66	051	3	099	BASSWD	3.4	00	0	0	W PINE	PLANT
04-00	16	142	36-W	000	56	047	2	022	BASSWD	7.0	00	0	0	ASPEN	SPROUT

TOTAL STANDS 5 TOTAL ACRES 159

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
02-00	24	140	39-W	000	48	074	3	030	BASSWD	4.6	01	4	1
03-00	10	139	37-W	000	58	069	4	059	RD OAK	4.4	00	0	0
01-00	10	139	37-W	000	58	069	4	023	RD OAK	4.4	00	0	0
07-00	10	139	37-W	000	58	069	4	021	RD OAK	4.4	00	0	0
10-00	03	139	37-W	000	58	069	4	026	RD OAK	4.4	00	0	0
01-00	27	135	40-W	000	58	060	3	012	SGMAPL	4.3	00	0	0
09-00	36	140	39-W	000	51	050	2	048	BASSWD	4.5	00	0	0

TOTAL STANDS 7 TOTAL ACRES 219

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
07-00	36	138	37-W	000	51	129	4	060	BR OAK	4.5	00	0	0	NOR HW	SPROUT
04-00	15	142	38-W	000	48	108	5	015	SGMAPL	10.3	00	0	0	NOR HW	SPROUT
11-00	36	138	38-W	000	44	103	5	011	BR OAK	5.6	00	0	0	NOR HW	SPROUT
16-00	16	142	36-W	000	46	100	6	093	BR OAK	7.1	00	0	0	ASPEN	SPROUT
01-00	36	135	42-W	000	51	100	2	009	SGMAPL	1.5	00	0	0	NOR HW	SPROUT
03-00	10	135	41-W	000	52	091	5	004	BASSWD	11.7	28	2	0	NOR HW	SPROUT
09-00	10	139	37-W	000	47	092	3	011	RD OAK	5.2	22	1	1	ASPEN	SPROUT
08-00	10	139	37-W	000	47	092	4	018	RD OAK	5.9	22	1	1	NOR HW	SPROUT
03-00	11	141	40-W	000	46	092	4	021	BR OAK	6.7	00	0	0	NOR HW	SPROUT
17-00	17	140	37-W	000	46	088	4	010	SGMAPL	8.2	40	1	0	NOR HW	SPROUT
26-00	17	140	37-W	000	46	088	4	019	SGMAPL	7.3	40	1	0	NOR HW	SPROUT
02-00	16	139	37-W	000	56	085	4	030	SGMAPL	11.2	00	0	0	W PINE	PLANT
01-00	36	131	37-W	000	48	082	7	007	RD OAK	11.6	00	0	0	NOR HW	SPROUT

TOTAL STANDS 13 TOTAL ACRES 308

LISTING OF ALL STANDS TO BE MANAGED ON AN ALL-AGED BASIS

SIZE CLASS: 1

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
18-00	21	140	37-W	000	55	009	9	008	SGMAPL	13.6	00	0	0	000
01-00	27	140	37-W	000	60	005	9	016	RMAPLE	4.7	00	0	0	000

SIZE CLASS: 4

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
24-00	35	140	37-W	000	55	073	6	004	SGMAPL	11.3	00	0	0	113
06-00	36	141	32-W	000	60	052	5	005	RD OAK	8.0	00	0	0	110
05-00	36	141	32-W	000	60	052	5	016	RD OAK	8.0	00	0	0	110
01-00	36	138	41-W	000	55	049	3	016	BASSWD	7.3	00	0	1	105

SIZE CLASS: 5

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
01-00	04	140	40-W	000	60	063	8	009	BASSWD	10.3	57	1	1	153
01-00	25	142	40-W	000	58	058	5	073	BASSWD	7.8	31	2	1	136
02-00	25	142	40-W	000	58	058	5	019	BASSWD	7.8	31	2	1	136
03-00	16	140	40-W	000	56	068	5	020	BASSWD	4.4	31	1	0	128
02-00	07	141	40-W	000	63	062	6	016	BASSWD	4.5	31	1	1	127
06-00	04	140	38-W	000	45	100	5	040	RD OAK	8.3	01	1	0	125
20-00	27	140	37-W	000	57	061	5	008	RD OAK	5.2	28	1	0	120
03-00	26	140	37-W	000	62	052	6	013	RD OAK	6.1	00	0	0	112
01-00	02	141	33-W	000	55	102	3	019	BASSWD	1.6	00	0	0	075
20-00	34	140	37-W	000	50	079	3	014	RD OAK	9.8	22	1	1	067
04-00	26	142	38-W	000	52	088	2	018	RD OAK	8.0	00	0	0	045

TOTAL STANDS 17 TOTAL ACRES 314

OAK SPECIES

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:OAK SPECIES ROTATION AGE: 90

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	34	363	285	283	281	278	275	273	271	268	265
11-20	42	34	363	285	283	281	278	275	273	271	268
21-30	00	42	34	363	285	283	281	278	275	273	271
31-40	97	00	42	34	363	285	283	281	278	275	273
41-50	106	97	00	42	34	363	285	283	281	278	275
51-60	1119	106	97	00	42	34	363	285	283	281	278
61-70	1165	1119	106	97	00	42	34	363	285	283	281
71-80	342	1165	1119	106	97	00	42	34	363	285	283
81-90	88	137	990	1119	106	97	00	42	34	363	285
91-100	78	00	00	680	1119	106	97	00	42	34	345
100+	16	00	00	00	372	1186	990	788	491	239	00
CCB TOTAL	3087	3063	3036	3009	2982	2955	2928	2902	2876	2850	2824
HARVEST	387	313	310	308	305	302	299	297	294	291	289
CVN	34	27	27	27	27	27	26	26	26	26	25
UNCHG	353	285	283	281	278	275	273	271	268	265	264
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	231										
CVN	221										
UNCHG	10										
ADDS	00										
FUT 0-10	363	285	283	281	278	275	273	271	268	265	264

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:OAK SPECIES

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	3087
10 YEAR ALLOWABLE CUT ACREAGE	315
ANNUAL ALLOWABLE CUT ACREAGE	31
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	34

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

ASPEN	NOR HW
19	15

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: OAK SPECIES

TOTAL ACRES IN TYPE: 3087
10 YEAR ALLOWABLE CUT: 315
ANNUAL ALLOWABLE CUT: 31

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
RD OAK	0	0	0	0	346	346
BR OAK	0	0	17	0	0	17
ASPEN	0	0	0	0	198	198
NOR HW	0	0	15	0	0	15
N PINE	17	0	0	0	0	17
J PINE	25	0	0	0	0	25
TOTAL	42	0	32	0	544	618

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	% M	REGEN SPECIES	PLANS METHOD
09-00	30	139	34-W	000	40	057	3	017	RD OAK	5.2	00	0 0	N PINE	PLANT
06-00	10	142	32-W	000	50	057	1	179	RD OAK	2.8	00	0 0	ASPEN	SPROUT
10-00	36	140	32-W	000	32	010	6	012	BR OAK	1.2	00	0 0	J PINE	PLANT
14-00	36	140	32-W	000	32	008	1	013	BR OAK	0.3	00	0 0	J PINE	PLANT
02-00	36	133	38-W	000	40	004	5	010	RD OAK	1.3	00	0 0	BR OAK	UNDERS

TOTAL STANDS 5 TOTAL ACRES 231

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	% M
13-00	35	141	36-W	000	40	077	2	043	RD OAK	3.7	00	0 0
01-00	03	142	32-W	000	40	079	5	040	RD OAK	13.5	00	0 0
09-00	16	140	38-W	000	59	070	1	022	RD OAK	3.0	01	2 1
01-00	09	142	32-W	000	68	059	1	195	RD OAK	2.2	00	0 0
02-00	03	142	32-W	000	40	059	3	024	RD OAK	9.0	00	0 0
01-00	36	133	37-W	000	40	053	3	022	RD OAK	7.0	00	0 0
20-00	36	140	33-W	000	61	008	1	081	BR OAK	0.3	00	0 0
03-00	36	133	38-W	000	40	005	7	018	RD OAK	1.2	00	0 0

TOTAL STANDS 8 TOTAL ACRES 445

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
06-00	10	139	37-W	000	51	104	6	006	RD OAK	20.0	22	2	1	RD OAK	SPROUT
01-00	16	131	40-W	000	55	103	5	010	RD OAK	7.8	22	3	2	RD OAK	SPROUT
07-00	04	140	38-W	000	45	100	2	004	RD OAK	6.7	00	0	0	RD OAK	SPROUT
01-00	36	132	39-W	000	43	093	5	058	RD OAK	18.6	22	2	2	RD OAK	SPROUT
01-00	29	132	40-W	000	37	092	2	007	BR OAK	7.0	50	5	1	BR OAK	UNDERS
03-00	24	140	39-W	000	42	085	7	017	RD OAK	17.3	22	4	1	RD OAK	SPROUT
05-00	36	139	37-W	000	59	085	6	008	RD OAK	26.4	00	0	0	RD OAK	SPROUT
10-00	36	138	37-W	000	41	084	4	026	RD OAK	5.6	00	0	0	RD OAK	SPROUT
04-00	36	133	38-W	000	42	083	4	004	RD OAK	11.6	00	0	0	RD OAK	SPROUT
08-00	36	139	40-W	000	45	083	4	019	BR OAK	7.2	00	0	0	ASPEN	SPROUT
09-00	36	138	37-W	000	52	082	1	006	RD OAK	2.0	00	0	0	RD OAK	SPROUT
11-00	10	139	37-W	000	56	079	4	027	RD OAK	10.2	22	1	1	RD OAK	SPROUT
07-00	34	140	37-W	000	50	079	2	015	RD OAK	3.7	00	0	0	NOR HW	UNDERS
11-00	14	142	32-W	000	41	078	6	028	RD OAK	14.4	00	0	0	RD OAK	SPROUT
01-00	14	142	32-W	000	41	078	6	152	RD OAK	14.4	00	0	0	RD OAK	SPROUT

TOTAL STANDS 15 TOTAL ACRES 387

LISTING OF ALL STANDS TO BE MANAGED ON AN ALL-AGED BASIS

SIZE CLASS: 5

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
04-00	36	132	39-W	000	39	090	6	013	BR OAK	15.5	00	0	0	142
02-00	29	132	40-W	000	37	092	3	006	BR OAK	17.3	50	5	0	100
05-00	36	133	38-W	000	47	086	3	042	RD OAK	9.2	00	0	0	082

TOTAL STANDS 3 TOTAL ACRES 61

LISTING OF ALL STANDS TO BE THINNED

SIZE CLASS: 5

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
11-00	01	142	33-W	000	63	073	4	019	RD OAK	12.0	00	0	0	130
04-00	36	135	42-W	000	62	052	5	032	RD OAK	10.8	22	2	1	123
02-00	09	139	37-W	000	65	069	4	060	RD OAK	9.3	00	0	0	117
11-00	09	139	37-W	000	63	062	5	025	RD OAK	13.0	00	0	0	110
11-00	03	139	37-W	000	63	063	4	033	RD OAK	10.6	00	0	0	108
08-00	04	139	37-W	000	63	063	4	029	RD OAK	10.6	00	0	0	108

TOTAL STANDS 6 TOTAL ACRES 198

WHITE PINE

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:WHITE PINE ROTATION AGE: 120

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	00	138	24	23	22	21	21	19	18	18	17
11-20	00	00	138	24	23	22	21	21	19	18	18
21-30	00	00	00	138	24	23	22	21	21	19	18

31-40	38	00	00	00	138	24	23	22	21	21	19
41-50	00	38	00	00	00	138	24	23	22	21	21
51-60	00	00	38	00	00	00	138	24	23	22	21
61-70	44	00	00	38	00	00	00	138	24	23	22
71-80	91	44	00	00	38	00	00	00	138	24	23
81-90	144	91	44	00	00	38	00	00	00	138	24
91-100	69	144	91	44	00	00	38	00	00	00	138
100+	67	79	178	225	227	187	148	149	114	80	47
CCB TOTAL	453	534	513	492	472	453	435	417	400	384	368
HARVEST	57	45	44	42	40	39	37	35	34	33	31
CVN	57	45	44	42	40	39	37	35	34	33	31
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	30	24	23	22	21	21	19	18	18	17	16
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	108										
FUT 0-10	138	24	23	22	21	21	19	18	18	17	16

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:WHITE PINE

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	453
10 YEAR ALLOWABLE CUT ACREAGE	38
ANNUAL ALLOWABLE CUT ACREAGE	3
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	57

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

N PINE	J PINE
31	26

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: WHITE PINE

TOTAL ACRES IN TYPE: 453
10 YEAR ALLOWABLE CUT: 38
ANNUAL ALLOWABLE CUT: 3

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
N PINE	31	0	0	0	0	31
J PINE	26	0	0	0	0	26
TOTAL	57	0	0	0	0	57

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
06-00	14	142	33-W	000	53	118	5	016	W PINE	9.5	00	0	0	N PINE	PLANT
04-00	30	142	32-W	000	50	117	5	008	W PINE	9.2	40	2	0	N PINE	PLANT
03-00	23	142	33-W	000	53	118	7	011	W PINE	21.0	00	0	0	J PINE	PLANT
03-00	35	142	33-W	000	50	108	8	007	W PINE	15.5	50	2	0	N PINE	PLANT
02-00	26	142	33-W	000	50	108	6	015	W PINE	13.2	40	2	0	J PINE	PLANT

TOTAL STANDS 5 TOTAL ACRES 57

LISTING OF ALL STANDS TO BE THINNED

SIZE CLASS: 4

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
19-00	09	139	32-W	000	45	061	4	009	W PINE	19.0	40	2	0	127
04-00	01	142	38-W	000	50	040	2	035	W PINE	4.1	00	0	0	064

SIZE CLASS: 5

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
02-00	03	139	37-W	000	53	069	6	008	W PINE	15.0	16	2	1	130
01-00	24	138	39-W	000	58	071	6	009	W PINE	16.9	16	1	1	122

SIZE CLASS: 6

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
03-00	11	142	32-W	000	50	081	6	014	W PINE	9.8	00	0	0	160

TOTAL STANDS 5 TOTAL ACRES 75

NORWAY PINE

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:NORWAY PINE ROTATION AGE: 100

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	1237	2979	3409	4452	5816	7599	9926	12965	16934	22118	28890
11-20	1323	1237	2979	3409	4452	5816	7599	9926	12965	16934	22118
21-30	482	1323	1237	2979	3409	4452	5816	7599	9926	12965	16934
31-40	61	482	1323	1237	2979	3409	4452	5816	7599	9926	12965
41-50	459	61	482	1323	1237	2629	3409	4452	5816	7599	9926
51-60	58	459	61	482	408	00	23	28	34	43	57
61-70	403	58	459	61	00	00	00	00	00	00	00
71-80	774	403	58	69	00	00	00	00	00	00	00
81-90	635	774	403	00	00	00	00	00	00	00	00

91-100	245	439	318	00	00	00	00	00	00	00	00
100+	239	00	00	00	00	00	00	00	00	00	00
CCB TOTAL	5916	8215	10729	14012	18301	23905	31225	40786	53274	69585	90890
HARVEST	680	895	1169	1527	1995	2606	3404	4446	5807	7585	9907
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	680	895	1169	1527	1995	2606	3404	4446	5807	7585	9907
ADDS	1910	2514	3283	4289	5604	7320	9561	12488	16311	21305	27827
NONCOM	29										
CVN	00										
UNCHG	29										
ADDS	360										
FUT 0-10	2979	3409	4452	5816	7599	9926	12965	16934	22118	28890	37734

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:NORWAY PINE

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	5916
10 YEAR ALLOWABLE CUT ACREAGE	644
ANNUAL ALLOWABLE CUT ACREAGE	64
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: NORWAY PINE

TOTAL ACRES IN TYPE: 5916
10 YEAR ALLOWABLE CUT: 644
ANNUAL ALLOWABLE CUT: 64

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
N PINE	663	12	34	0	0	709
TOTAL	663	12	34	0	0	709

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	% M	REGEN PLANS SPECIES	METHOD
01-00	36	139	35-W	000	55	071	2	011	N PINE	8.7	00	0 0	N PINE	PLANT
17-00	18	141	36-W	000	47	005	1	018	N PINE	0.4	00	0 0	N PINE	UNDERS

TOTAL STANDS 2 TOTAL ACRES 29

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
25-00	36	141 36-W	000	50	094	2	014	N PINE	6.5	00	0	0
04-00	11	142 32-W	000	60	076	9	015	N PINE	57.2	00	0	0
18-00	16	140 37-W	000	48	068	2	013	N PINE	8.2	42	1	0
17-00	35	141 36-W	000	00	066	7	012	N PINE	13.8	00	0	0
06-00	33	142 37-W	000	57	041	4	013	N PINE	14.0	99	3	2
06-00	06	139 32-W	000	00	016	1	021	N PINE	0.0	00	0	0
09-10	05	142 33-W	000	00	005	1	053	N PINE	0.6	00	0	0
06-00	21	140 37-W	000	57	005	1	101	N PINE	0.8	00	0	0
16-00	25	142 32-W	000	57	004	1	016	N PINE	0.7	00	0	0
07-10	34	142 33-W	000	57	004	1	013	N PINE	0.7	00	0	0

TOTAL STANDS 10 TOTAL ACRES 271

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
13-00	14	142 37-W	000	48	110	9	023	N PINE	26.8	00	0	0	N PINE	PLANT
23-00	12	139 37-W	000	44	108	5	005	N PINE	20.0	00	0	0	N PINE	PLANT
05-00	15	142 32-W	000	53	109	7	006	N PINE	28.7	00	0	0	N PINE	PLANT
15-00	01	142 37-W	000	65	106	7	015	N PINE	26.5	00	0	0	N PINE	PLANT
10-00	07	142 37-W	000	47	105	6	015	N PINE	16.8	42	1	0	N PINE	PLANT
08-00	16	142 34-W	000	60	108	7	005	N PINE	35.8	00	0	0	N PINE	PLANT
03-00	32	142 32-W	000	60	108	4	024	N PINE	7.2	00	0	0	N PINE	PLANT
11-00	33	142 32-W	000	55	108	8	012	N PINE	24.3	00	0	0	N PINE	PLANT
07-00	33	142 32-W	000	60	108	3	007	N PINE	9.0	00	0	0	N PINE	PLANT
06-00	32	142 32-W	000	60	108	4	013	N PINE	7.2	00	0	0	N PINE	PLANT
15-00	01	139 37-W	000	48	103	7	012	N PINE	29.9	00	0	0	N PINE	PLANT
03-00	36	142 34-W	000	47	102	8	014	N PINE	37.7	00	0	0	N PINE	PLANT
06-00	36	142 36-W	000	48	099	8	051	N PINE	31.7	00	0	0	N PINE	PLANT
04-00	35	142 32-W	000	52	101	6	045	N PINE	9.5	40	2	0	N PINE	PLANT
06-00	30	142 32-W	000	60	100	4	005	N PINE	10.4	00	0	0	N PINE	PLANT
06-00	31	142 32-W	000	53	097	8	008	N PINE	33.5	00	0	0	N PINE	PLANT
01-00	36	142 32-W	000	45	097	6	081	N PINE	13.8	50	2	0	N PINE	PLANT
26-00	36	141 36-W	000	50	094	5	018	N PINE	15.0	00	0	0	N PINE	PLANT
09-00	01	141 37-W	000	58	097	6	009	N PINE	10.0	00	0	0	N PINE	PLANT
05-00	10	141 33-W	000	48	096	3	009	N PINE	8.4	00	0	0	N PINE	PLANT
06-00	06	141 32-W	000	50	097	4	004	N PINE	8.0	00	0	0	N PINE	ART SD
09-00	25	142 32-W	000	47	094	8	002	N PINE	9.0	00	0	0	N PINE	ART SD
06-00	23	142 32-W	000	50	094	4	003	N PINE	13.8	00	0	0	N PINE	ART SD
01-00	25	142 32-W	000	60	093	7	005	N PINE	14.0	00	0	0	N PINE	PLANT
08-00	19	142 32-W	000	55	094	6	017	N PINE	10.2	00	0	0	N PINE	PLANT
01-00	19	142 32-W	000	50	093	5	014	N PINE	17.4	00	0	0	N PINE	PLANT
10-00	24	141 37-W	000	58	090	4	006	N PINE	15.2	00	0	0	N PINE	PLANT
02-00	22	142 32-W	000	55	090	6	019	N PINE	16.8	00	0	0	N PINE	PLANT
06-00	31	140 36-W	000	45	087	3	016	N PINE	5.8	00	0	0	N PINE	UNDERS
13-00	13	139 37-W	000	52	086	6	033	N PINE	21.6	00	0	0	N PINE	PLANT
04-00	16	139 37-W	000	52	086	5	067	N PINE	9.7	00	0	0	N PINE	PLANT
05-00	03	142 32-W	000	60	090	6	005	N PINE	16.0	00	0	0	N PINE	PLANT
01-00	36	141 36-W	000	52	084	7	003	N PINE	25.0	00	0	0	N PINE	ART SD
14-00	13	139 37-W	000	60	084	5	005	N PINE	18.8	00	0	0	N PINE	PLANT
09-00	13	139 37-W	000	49	084	8	010	N PINE	30.3	00	0	0	N PINE	PLANT
01-00	24	139 35-W	000	55	086	9	005	N PINE	33.3	00	0	0	N PINE	PLANT
15-00	36	142 36-W	000	55	084	5	037	N PINE	15.6	00	0	0	N PINE	PLANT
05-00	04	142 37-W	000	46	084	5	052	N PINE	11.3	00	0	0	N PINE	PLANT

TOTAL STANDS 38 TOTAL ACRES 680

LISTING OF ALL STANDS TO BE MANAGED ON AN ALL-AGED BASIS

SIZE CLASS: 5

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
20-00	36	141	36-W	000	61	085	6	028	N PINE	23.6	00	0	0	126

TOTAL STANDS 1 TOTAL ACRES 28

LISTING OF ALL STANDS TO BE THINNED

SIZE CLASS: 3

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
06-00	17	142	33-W	000	70	024	9	009	N PINE	0.0	00	0	0	288
12-00	36	142	36-W	000	70	018	4	044	N PINE	1.0	00	0	0	090
01-00	17	142	33-W	000	70	021	9	076	N PINE	0.0	00	0	0	055

SIZE CLASS: 4

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
07-00	28	142	32-W	000	73	037	5	016	N PINE	13.8	00	0	0	173
05-00	33	142	37-W	000	66	045	6	010	N PINE	16.3	00	0	0	160
07-00	34	142	32-W	000	55	042	6	016	N PINE	27.5	00	0	0	150
03-00	34	142	32-W	000	55	042	6	020	N PINE	27.5	00	0	0	150
04-00	02	141	32-W	000	60	057	6	006	N PINE	16.0	00	0	0	147
02-00	08	142	37-W	000	69	044	6	009	N PINE	15.7	00	0	0	146
06-00	02	141	32-W	000	62	049	6	011	N PINE	29.0	00	0	0	145
04-00	03	141	32-W	000	65	045	7	026	N PINE	24.5	00	0	0	140
04-00	24	142	37-W	000	58	044	5	007	N PINE	22.7	99	1	1	135
04-00	27	142	37-W	000	57	053	5	010	N PINE	16.4	99	1	0	130
20-00	09	139	32-W	000	60	045	7	007	N PINE	35.0	00	0	0	123
24-00	09	139	32-W	000	70	041	5	009	N PINE	26.0	00	0	0	123
03-00	11	142	37-W	000	62	042	4	008	N PINE	17.5	00	0	0	116
19-00	36	139	33-W	000	55	045	6	018	N PINE	29.6	00	0	0	116
05-00	09	139	32-W	000	60	075	6	039	N PINE	10.4	00	0	0	114
03-00	36	139	32-W	000	60	032	3	006	N PINE	14.2	00	0	0	112
04-00	36	140	33-W	000	70	039	5	027	N PINE	23.8	00	0	0	110
07-00	06	142	38-W	000	53	032	2	007	N PINE	6.6	00	0	0	103

SIZE CLASS: 5

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
04-00	36	141	34-W	000	65	065	9	023	N PINE	44.0	00	0	0	210
01-00	36	141	34-W	000	55	072	9	020	N PINE	46.9	00	0	0	200
01-00	34	142	32-W	000	70	044	9	006	N PINE	43.0	00	0	0	200
10-00	16	141	34-W	000	60	068	7	008	N PINE	17.7	00	0	0	190
12-00	03	142	32-W	000	63	077	9	009	N PINE	33.5	00	0	0	183
04-00	14	142	32-W	000	50	079	9	008	N PINE	36.5	00	0	0	182
19-00	36	141	36-W	000	63	078	9	020	N PINE	41.4	00	0	0	164
03-00	03	141	32-W	000	65	046	7	014	N PINE	30.4	00	0	0	160
03-00	11	139	37-W	000	51	085	7	013	N PINE	29.6	00	0	0	157
04-00	26	141	36-W	000	55	080	7	006	N PINE	23.4	00	0	0	157
11-00	36	142	36-W	000	58	082	9	006	N PINE	32.0	00	0	0	155
05-00	26	140	33-W	000	60	043	6	006	N PINE	29.0	00	0	0	155
01-00	08	142	37-W	000	59	047	7	016	N PINE	13.9	00	0	0	153
03-00	08	142	37-W	000	59	047	7	010	N PINE	13.9	00	0	0	153
01-00	10	142	32-W	000	55	080	7	007	N PINE	24.4	00	0	0	150
01-00	36	142	34-W	000	52	080	6	010	N PINE	23.0	00	0	0	140
15-00	10	139	37-W	000	48	077	6	012	N PINE	23.1	00	0	0	137
20-00	28	141	36-W	000	48	084	8	024	N PINE	33.6	00	0	0	136

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
24-00	21	140	37-W	000	56	068	8	029	N PINE	38.1	00	0	0	136
03-00	04	142	37-W	000	46	084	5	010	N PINE	11.3	00	0	0	133
12-00	35	142	36-W	000	50	081	5	006	N PINE	18.4	00	0	0	133
19-00	20	140	37-W	000	45	080	5	006	N PINE	17.0	42	1	0	133
19-00	11	142	39-W	000	55	076	7	006	N PINE	9.7	00	0	0	133
06-00	22	141	36-W	000	64	084	7	008	N PINE	14.4	00	0	0	132
09-00	06	142	38-W	000	50	071	8	014	N PINE	36.0	00	0	0	132
07-00	26	142	32-W	000	63	080	7	008	N PINE	18.3	00	0	0	130
04-00	36	142	34-W	000	55	078	7	030	N PINE	29.3	00	0	0	130
03-00	36	141	34-W	000	50	076	6	025	N PINE	11.7	00	0	0	130
16-00	14	139	37-W	000	57	071	8	032	N PINE	34.2	00	0	0	130
06-00	13	139	37-W	000	57	075	7	035	N PINE	19.6	00	0	0	126
04-00	21	142	38-W	000	60	067	8	007	N PINE	29.4	00	0	0	125
06-00	11	139	37-W	000	58	077	5	017	N PINE	20.1	00	0	0	122
06-00	36	142	34-W	000	57	077	6	059	N PINE	20.7	60	2	0	122
15-00	24	141	37-W	000	57	086	2	006	N PINE	9.6	00	0	0	120
02-00	27	142	32-W	000	63	076	6	014	N PINE	12.0	00	0	0	120
03-00	23	142	32-W	000	60	076	7	007	N PINE	13.0	00	0	0	120
19-00	09	140	37-W	000	43	058	6	008	N PINE	6.3	00	0	0	120
11-00	09	139	32-W	000	65	045	7	026	N PINE	32.7	00	0	0	120
11-00	18	141	36-W	000	60	070	5	012	N PINE	9.7	42	1	1	119
09-00	09	141	36-W	000	61	075	6	009	N PINE	11.0	00	0	0	117
03-00	25	142	32-W	000	57	083	6	007	N PINE	5.5	00	0	0	115
08-00	36	140	33-W	000	64	046	5	015	N PINE	24.5	00	0	0	115
05-00	05	142	37-W	000	53	082	6	007	N PINE	8.6	00	0	0	114
08-00	06	142	37-W	000	60	065	6	008	N PINE	14.0	00	0	0	114
05-00	06	142	37-W	000	60	065	6	008	N PINE	14.0	00	0	0	114
03-00	26	142	38-W	000	58	073	7	026	N PINE	32.1	00	0	0	111
01-00	24	142	38-W	000	63	068	7	055	N PINE	18.8	00	0	0	111
04-00	15	142	32-W	000	50	087	6	012	N PINE	20.6	00	0	0	110
18-00	15	140	37-W	000	49	079	7	014	N PINE	32.8	00	0	0	110
19-00	17	141	36-W	000	69	073	4	013	N PINE	8.4	42	1	1	110
02-00	06	142	38-W	000	50	071	5	008	N PINE	14.3	00	0	0	110
04-00	36	140	35-W	000	60	071	6	013	N PINE	17.2	00	0	0	110
01-00	36	140	35-W	000	50	065	6	026	N PINE	23.6	00	0	0	110
12-00	11	139	37-W	000	52	081	5	020	N PINE	18.8	00	0	0	108
10-00	25	142	38-W	000	54	066	4	007	N PINE	16.3	00	0	0	106
11-00	13	139	37-W	000	60	085	5	007	N PINE	18.5	00	0	0	105
03-00	13	142	38-W	000	65	061	9	008	N PINE	25.5	00	0	0	105
12-00	10	139	37-W	000	52	076	6	035	N PINE	27.8	00	0	0	104
07-00	14	139	37-W	000	50	080	5	007	N PINE	22.7	00	0	0	103
11-00	02	139	37-W	000	59	070	6	021	N PINE	11.6	00	0	0	102
03-00	24	140	37-W	000	46	085	5	009	N PINE	22.1	00	0	0	100
20-00	16	140	37-W	000	52	070	6	036	N PINE	27.3	00	0	0	100
04-00	06	142	38-W	000	50	071	5	012	N PINE	23.0	00	0	0	100
19-00	19	140	37-W	000	62	070	5	021	N PINE	7.4	00	0	0	099
13-00	25	142	38-W	000	50	075	4	009	N PINE	16.1	00	0	0	098
07-00	16	139	37-W	000	51	081	6	008	N PINE	23.6	00	0	0	096
15-00	25	142	38-W	000	41	082	4	032	N PINE	10.0	00	0	0	092
04-00	13	139	37-W	000	53	079	6	024	N PINE	24.8	00	0	0	092
18-00	34	140	37-W	000	57	081	6	031	N PINE	22.3	99	1	1	090
10-00	15	139	37-W	000	61	073	3	006	N PINE	8.0	00	0	0	090
11-00	25	142	38-W	000	56	067	4	006	N PINE	11.3	00	0	0	090
30-00	16	141	36-W	000	64	046	3	038	N PINE	7.8	00	0	0	090
26-00	16	141	36-W	000	64	046	3	024	N PINE	7.8	00	0	0	090
25-00	16	141	36-W	000	64	046	3	096	N PINE	7.8	00	0	0	090
01-00	04	142	37-W	000	44	083	4	011	N PINE	10.8	00	0	0	083
14-00	25	142	38-W	000	52	074	4	016	N PINE	15.0	00	0	0	082
05-00	16	139	37-W	000	57	081	5	051	N PINE	22.5	00	0	0	081
04-00	15	139	37-W	000	59	070	2	007	N PINE	9.4	00	0	0	080
04-00	09	139	37-W	000	48	073	4	010	N PINE	14.0	00	0	0	077
21-00	09	140	37-W	000	43	064	4	007	N PINE	11.3	00	0	0	076
02-00	26	142	38-W	000	56	073	2	021	N PINE	6.0	00	0	0	072
06-00	15	140	37-W	000	51	070	3	010	N PINE	10.4	00	0	0	070
22-00	36	140	33-W	000	62	045	3	006	N PINE	11.2	00	0	0	070
07-00	24	142	38-W	000	53	077	4	008	N PINE	19.6	00	0	0	060
06-00	01	139	37-W	000	47	067	3	019	N PINE	7.3	00	0	0	055
26-00	09	140	37-W	000	54	067	2	015	N PINE	11.2	00	0	0	052

SIZE CLASS: 6

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
06-00	28	142	32-W	000	75	069	9	007	N PINE	23.4	00	0	0	173
13-00	03	142	32-W	000	62	080	7	018	N PINE	17.7	00	0	0	160
03-00	16	142	33-W	000	60	076	6	022	N PINE	6.4	50	2	0	138

TOTAL STANDS 110 TOTAL ACRES 1870

JACK PINE

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:JACK PINE ROTATION AGE: 55

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	165	1510	1298	1312	1327	1343	1357	1372	1388	1403	1419
11-20	30	165	1510	1298	1312	1327	1343	1357	1372	1388	1403
21-30	243	30	165	1510	1298	1312	1327	1343	1357	1372	1388
31-40	600	243	30	165	1510	1298	1312	1327	1343	1357	1372
41-50	1739	600	243	30	165	1510	1298	1312	1327	1343	1357
51-60	2080	1739	600	243	30	113	343	347	350	354	359
61-70	1140	2080	1739	600	243	00	00	00	00	00	00
71-80	355	235	1091	1592	600	00	00	00	00	00	00
81-90	51	00	00	00	341	00	00	00	00	00	00
91-100	00	00	00	00	00	00	00	00	00	00	00
100+	00	00	00	00	00	00	00	00	00	00	00
CCB TOTAL	6403	6602	6676	6750	6826	6903	6980	7058	7137	7217	7298
HARVEST	1311	1224	1238	1252	1266	1280	1294	1309	1324	1338	1353
CVN	455	425	430	434	439	444	449	454	459	464	469
UNCHG	856	799	808	817	827	836	845	855	864	874	883
ADDS	534	499	504	510	516	521	527	533	539	545	551
NONCOM	76										
CVN	00										
UNCHG	76										
ADDS	44										
FUT 0-10	1510	1298	1312	1327	1343	1357	1372	1388	1403	1419	1434

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:JACK PINE

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	6403
10 YEAR ALLOWABLE CUT ACREAGE	1187
ANNUAL ALLOWABLE CUT ACREAGE	118
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	455

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

N PINE	S PINE	WH SPR
402	07	46

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: JACK PINE

TOTAL ACRES IN TYPE:	6403
10 YEAR ALLOWABLE CUT:	1187
ANNUAL ALLOWABLE CUT:	118

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
N PINE	392	10	0	0	402	791
J PINE	0	0	932	0	7	0
P PINE	0	7	0	0	0	0
WH SPR	46					
TOTAL	1229	158	0	0	0	1387

141
0
46

LISTING OF ALL STANDS TO BE REGENERATED WITHOUT HARVEST

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
05-00	27	142	33-W	000	50	013	1	015	J PINE	0.0	00	0	0	J PINE	PLANT
22-10	09	139	32-W	000	65	004	1	011	J PINE	0.8	00	0	0	J PINE	PLANT

TOTAL STANDS 2 TOTAL ACRES 26

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
02-00	19	142	37-W	000	64	055	5	025	J PINE	23.2	99	3	2	J PINE	PLANT
03-00	15	142	37-W	000	69	049	7	025	J PINE	21.3	99	3	2	J PINE	PLANT

TOTAL STANDS 2 TOTAL ACRES 50

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
01-00	19	141	36-W	000	70	044	5	015	J PINE	17.3	00	0	0
02-00	16	141	35-W	000	62	044	3	025	J PINE	14.0	00	0	0
06-00	16	141	35-W	000	60	043	4	030	J PINE	11.3	00	0	0
02-00	36	140	36-W	000	62	038	1	012	J PINE	5.1	99	1	1
09-00	16	141	35-W	000	60	036	2	031	J PINE	2.3	00	0	0
09-00	06	141	32-W	000	55	027	1	018	J PINE	0.0	00	0	0

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
22-00	09	140	37-W	000	56	024	2	011	J PINE	0.9	00	0	0
03-00	10	139	32-W	000	55	013	2	011	J PINE	0.0	00	0	0
09-00	16	139	32-W	000	60	010	2	033	J PINE	0.0	00	0	0
03-00	34	141	36-W	000	59	005	2	070	J PINE	0.8	00	0	0

TOTAL STANDS 10 TOTAL ACRES 256

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
07-00	16	140	37-W	000	52	086	7	004	J PINE	13.7	99	3	3	N PINE	PLANT
03-00	12	139	37-W	000	50	084	5	009	J PINE	12.5	40	2	1	N PINE	PLANT
14-00	36	140	33-W	000	60	082	5	025	J PINE	16.6	00	0	0	J PINE	PLANT
10-00	01	139	37-W	000	50	081	6	006	J PINE	14.0	42	1	1	N PINE	PLANT
06-00	13	142	32-W	000	55	083	8	007	J PINE	36.7	00	0	0	J PINE	PLANT
17-00	20	140	37-W	000	49	077	5	003	J PINE	13.0	42	2	2	N PINE	PLANT
07-00	22	141	36-W	000	69	075	7	006	J PINE	16.0	42	3	1	J PINE	PLANT
17-00	27	140	37-W	000	53	074	4	011	J PINE	17.2	99	3	1	J PINE	PLANT
13-00	27	140	37-W	000	53	074	4	002	J PINE	17.2	99	3	1	J PINE	PLANT
01-00	16	140	32-W	000	40	075	4	019	J PINE	10.0	07	4	3	N PINE	PLANT
17-00	09	139	32-W	000	58	075	7	006	J PINE	34.0	00	0	0	J PINE	ART SD
16-00	35	140	37-W	000	55	073	2	013	J PINE	5.3	40	2	0	N PINE	PLANT
08-00	16	140	37-W	000	61	072	8	134	J PINE	32.7	40	2	1	J PINE	PLANT
07-00	36	139	35-W	000	60	073	4	018	J PINE	19.5	28	3	2	J PINE	PLANT
15-00	02	139	37-W	000	54	072	5	050	J PINE	21.3	40	3	1	J PINE	PLANT
12-00	16	141	34-W	000	55	076	5	014	J PINE	20.9	00	0	0	N PINE	PLANT
06-00	12	139	37-W	000	51	071	5	013	J PINE	15.2	40	1	1	N PINE	PLANT
14-00	02	139	37-W	000	51	071	5	006	J PINE	22.7	42	2	1	J PINE	PLANT
04-00	16	139	32-W	000	62	072	6	015	J PINE	29.0	00	0	0	J PINE	PLANT
25-00	36	142	36-W	000	61	071	7	007	J PINE	18.6	42	1	0	J PINE	ART SD
03-00	13	139	37-W	000	59	070	4	016	J PINE	15.2	40	3	1	J PINE	PLANT
07-00	22	140	37-W	000	55	070	5	015	J PINE	8.0	40	1	1	J PINE	PLANT
15-00	19	140	37-W	000	63	070	9	008	J PINE	32.0	40	3	0	J PINE	PLANT
25-00	09	140	37-W	000	57	070	6	008	J PINE	28.0	40	1	0	J PINE	ART SD
23-00	20	140	37-W	000	68	070	7	010	J PINE	11.3	00	0	0	J PINE	PLANT
22-00	20	140	37-W	000	68	070	6	007	J PINE	24.7	99	2	1	J PINE	ART SD
25-00	28	140	37-W	000	62	070	9	005	J PINE	44.3	99	3	1	J PINE	ART SD
09-00	19	140	37-W	000	66	072	8	004	J PINE	32.3	00	0	0	J PINE	ART SD
13-00	22	140	37-W	000	68	069	5	028	J PINE	14.5	42	4	1	J PINE	PLANT
10-00	14	139	37-W	000	53	069	3	030	J PINE	6.2	40	3	1	N PINE	PLANT
06-00	36	140	35-W	000	60	073	6	005	J PINE	24.0	00	0	0	J PINE	ART SD
16-00	07	142	37-W	000	60	069	5	007	J PINE	9.7	40	3	0	P PINE	ART SD
02-00	09	142	37-W	000	63	069	5	009	J PINE	16.7	99	2	2	J PINE	PLANT
08-00	07	142	37-W	000	60	069	6	027	J PINE	12.8	40	3	0	J PINE	PLANT
03-00	06	139	35-W	000	60	073	1	005	J PINE	4.0	00	0	0	N PINE	ART SD
01-00	06	139	35-W	000	60	070	2	016	J PINE	4.0	00	0	0	J PINE	PLANT
13-00	17	141	36-W	000	59	069	4	011	J PINE	5.7	00	0	0	N PINE	PLANT
05-00	01	141	36-W	000	68	071	4	004	J PINE	15.0	00	0	0	J PINE	ART SD
01-00	18	141	36-W	000	59	069	4	023	J PINE	5.7	00	0	0	N PINE	PLANT
07-00	14	142	33-W	000	60	069	1	006	J PINE	20.6	00	0	0	WH SPR	PLANT
08-00	25	142	33-W	000	60	073	3	006	J PINE	12.7	50	2	0	J PINE	ART SD
03-00	26	142	33-W	000	55	073	7	005	J PINE	33.3	00	0	0	J PINE	ART SD
17-00	28	141	36-W	000	49	068	3	009	J PINE	9.0	51	2	2	N PINE	PLANT
22-00	26	141	36-W	000	58	068	4	012	J PINE	11.5	40	4	0	J PINE	PLANT
01-00	36	139	34-W	000	58	069	7	019	J PINE	16.9	07	3	2	N PINE	PLANT
21-00	36	140	33-W	000	62	069	6	008	J PINE	16.2	00	0	0	N PINE	PLANT
10-00	22	140	37-W	000	56	068	5	007	J PINE	19.0	42	3	1	J PINE	ART SD
05-00	16	140	37-W	000	57	067	5	008	J PINE	23.0	40	3	0	J PINE	ART SD
05-00	16	141	34-W	000	55	071	8	009	J PINE	36.7	00	0	0	J PINE	PLANT
19-00	36	142	36-W	000	61	067	6	009	J PINE	13.2	00	0	0	J PINE	PLANT
17-00	35	140	37-W	000	53	066	6	007	J PINE	25.6	40	5	0	J PINE	ART SD
18-00	29	140	37-W	000	70	066	5	002	J PINE	16.1	99	1	1	J PINE	ART SD
14-00	19	140	37-W	000	61	066	6	014	J PINE	16.2	40	1	1	J PINE	PLANT
06-00	36	139	35-W	000	58	067	4	009	J PINE	9.3	00	0	0	N PINE	PLANT
10-00	36	139	35-W	000	60	067	6	006	J PINE	30.5	28	3	3	J PINE	ART SD
14-00	28	141	36-W	000	57	066	7	020	J PINE	33.7	51	3	3	N PINE	PLANT

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	% M	REGEN SPECIES	PLANS METHOD
07-00	12	141	37-W	000	61	067	7	019	J PINE	32.0	00	0 0	N PINE	PLANT
04-00	14	139	35-W	000	45	069	6	005	J PINE	14.2	00	0 0	N PINE	ART SD
01-00	14	139	35-W	000	45	069	6	007	J PINE	14.2	00	0 0	N PINE	PLANT
10-00	15	140	37-W	000	61	065	4	006	J PINE	12.8	40	1 0	J PINE	ART SD
14-00	15	140	37-W	000	61	065	4	013	J PINE	12.8	40	1 0	J PINE	PLANT
05-00	16	140	33-W	000	62	066	9	006	J PINE	42.3	06	1 1	WH SPR	PLANT
23-00	23	140	37-W	000	53	064	1	002	J PINE	4.6	40	3 0	J PINE	ART SD
05-00	23	140	37-W	000	53	064	2	003	J PINE	4.1	00	0 0	J PINE	ART SD
06-00	36	139	32-W	000	59	066	4	005	J PINE	18.0	99	2 0	J PINE	ART SD
03-00	34	139	35-W	000	60	066	3	007	J PINE	17.0	00	0 0	N PINE	PLANT
12-00	24	141	37-W	000	54	066	4	013	J PINE	12.0	00	0 0	N PINE	PLANT
06-00	19	142	32-W	000	60	068	8	004	J PINE	35.7	00	0 0	J PINE	ART SD
08-00	22	140	37-W	000	59	063	4	005	J PINE	15.7	42	1 1	J PINE	ART SD
12-00	17	140	37-W	000	53	063	4	010	J PINE	13.3	40	2 0	WH SPR	PLANT
08-00	28	141	36-W	000	58	063	6	040	J PINE	16.6	51	2 2	J PINE	PLANT
05-00	36	141	36-W	000	64	063	9	017	J PINE	39.2	40	2 0	J PINE	PLANT
01-00	36	141	32-W	000	70	066	8	015	J PINE	34.0	00	0 0	N PINE	PLANT
01-00	06	141	32-W	000	60	066	6	005	J PINE	24.7	00	0 0	J PINE	ART SD
03-00	14	142	33-W	000	63	067	2	013	J PINE	7.0	00	0 0	WH SPR	PLANT
01-00	08	141	32-W	000	70	065	7	015	J PINE	29.2	00	0 0	J PINE	PLANT
15-00	34	141	36-W	000	65	062	6	004	J PINE	29.3	42	1 0	J PINE	ART SD
18-00	28	141	36-W	000	58	062	5	008	J PINE	21.0	51	2 2	J PINE	PLANT
22-00	35	140	37-W	000	60	062	5	010	J PINE	19.7	42	2 2	J PINE	PLANT
13-00	36	139	35-W	000	57	063	3	015	J PINE	6.7	00	0 0	J PINE	PLANT
10-00	27	142	33-W	000	50	066	4	011	J PINE	9.5	00	0 0	WH SPR	PLANT
07-00	05	142	37-W	000	61	062	5	025	J PINE	10.6	99	2 1	J PINE	PLANT
11-00	16	142	36-W	000	53	062	3	011	J PINE	5.0	00	0 0	N PINE	PLANT
09-00	03	142	37-W	000	61	061	6	044	J PINE	25.2	99	3 2	J PINE	PLANT
21-00	35	140	37-W	000	69	061	7	006	J PINE	21.7	99	1 3	J PINE	PLANT
21-00	22	140	37-W	000	67	061	6	006	J PINE	29.3	99	2 3	J PINE	ART SD
02-00	08	141	32-W	000	69	064	7	009	J PINE	32.0	00	0 0	J PINE	PLANT
10-00	06	141	32-W	000	60	064	5	006	J PINE	13.0	00	0 0	J PINE	PLANT
08-00	16	142	33-W	000	55	066	7	006	J PINE	35.0	00	0 0	J PINE	ART SD
11-00	15	142	32-W	000	60	064	7	021	J PINE	34.6	00	0 0	J PINE	PLANT
13-00	02	139	37-W	000	57	061	3	016	J PINE	4.9	40	2 1	N PINE	PLANT
04-00	36	140	32-W	000	61	062	4	033	J PINE	14.7	42	3 3	J PINE	PLANT
09-00	36	140	32-W	000	55	061	4	076	J PINE	18.6	40	4 3	N PINE	PLANT
16-00	15	142	32-W	000	62	063	7	003	J PINE	31.0	00	0 0	J PINE	ART SD
09-00	06	142	32-W	000	55	063	5	002	J PINE	22.3	00	0 0	J PINE	ART SD
09-00	33	142	32-W	000	60	064	5	006	J PINE	17.6	00	0 0	J PINE	PLANT
05-00	16	142	33-W	000	51	065	2	003	J PINE	6.0	99	0 0	J PINE	ART SD
01-00	15	141	36-W	000	60	060	4	011	J PINE	11.5	40	3 0	N PINE	PLANT
08-00	36	141	34-W	000	65	064	5	007	J PINE	24.3	00	0 0	N PINE	PLANT

TOTAL STANDS 99 TOTAL ACRES 1311

SCOTCH PINE

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:SCOTCH PINE ROTATION AGE: 100

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	00	07	07	14	28	42	77	126	217	371	630
11-20	00	00	07	07	14	28	42	77	126	217	371
21-30	07	00	00	07	07	14	28	42	77	126	217
31-40	00	07	00	00	07	07	14	28	42	77	126
41-50	00	00	07	00	00	07	07	14	28	42	77
51-60	00	00	00	07	00	00	07	07	14	28	42

61-70	00	00	00	00	07	00	00	07	07	14	28
71-80	00	00	00	00	00	07	00	00	07	07	14
81-90	00	00	00	00	00	00	07	00	00	07	07
91-100	00	00	00	00	00	00	00	07	00	00	07
100+	00	00	00	00	00	00	00	00	07	07	07
CCB TOTAL	07	14	21	35	63	105	182	308	525	896	1526
HARVEST	00	01	02	04	06	11	18	31	53	90	153
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	07	07	14	28	42	77	126	217	371	630	1071
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	00										
FUT 0-10	07	07	14	28	42	77	126	217	371	630	1071

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:SCOTCH PINE

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	7
10 YEAR ALLOWABLE CUT ACREAGE	0
ANNUAL ALLOWABLE CUT ACREAGE	0
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

WHITE SPRUCE

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:WHITE SPRUCE ROTATION AGE: 100

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	90	841	799	1211	1843	2809	4275	6495	9884	15036	22866
11-20	276	90	841	799	1211	1843	2809	4275	6495	9884	15036
21-30	40	276	90	841	799	1211	1843	2809	4275	6495	9884
31-40	33	40	276	90	841	799	1211	1843	2809	4275	6495
41-50	73	33	40	199	79	600	799	1211	1843	2809	4275
51-60	00	73	21	00	00	00	113	172	257	387	591
61-70	15	00	00	00	00	00	00	00	00	00	00
71-80	00	06	00	00	00	00	00	00	00	00	00
81-90	00	00	00	00	00	00	00	00	00	00	00
91-100	00	00	00	00	00	00	00	00	00	00	00

100+	00	00	00	00	00	00	00	00	00	00	00
CCB TOTAL	527	1359	2067	3140	4773	7262	11050	16805	25563	38886	59147
HARVEST	09	91	138	210	320	487	740	1126	1713	2605	3963
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	09	91	138	210	320	487	740	1126	1713	2605	3963
ADDS	700	708	1073	1633	2489	3788	5755	8758	13323	20261	30823
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	132										
FUT 0-10	841	799	1211	1843	2809	4275	6495	9884	15036	22866	34786

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:WHITE SPRUCE

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	527
10 YEAR ALLOWABLE CUT ACREAGE	35
ANNUAL ALLOWABLE CUT ACREAGE	3
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: WHITE SPRUCE

TOTAL ACRES IN TYPE:	527
10 YEAR ALLOWABLE CUT:	35
ANNUAL ALLOWABLE CUT:	3

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
WH SPR	9	0	0	0	0	9
TOTAL	9	0	0	0	0	9

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
05-00	01	142	39-W	000	47	019	2	054	WH SPR	0.5	00	0	0
01-00	03	142	38-W	000	50	023	1	018	WH SPR	0.6	00	0	0

TOTAL STANDS 2 TOTAL ACRES 72

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
05-00	13	141	37-W	000	60	068	4	009	WH SPR	7.5	00	0	0	WH SPR	PLANT

TOTAL STANDS 1 TOTAL ACRES 9

LISTING OF ALL STANDS TO BE THINNED

SIZE CLASS: 4

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
01-00	12	142	38-W	000	68	048	2	048	WH SPR	9.6	00	0	0	134
01-00	02	142	38-W	000	60	048	2	008	WH SPR	9.6	00	0	0	116

TOTAL STANDS 2 TOTAL ACRES 56

BALSAM FIR

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:BALSAM FIR ROTATION AGE: 50

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	25	00	00	00	00	00	00	00	00	00	00
11-20	206	25	00	00	00	00	00	00	00	00	00
21-30	84	206	25	00	00	00	00	00	00	00	00
31-40	90	84	206	25	00	00	00	00	00	00	00
41-50	156	90	84	206	25	00	00	00	00	00	00
51-60	269	156	90	84	206	25	00	00	00	00	00
61-70	233	269	156	90	84	206	25	00	00	00	00
71-80	100	80	174	156	90	84	206	25	00	00	00
81-90	45	00	00	33	75	73	83	206	25	00	00
91-100	34	00	00	00	00	00	00	23	180	25	00
100+	00	00	00	00	00	00	00	00	00	141	134
CCB TOTAL	1242	910	735	594	480	388	314	254	205	166	134
HARVEST	332	175	141	114	92	74	60	49	39	32	26
CVN	332	175	141	114	92	74	60	49	39	32	26
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	341										
CVN	341										
UNCHG	00										
ADDS	00										
FUT 0-10	00	00	00	00	00	00	00	00	00	00	00

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:BALSAM FIR

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	1242
10 YEAR ALLOWABLE CUT ACREAGE	238
ANNUAL ALLOWABLE CUT ACREAGE	23
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	332

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

ASPEN	WH SPR	N PINE	TMRACK	ASH	BL SPR	J PINE
56	112	63	08	20	13	60

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: BALSAM FIR

TOTAL ACRES IN TYPE: 1242
10 YEAR ALLOWABLE CUT: 238
ANNUAL ALLOWABLE CUT: 23

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
ASPEN	0	0	14	0	64	78
WH SPR	177	0	0	0	0	177
N PINE	302	0	0	0	0	302
WCEDAR	7	0	0	0	0	7
TMRACK	8	0	0	0	0	8
ASH	0	0	12	0	8	20
BL SPR	13	0	0	0	0	13
J PINE	68	0	0	0	0	68
TOTAL	575	0	26	0	72	673

LISTING OF ALL STANDS TO BE REGENERATED WITHOUT HARVEST

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
05-00	26	141	36-W	000	46	067	1	045	BALSAM	2.2	40	3	1	N PINE	PLANT
03-00	28	140	37-W	000	33	054	1	009	BALSAM	2.0	55	2	4	N PINE	PLANT
14-00	12	142	36-W	000	38	020	1	014	BALSAM	0.4	00	0	0	N PINE	PLANT

TOTAL STANDS 3 TOTAL ACRES 68

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
02-00	06	137	37-W	000	38	078	2	007	BALSAM	4.0	00	0	0	WCEDAR	PLANT
15-00	08	140	37-W	000	55	073	4	015	BALSAM	8.2	51	3	3	ASPEN	SPROUT
27-00	36	140	33-W	000	47	071	4	008	BALSAM	5.3	51	3	2	J PINE	PLANT
01-00	07	142	38-W	000	50	068	2	019	BALSAM	5.6	51	3	3	WH SPR	PLANT
11-00	35	142	36-W	000	52	061	1	015	BALSAM	2.0	00	0	0	WH SPR	PLANT
02-00	32	140	38-W	000	53	057	1	021	BALSAM	3.6	99	1	1	WH SPR	PLANT
08-00	09	140	37-W	000	57	056	5	007	BALSAM	17.7	99	3	2	ASPEN	SPROUT
09-00	15	141	36-W	000	49	055	4	033	BALSAM	12.8	51	3	3	N PINE	PLANT
02-00	31	140	36-W	000	50	047	1	138	BALSAM	3.7	99	2	2	N PINE	PLANT
29-00	22	141	36-W	000	49	041	1	010	BALSAM	1.5	00	0	0	WH SPR	PLANT

TOTAL STANDS 10 TOTAL ACRES 273

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
01-00	30	140	36-W	000	57	044	1	036	BALSAM	2.0	99	2	2
24-00	15	141	36-W	000	26	024	3	036	BALSAM	0.9	40	1	1
08-00	26	140	37-W	000	41	020	2	008	BALSAM	0.4	00	0	0
01-00	01	142	37-W	000	49	019	1	006	BALSAM	0.2	43	1	1
02-00	15	141	36-W	000	29	019	3	010	BALSAM	0.9	40	1	0
05-00	15	141	36-W	000	29	019	3	018	BALSAM	0.9	40	1	0
14-00	18	141	36-W	000	26	017	3	020	BALSAM	0.9	43	2	5
26-00	22	140	37-W	000	50	016	2	015	BALSAM	0.8	00	0	0
03-00	26	141	40-W	000	51	016	1	006	BALSAM	0.3	00	0	0
28-00	22	141	36-W	000	31	016	3	019	BALSAM	0.9	40	1	0
02-00	34	140	33-W	000	50	017	1	013	BALSAM	0.4	00	0	0
05-00	23	141	40-W	000	51	014	1	006	BALSAM	0.7	00	0	0
23-00	19	140	37-W	000	50	014	2	005	BALSAM	1.1	00	0	0
02-00	23	141	40-W	000	51	013	1	010	BALSAM	0.4	00	0	0

TOTAL STANDS 14 TOTAL ACRES 208

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
17-00	14	139	37-W	000	52	095	3	018	BALSAM	4.0	40	2	1	ASPEN	SPROUT
04-00	17	142	39-W	000	65	092	3	005	BALSAM	11.3	99	2	2	WH SPR	PLANT
07-00	26	140	37-W	000	41	091	2	011	BALSAM	3.9	00	0	0	ASPEN	SPROUT
02-00	07	142	36-W	000	51	081	4	020	BALSAM	11.2	40	1	1	N PINE	PLANT
21-00	15	141	36-W	000	53	078	3	013	BALSAM	7.0	40	2	1	WH SPR	PLANT
08-00	12	142	37-W	000	49	076	1	008	BALSAM	0.2	00	0	0	TMRACK	PLANT
03-00	17	142	38-W	000	52	080	3	006	BALSAM	10.0	28	1	1	WH SPR	PLANT
04-00	17	142	38-W	000	35	078	2	019	BALSAM	5.8	28	1	1	WH SPR	PLANT
07-00	16	142	36-W	000	70	074	7	010	BALSAM	12.5	51	1	1	N PINE	PLANT
07-00	28	140	37-W	000	68	073	6	008	BALSAM	12.3	99	2	2	ASH	SPROUT
12-00	08	140	37-W	000	30	073	3	005	BALSAM	10.6	99	1	1	WH SPR	PLANT
02-00	34	142	36-W	000	38	072	2	013	BALSAM	7.0	00	0	0	BL SPR	PLANT
22-00	27	141	36-W	000	53	071	1	012	BALSAM	5.0	40	1	1	ASH	UNDERS
03-00	28	142	38-W	000	55	071	4	006	BALSAM	16.0	51	3	3	ASPEN	UNDERS
03-00	20	142	38-W	000	52	069	3	008	BALSAM	11.0	00	0	0	ASPEN	UNDERS
06-00	20	142	38-W	000	52	069	3	011	BALSAM	11.0	00	0	0	WH SPR	PLANT
01-00	25	141	37-W	000	40	069	2	034	BALSAM	5.0	51	2	1	WH SPR	PLANT
11-00	26	141	36-W	000	46	067	3	060	BALSAM	3.9	40	4	1	J PINE	PLANT
12-00	22	141	36-W	000	51	066	3	013	BALSAM	5.6	00	0	0	ASPEN	SPROUT
02-00	30	140	36-W	000	44	066	3	033	BALSAM	5.7	99	3	3	N PINE	PLANT
13-00	08	140	37-W	000	32	065	2	010	BALSAM	3.7	00	0	0	WH SPR	PLANT
01-00	09	140	37-W	000	32	065	2	009	BALSAM	2.6	00	0	0	WH SPR	PLANT

TOTAL STANDS 22 TOTAL ACRES 332

LISTING OF ALL STANDS TO BE MANAGED ON AN ALL-AGED BASIS

SIZE CLASS: 4

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
17-00	17	141	36-W	000	34	055	1	005	BALSAM	1.3	00	0	0	086

TOTAL STANDS 1 TOTAL ACRES 5

BLACK SPRUCE

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:BLACK SPRUCE ROTATION AGE: 100

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	00	247	112	114	115	116	116	117	118	119	120
11-20	20	00	247	112	114	115	116	116	117	118	119
21-30	87	20	00	247	112	114	115	116	116	117	118
31-40	08	87	20	00	247	112	114	115	116	116	117
41-50	38	08	87	20	00	247	112	114	115	116	116
51-60	35	38	08	87	20	00	247	112	114	115	116
61-70	61	35	38	08	87	20	00	247	112	114	115
71-80	141	61	35	38	08	87	20	00	230	112	114
81-90	75	141	61	35	38	08	87	20	00	119	112
91-100	233	75	141	61	35	38	08	73	00	00	07
100+	257	271	241	276	230	157	87	00	00	00	00
CCB TOTAL	955	983	990	998	1006	1014	1022	1030	1038	1046	1054
HARVEST	219	105	106	107	108	108	109	110	111	112	113
CVN	43	21	21	21	21	21	21	22	22	22	22
UNCHG	176	84	85	86	87	87	88	88	89	90	91
ADDS	59	28	29	29	29	29	29	30	30	30	30
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	12										
FUT 0-10	247	112	114	115	116	116	117	118	119	120	121

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:BLACK SPRUCE

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	955
10 YEAR ALLOWABLE CUT ACREAGE	102
ANNUAL ALLOWABLE CUT ACREAGE	10
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	43

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

TMRACK
43

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: BLACK SPRUCE

TOTAL ACRES IN TYPE: 955
10 YEAR ALLOWABLE CUT: 102
ANNUAL ALLOWABLE CUT: 10

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
BL SPR	163	13	0	0	0	176
TMRACK	43	0	0	0	0	43
TOTAL	206	13	0	0	0	219

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
16-00	36	140	33-W	000	45	095	1	053	BL SPR	4.5	23	1	1
04-00	09	140	37-W	000	34	092	1	012	BL SPR	2.6	00	0	0
19-00	27	141	36-W	000	34	084	2	014	BL SPR	3.5	23	3	1
09-00	27	141	36-W	000	34	080	1	021	BL SPR	5.0	23	2	1
21-00	25	141	37-W	000	26	076	2	053	BL SPR	3.4	00	0	0
27-00	25	141	37-W	000	34	073	2	022	BL SPR	4.9	40	2	1
05-00	05	142	32-W	000	48	075	3	010	BL SPR	8.6	00	0	0
04-00	19	142	38-W	000	41	070	1	030	BL SPR	2.1	55	2	2
02-00	05	142	32-W	000	44	058	1	020	BL SPR	3.5	00	0	0
22-00	05	142	32-W	000	44	058	3	014	BL SPR	4.7	00	0	0
11-00	02	139	33-W	000	40	042	2	018	BL SPR	0.0	00	0	0
01-00	24	142	37-W	000	33	024	1	011	BL SPR	0.4	00	0	0
02-00	34	139	38-W	000	55	024	1	015	BL SPR	0.4	23	1	0
09-00	06	141	36-W	000	42	019	2	045	BL SPR	0.0	00	0	0

TOTAL STANDS 14 TOTAL ACRES 338

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN SPECIES	PLANS METHOD
26-00	26	141	36-W	000	32	125	1	006	BL SPR	4.7	23	3	1	BL SPR	ART SD
14-00	26	141	36-W	000	32	125	2	032	BL SPR	4.7	23	3	1	BL SPR	PLANT
08-00	27	141	36-W	000	32	125	1	003	BL SPR	4.7	23	3	1	BL SPR	ART SD
19-00	15	141	36-W	000	36	125	2	004	BL SPR	10.0	00	0	0	BL SPR	ART SD
07-00	11	142	32-W	000	50	128	6	076	BL SPR	10.7	00	0	0	BL SPR	PLANT
13-00	11	142	32-W	000	50	128	6	015	BL SPR	10.7	00	0	0	BL SPR	PLANT
07-00	18	142	36-W	000	36	115	1	021	BL SPR	3.0	42	1	0	TMRACK	PLANT
03-00	06	141	36-W	000	34	117	3	015	BL SPR	10.0	00	0	0	BL SPR	PLANT
12-00	01	141	37-W	000	54	117	4	025	BL SPR	0.4	00	0	0	BL SPR	PLANT
15-00	01	141	37-W	000	40	117	1	022	BL SPR	3.0	00	0	0	TMRACK	PLANT

TOTAL STANDS 10 TOTAL ACRES 219

TAMARACK

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:TAMARACK ROTATION AGE: 100

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	00	606	303	300	299	297	295	295	292	290	289
11-20	80	00	606	303	300	299	297	295	295	292	290
21-30	215	80	00	606	303	300	299	297	295	295	292
31-40	253	215	80	00	606	303	300	299	297	295	295
41-50	167	253	215	80	00	606	303	300	299	297	295
51-60	261	167	253	215	80	00	606	303	300	299	297
61-70	192	261	167	253	215	80	00	606	303	300	299
71-80	395	192	261	167	253	215	80	00	606	303	300
81-90	284	395	192	261	167	253	215	80	00	606	303
91-100	685	284	395	192	261	167	253	215	80	00	418
100+	484	786	749	825	700	646	500	441	346	118	00
CCB TOTAL	3016	3239	3221	3202	3184	3166	3148	3131	3113	3095	3078
HARVEST	383	321	319	317	315	313	312	310	308	306	305
CVN	73	61	61	60	60	60	59	59	59	58	58
UNCHG	310	260	258	257	255	253	253	251	249	248	247
ADDS	51	43	42	42	42	42	42	41	41	41	41
NONCOM	322										
CVN	77										
UNCHG	245										
ADDS	00										
FUT 0-10	606	303	300	299	297	295	295	292	290	289	288

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:TAMARACK

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	3016
10 YEAR ALLOWABLE CUT ACREAGE	298
ANNUAL ALLOWABLE CUT ACREAGE	29
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	73

ACRES TRANSFERRED TO OTHER TYPES AFTER HARVEST

BL SPR	WCEDAR	ASPEN
23	31	19

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: TAMARACK

TOTAL ACRES IN TYPE: 3016
10 YEAR ALLOWABLE CUT: 298
ANNUAL ALLOWABLE CUT: 29

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
TMRACK	279	185	10	81	0	555
BL SPR	25	0	10	0	0	35
WCEDAR	84	0	0	0	0	84
ASPEN	0	0	0	0	31	31
TOTAL	388	185	20	81	31	705

LISTING OF ALL STANDS TO BE REGENERATED WITHOUT HARVEST

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
02-00	06	140	37-W	000	49	034	2	020	TMRACK	0.6	00	0	0	TMRACK	PLANT
12-00	16	142	36-W	000	50	034	1	131	TMRACK	0.7	00	0	0	TMRACK	PLANT
03-00	25	140	39-W	000	58	019	2	021	TMRACK	0.8	42	1	1	TMRACK	PLANT
03-00	30	140	33-W	000	56	014	1	029	TMRACK	0.4	00	0	0	WCEDAR	PLANT
10-00	06	141	36-W	000	30	015	1	024	TMRACK	0.0	00	0	0	WCEDAR	PLANT

TOTAL STANDS 5 TOTAL ACRES 225

LISTING OF ALL STANDS TO BE REGENERATED AFTER SALVAGE

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
05-00	36	140	36-W	000	55	094	1	010	TMRACK	5.5	00	0	0	TMRACK	ART SD
01-00	36	140	36-W	000	55	094	1	027	TMRACK	5.0	00	0	0	TMRACK	ART SD
14-00	18	140	37-W	000	33	079	1	010	TMRACK	2.2	00	0	0	TMRACK	ART SD
08-00	18	142	36-W	000	34	029	1	012	TMRACK	0.5	42	1	0	ASPEN	SPROUT
12-00	21	141	36-W	000	46	020	1	026	TMRACK	0.4	00	0	0	TMRACK	PLANT
03-00	12	139	39-W	000	56	014	1	012	TMRACK	0.2	00	0	0	BL SPR	PLANT

TOTAL STANDS 6 TOTAL ACRES 97

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
17-00	09	140	37-W	000	33	078	1	016	TMRACK	3.1	00	0	0
04-00	26	140	33-W	000	41	054	1	018	TMRACK	3.1	52	2	2
05-00	36	138	38-W	000	49	049	1	029	TMRACK	2.5	00	0	0
02-00	34	139	33-W	061	35	045	1	026	TMRACK	2.6	00	0	0
27-00	08	140	37-W	000	41	042	1	011	TMRACK	4.5	42	1	3
09-00	07	140	37-W	000	42	041	1	036	TMRACK	3.6	00	0	0
12-00	12	142	37-W	000	36	042	2	010	TMRACK	0.7	00	0	0
07-00	34	134	39-W	000	44	023	1	010	TMRACK	0.2	00	0	0
17-00	16	142	36-W	000	37	011	2	029	TMRACK	0.5	00	0	0

TOTAL STANDS 9 TOTAL ACRES 185

LISTING OF ALL STANDS TO BE HARVESTED AND REGENERATED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	REGEN PLANS SPECIES	METHOD
04-00	29	140	37-W	000	37	179	2	010	TMRACK	6.0	99	2	3	TMRACK	ART SD
29-00	26	141	36-W	000	27	148	1	013	TMRACK	6.4	23	3	1	BL SPR	PLANT
15-00	26	141	36-W	000	27	148	1	027	TMRACK	6.4	23	3	1	TMRACK	PLANT
23-00	26	141	36-W	000	27	148	2	023	TMRACK	6.4	23	3	1	TMRACK	PLANT
02-00	23	142	38-W	000	43	132	2	031	TMRACK	6.4	00	0	0	WCEDAR	PLANT
08-00	06	141	36-W	000	40	127	3	008	TMRACK	12.0	00	0	0	TMRACK	PLANT
04-00	06	141	36-W	000	42	127	3	018	TMRACK	8.0	00	0	0	TMRACK	NAT SD
08-00	15	139	37-W	000	37	108	2	007	TMRACK	8.0	00	0	0	TMRACK	PLANT
02-00	14	142	37-W	000	46	108	2	019	TMRACK	6.4	42	1	1	TMRACK	ART SD
06-00	12	142	36-W	000	37	106	4	019	TMRACK	4.9	42	1	1	ASPEN	SPROUT
06-00	18	140	37-W	000	38	106	2	023	TMRACK	7.6	42	1	1	TMRACK	NAT SD
10-00	18	140	37-W	000	38	106	2	014	TMRACK	8.6	42	1	1	TMRACK	NAT SD
25-00	17	140	37-W	000	38	106	2	015	TMRACK	8.6	42	1	1	TMRACK	NAT SD
01-00	16	140	40-W	000	40	105	2	016	TMRACK	11.2	00	0	0	TMRACK	PLANT
07-00	15	139	37-W	000	40	105	2	014	TMRACK	6.3	00	0	0	TMRACK	ART SD
03-00	33	142	38-W	000	45	105	5	011	TMRACK	22.0	00	0	0	TMRACK	NAT SD
14-00	31	140	36-W	000	34	103	2	010	TMRACK	12.3	42	2	2	TMRACK	UNDERS
01-00	12	142	37-W	000	36	104	2	011	TMRACK	8.9	99	3	3	TMRACK	ART SD
11-00	12	142	37-W	000	36	104	2	025	TMRACK	10.0	99	2	3	TMRACK	ART SD
12-00	12	141	37-W	000	45	103	2	010	TMRACK	8.6	00	0	0	BL SPR	UNDERS
08-00	18	140	37-W	000	38	101	3	015	TMRACK	15.2	42	1	0	TMRACK	ART SD
08-00	24	142	37-W	000	39	100	6	036	TMRACK	22.3	99	1	1	TMRACK	ART SD
01-00	17	140	37-W	000	35	099	2	008	TMRACK	8.2	00	0	0	TMRACK	ART SD

TOTAL STANDS 23 TOTAL ACRES 383

LISTING OF ALL STANDS TO BE MANAGED ON AN ALL-AGED BASIS

SIZE CLASS: 2

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
03-00	21	142	36-W	000	42	025	2	012	TMRACK	0.4	99	1	1	013

SIZE CLASS: 4

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M	BASAL AREA
01-00	18	140	37-W	000	42	041	1	016	TMRACK	3.6	00	0	0	043

TOTAL STANDS 2 TOTAL ACRES 28

WHITE CEDAR

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:WHITE CEDAR ROTATION AGE: 120

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	00	139	132	187	259	369	517	732	1029	1447	2041
11-20	00	00	139	132	187	259	369	517	732	1029	1447
21-30	02	00	00	139	132	187	259	369	517	732	1029
31-40	00	02	00	00	139	132	187	259	369	517	732
41-50	00	00	02	00	00	89	127	181	253	359	505

51-60	22	00	00	02	00	00	00	00	00	00	00
61-70	18	22	00	00	02	00	00	00	00	00	00
71-80	30	18	22	00	00	00	00	00	00	00	00
81-90	07	30	18	22	00	00	00	00	00	00	00
91-100	43	07	30	18	15	00	00	00	00	00	00
100+	12	43	26	22	00	00	00	00	00	00	00
CCB TOTAL	134	261	369	522	734	1036	1459	2058	2900	4084	5754
HARVEST	12	24	34	47	67	94	133	187	263	371	523
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	12	24	34	47	67	94	133	187	263	371	523
ADDS	54	108	153	212	302	423	599	842	1184	1670	2354
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	73										
FUT 0-10	139	132	187	259	369	517	732	1029	1447	2041	2877

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:WHITE CEDAR

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	134
10 YEAR ALLOWABLE CUT ACREAGE	12
ANNUAL ALLOWABLE CUT ACREAGE	1
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

RECOMMENDED REGERATION TREATMENT --

COVER TYPE: WHITE CEDAR

TOTAL ACRES IN TYPE: 134
10 YEAR ALLOWABLE CUT: 12
ANNUAL ALLOWABLE CUT: 1

REGEN	ARTIFICIAL		NATURAL			
SPECIES	PLANT	SEED	UNDER	SEED	SPROUT	TOTAL
WCEDAR	12	0	0	0	0	12
TOTAL	12	0	0	0	0	12

UPLAND BLACK SPRUCE

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:UPLAND BLACK SPRUCE ROTATION AGE: 802

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	00	00	00	00	00	00	00	00	00	00	00
11-20	00	00	00	00	00	00	00	00	00	00	00
21-30	137	00	00	00	00	00	00	00	00	00	00
31-40	00	137	00	00	00	00	00	00	00	00	00
41-50	00	00	137	00	00	00	00	00	00	00	00
51-60	07	00	00	137	00	00	00	00	00	00	00
61-70	00	07	00	00	137	00	00	00	00	00	00
71-80	00	00	07	00	00	137	00	00	00	00	00
81-90	00	00	00	07	00	00	137	00	00	00	00
91-100	00	00	00	00	07	00	00	137	00	00	00
100+	00	00	00	00	00	07	07	07	144	144	144
CCB TOTAL	144	144	144	144	144	144	144	144	144	144	144
HARVEST	00	04	04	04	04	04	04	04	04	04	04
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	00										
FUT 0-10	00	00	00	00	00	00	00	00	00	00	00

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:UPLAND BLACK SPRUCE

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	144
10 YEAR ALLOWABLE CUT ACREAGE	4
ANNUAL ALLOWABLE CUT ACREAGE	0
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

CUTOVER AREA

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:CUTOVER AREA ROTATION AGE:

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	706	00	00	00	00	00	00	00	00	00	00
11-20	00	706	00	00	00	00	00	00	00	00	00
21-30	00	00	706	00	00	00	00	00	00	00	00
31-40	00	00	00	706	00	00	00	00	00	00	00
41-50	00	00	00	00	706	00	00	00	00	00	00
51-60	00	00	00	00	00	706	00	00	00	00	00
61-70	00	00	00	00	00	00	706	00	00	00	00
71-80	00	00	00	00	00	00	00	706	00	00	00
81-90	00	00	00	00	00	00	00	00	706	00	00
91-100	00	00	00	00	00	00	00	00	00	706	00
100+	00	00	00	00	00	00	00	00	00	00	706
CCB TOTAL	706	706	706	706	706	706	706	706	706	706	706
HARVEST	00	00	00	00	00	00	00	00	00	00	00
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	00										
FUT 0-10	00	00	00	00	00	00	00	00	00	00	00

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:CUTOVER AREA

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	706
10 YEAR ALLOWABLE CUT ACREAGE	0
ANNUAL ALLOWABLE CUT ACREAGE	0
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

LOWLAND GRASS

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:LOWLAND GRASS ROTATION AGE:

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	974	00	00	00	00	00	00	00	00	00	00
11-20	00	974	00	00	00	00	00	00	00	00	00
21-30	00	00	974	00	00	00	00	00	00	00	00
31-40	00	00	00	974	00	00	00	00	00	00	00
41-50	00	00	00	00	974	00	00	00	00	00	00
51-60	00	00	00	00	00	974	00	00	00	00	00
61-70	00	00	00	00	00	00	974	00	00	00	00
71-80	00	00	00	00	00	00	00	974	00	00	00
81-90	00	00	00	00	00	00	00	00	974	00	00
91-100	00	00	00	00	00	00	00	00	00	974	00
100+	00	00	00	00	00	00	00	00	00	00	974
CCB TOTAL	974	974	974	974	974	974	974	974	974	974	974
HARVEST	00	00	00	00	00	00	00	00	00	00	00
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	00										
FUT 0-10	00	00	00	00	00	00	00	00	00	00	00

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:LOWLAND GRASS

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	974
10 YEAR ALLOWABLE CUT ACREAGE	0
ANNUAL ALLOWABLE CUT ACREAGE	0
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

UPLAND GRASS

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:UPLAND GRASS ROTATION AGE:

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	674	00	00	00	00	00	00	00	00	00	00
11-20	00	674	00	00	00	00	00	00	00	00	00
21-30	00	00	674	00	00	00	00	00	00	00	00
31-40	00	00	00	674	00	00	00	00	00	00	00
41-50	00	00	00	00	674	00	00	00	00	00	00
51-60	00	00	00	00	00	674	00	00	00	00	00
61-70	00	00	00	00	00	00	674	00	00	00	00
71-80	00	00	00	00	00	00	00	674	00	00	00
81-90	00	00	00	00	00	00	00	00	674	00	00
91-100	00	00	00	00	00	00	00	00	00	674	00
100+	00	00	00	00	00	00	00	00	00	00	674
CCB TOTAL	674	674	674	674	674	674	674	674	674	674	674
HARVEST	00	00	00	00	00	00	00	00	00	00	00
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	00										
FUT 0-10	00	00	00	00	00	00	00	00	00	00	00

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:UPLAND GRASS

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	674
10 YEAR ALLOWABLE CUT ACREAGE	0
ANNUAL ALLOWABLE CUT ACREAGE	0
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

LISTING OF ALL STANDS TO BE RESERVED

ST-NBR	SCTN	TWN	RNGE	MGMT	SI	AGE	DEN	ACRES	MA-SPEC	VOL	DAM	%	M
07-00	16	141	35-W	000	00	009	0	056	NONE	0.0	00	0	0
04-00	36	139	32-W	000	00	006	0	057	NONE	0.0	00	0	0
01-00	34	139	35-W	000	00	006	0	022	NONE	0.0	00	0	0

TOTAL STANDS 3 TOTAL ACRES 135

UPLAND BRUSH

REGULATION SCHEME FOR ROTATION AGE + 10 YEARS

COVER TYPE:UPLAND BRUSH ROTATION AGE:

	1984 1993	1994 2003	2004 2013	2014 2023	2024 2033	2034 2043	2044 2053	2054 2063	2064 2073	2074 2083	> THAN 100 YR
0-10	324	00	00	00	00	00	00	00	00	00	00
11-20	00	324	00	00	00	00	00	00	00	00	00
21-30	00	00	324	00	00	00	00	00	00	00	00
31-40	00	00	00	324	00	00	00	00	00	00	00
41-50	00	00	00	00	324	00	00	00	00	00	00
51-60	00	00	00	00	00	324	00	00	00	00	00
61-70	00	00	00	00	00	00	324	00	00	00	00
71-80	00	00	00	00	00	00	00	324	00	00	00
81-90	00	00	00	00	00	00	00	00	324	00	00
91-100	00	00	00	00	00	00	00	00	00	324	00
100+	00	00	00	00	00	00	00	00	00	00	324
CCB TOTAL	324	324	324	324	324	324	324	324	324	324	324
HARVEST	00	00	00	00	00	00	00	00	00	00	00
CVN	00	00	00	00	00	00	00	00	00	00	00
UNCHG	00	00	00	00	00	00	00	00	00	00	00
ADDS	00	00	00	00	00	00	00	00	00	00	00
NONCOM	00										
CVN	00										
UNCHG	00										
ADDS	00										
FUT 0-10	00	00	00	00	00	00	00	00	00	00	00

ANNUAL ALLOWABLE CUT FOR THE FIRST 10 YEARS

COVER TYPE:UPLAND BRUSH

TOTAL CLEAR CUT ACREAGE IN COVER TYPE	324
10 YEAR ALLOWABLE CUT ACREAGE	0
ANNUAL ALLOWABLE CUT ACREAGE	0
TOTAL ACREAGE TRANSFERRED TO OTHER COVER TYPES	0

EQUIPMENT

Equipment Administration

The Park Rapids Area has a large complement of equipment necessary to accomplish the wide range of work programs in the Area. All equipment is accounted for in a computerized inventory system of non-expendable, semi-expendable, and expendable equipment.

Because of it's condition and age, much of the current equipment in the Area has been in service beyond its normal life expectancy. In recent years, funding has been inadequate, allowing for replacement of pickups and cars, but little else. This tends to inflate the normal annual maintenance cost. Since there has never been a standaridized euipment replacement schedule and funding has been limited, major upgrading of equipment is needed now. Also, specialized fire fighting equipment is needed to upgrade to an acceptable standard.

The Park Rapids Area annual budget does not inlcude an allocation for major equipment purchases. Items costing over $300 must be requisitioned through DNR Field Services, which are prioritized at the Regional level, among all DNR disciplines. With limited funding Department wide, needed items cannot be purchased on schedule.

Maintenance is done by the Area Repairman, or in local garages. Major maintenance or repair work is done either at the Bemidji Region shop or at the DNR Northern Service Center.

Table 1 lists the current Park Rapids Area major equipment, annual maintenance cost, and replacement schedule and cost. The average annual maintenanace cost is estimated at $7,635.

Because there is no balanced schedule for replacement, there are "peaks and valleys" in equipment budget needs. As stated earlier, Park Rapids Area is behind in needed replacements. Initially, $183,250 should be spent in 1987 to come up to standard (according to the following Equipment Replacement Schedule). However, this is unreasonable to expect. If the goal would be to achieve this standard by the year 2000, then the average annual expenditure for major equipment replacement should be about $35,000 per year. An additional $5,000 per year should be budgeted for miscellaneous equipment replacement such as: hand tools, pump tanks, safety equipment, picnic tables, shop equipment, professional equipment, culverts, etc.

Table 1. Equipment Replacement Schedule for Park Rapids Area

Item	Life Expectancy (Years)	Remarks
Pickup-1/2 Ton, 2x4	6	PFM Units; high mileage
Pickup-3/4 Ton, 2x4	8	General Use (Avg. 10,000 mi/yr.)
Pickup-3/4 Ton, 4x4	10	General Use (Ave. 8,000 mi/yr.)
Car - Station Wagon	6	Area Staff Car (Avg. 15,000 mi/yr.)
Truck-Schwarts Tilt-Bed	20	General Use (Avg. 4,000 mi/yr.)
Truck-Dump, 2-Ton	20	General Use (Avg. 4,000 mi/yr.)
Crawler Tractor	20	May vary, more or
Grader	20	less, depending on
Bombardier, J-5	20	use, condition, and availability of parts.
Mower-John Deer Tractor/Mower	8	Heavy use at Area H.Q.
Mower-Brush, Rotary	8	Hard Use;trails & campgrounds
Mower-Lawn, Rotary	5	General Use
Chainsaw	5	May vary, depending
Snowmobile	8	on use
3-Wheeler	10	

Type of Equipment	Inv. #	Year	Model	Mileage (1)	Location	Cond.	Min. $	Replacement $	Replace Yr
1/2 Ton,2x4	3040-508404	83	Ford	160	G	200	8,000		89
	3040-223189	76	Dodge	82,000	165	F	200	10,000 (2)	84
	3040-473520	82	Ford	42,000	161	G	200	10,000 (2)	90
	3040-483362	82	Ford	64,000	162	G	200	8,000	88
	3040-423881	80	Ford	45,000	163	G	200	8,000	88
	3040-118307	73	Intl.	88,000	160	F	200	10,000 (2)	81
	3040-557765	86	Chevy	400	162	N	200	10,000	92
3/4 Ton,2x4	3050-508394	83	Ford	31,000	160	G	250	10,000	91
	3050-454989	81	Ford	31,000	160	G	250	10,000	89
3/4 Ton,4x4	3056-268335	77	GMC	52,000	165	F	250	12,000	87
	3056-239954	76	GMC	85,000	161	P	250	12,000	86
	3056-457989	81	Dodge	52,000	164	G	250	12,000	91
	3056-483530	82	Chevy	33,000	164	G	250	12,000	92
	3056-557617	86	Jeep	500	161	N	250	12,000	96
3/4 Ton,4x4 Crew Cab	3056-596773	78	Dodge	43,000	160	G	250	0 (3)	(4)
Station Wagon	3021-405702	80	Ford	86,000	160	F	200	8,000	86

Type of Equipment	Inv. #	Year	Model	Mileage (1)	Location	Condition	Maint. $	Replacement $	Replace Yr
Schwartz Dump Truck	3157-2780	69	Chevy	80,000	160	F	500	30,000	89
Dump Truck	3143-1858	62	Chevy	88,000	165	P	500	30,000	82
Dump Truck	3153-422284	80	Ford	24,000	160	G	500	30,000	00
6x6 Tanker	3183-278756	54	GMC	28,000	160	F	200	0 (3)	(4)
All Terrain Vehicles									
J-5	3350-709	70	Bomb.	1,300H	160	G	300	25,000	90
Tractors/ Crawlers									
450	3230-606	67	JD	2,900H	160	G	200	35,000	87
D-2	3701-276	50	Cat	3,180H	164	P	200	30,000	70
T-6	3701-239	50	Intl.	3,750H	165	F	200	30,000	70
Road Grader	3212-192	70	All.	4,260H	160	G	200	15,000	90
Lawn Mowers									
Riding	3672-528637	84	Bolen	50 Hr.	165	E	30	2,500	92
	3653-500394	82	JD	195 Hr.	160	G	50	3,000	90
Self Propelled	3666-416676	80	Bach.	200 Hr.	160	F	30	600	88
Power Push	3692-476114	82	Snap.		160	G	25	200	87
	3690-490356	83	Snap.		165	G	25	200	88
	3692-557997	84	Snap.		160	G	25	200	89

Type of Equipment	Inv. #	Year	Model	Mileage (1)	Location	Condition	AM	Replacement $	Replacement Yr
Chainsaws	3736-526870	82	Mac.		160	G	40	250	87
	3736-557653	86	Poul.		160	E	40	300	91
	3736-379450	79	Jon.		160	F	40	300	84
	3736-164775	74	Mac.		165	F	40	250	80
	3736-500405	82	Mac.		160	G	40	250	87
Snowmobiles	3348-373463	79	Cat	1,600	160	F	50	2,500	87
	3348-373461	79	Cat	1,800	160	F	50	2,500	87
3-Wheeler	3351-558228	85	Yam.	100	160	E	50	2,500	95

Note: All of the below listed equipment should not be replaced on a scheduled basis. Use, condition, and availability of parts should determine replacement need.

Fire Equipment

Fire Pumps	1249-1203	69	Myers		160	F	20	800	
	1249-782	54	G.R.		165	F	20	800	
	1249-784	54	G.R.		165	F	20	800	
	1249-808	55	Barnes		165	F	20	800	
	1249-978	63	Barnes		165	F	20	800	
	1249-233912	76	Hypro		165	F	30	800	
	1249-604	49	Jaeger		160	P	20	800	
	1249-856	57	Barnes		160	P	20	800	
	1249-898	62	Barnes		164	F	20	800	
	1249-954	63	Barnes		160	F	20	800	

Type of Equipment	Inv. #	Year	Model	Mileage (1)	Location	Condition	Annual $	Replacement $	Replacement Yr
	1249-983	63	Barnes	160	F	20	800		
	1249-1057	67	Barnes	160	P	20	800		
	1249-1062	67	Barnes	164	F	20	800		
	1249-1125	68	Barnes	160	G	20	800		
	1249-1146	68	Meyers	161	F	20	800		
	1249-1167	68	Meyers	160	F	20	800		
	1249-109075	71	Deming	160	G	20	800		
	1249-250127	76	Hypro	160	F	30	800		
	1249-254008	76	Wayne	160	F	20	800		
	1249-257804	76	Wayne	160	F	20	800		
	1249-356544	78	Homlite	160	G	30	800		
Water Tanks	1318-1938	55	Steel	165	P		400		
	1318-2500	66	Steel	165	F		400		
	1318-1855	54	Steel	160	P		400		
	1318-2153	60	Steel	160	F		400		
	1318-2317	63	Steel	164	F		400		
	1318-2354	64	Steel	160	F		400		
	1318-2496	66	Steel	161	F		400		
	1318-2513	66	Steel	160	F		400		
	1318-3753	70	Steel	160	F		200		
	1318-3754	70	Steel	160	F		200		
	1318-117475	72	Steel	160	F		400		
High Pressure Units	1889-297611	77	Western	164	G	50	6,000		
	1889-297612	77	Western	161	G	50	6,000		
	1889-427570	80	Western	165	G	50	6,000		

Type of Equipment	Inv. #	Year	Model	Mileage (1)	Location	Condition	$	Replacement $	Replacement Yr
Fire Plows	783-198489	75	Hester		165	G	50	3,000	
	7158-51	62	Hester		164	G	25	2,000	
	2234-88	62	Hester		160	G	25	2,000	
Radios									
Base Sets	1841-436088	80	GE		165	G		4,000	
	1841-364341	79	Mtrla		160	G		4,000	
Mobile	1832-360488	79	Mtrla		160	G		2,000	
	1832-360489	79	Mtrla		164	G		2,000	
	1832-360491	79	Mtrla		164	G		2,000	
	1832-360492	79	Mtrla		161	G		2,000	
	1832-360498	79	Mtrla		161	G		2,000	
	1832-360499	79	Mtrla		160	G		2,000	
	1832-360504	79	Mtrla		160	G		2,000	
	1832-360502	79	Mtrla		165	G		2,000	
	1832-360503	79	Mtrla		165	G		2,000	
	1832-436056	80	GE		160	G		2,000	
	1832-436057	80	GE		160	G		2,000	
	1832-436058	80	GE		160	G		2,000	
	1832-218646	76	RCA		160	G		2,000	
	1832-360496	79	Mtrla		163	G		2,000	
Portable	1834-360558	78	GE		160	G		1,000	
	1834-360559	78	GE		160	G		1,000	
	1834-360560	78	GE		160	G		1,000	
	1834-360561	78	GE		160	G		1,000	

Type of Equipment	Inv. #	Year	Model	Mileage (1)	Location	Cond. $	Amt.	Repl. $	Repl. Yr
	1834-360562	78	GE		160	G		1,000	
	1834-360647	79	GE		160	G		1,000	
	1834-360648	79	GE		160	G		1,000	
	1834-391152	79	GE		160	G		1,000	
	1834-391153	79	GE		160	G		1,000	
	1834-400815	79	Mtrla		160	G		1,000	
	1834-400816	79	Mtrla		160	G		1,000	
	1834-400817	79	Mtrla		160	G		1,000	
	1834-459036	81	Mtrla		160	G		1,200	
	1834-459037	81	Mtrla		160	G		1,200	
	1834-459038	81	Mtrla		160	G		1,200	
	1834-459039	81	Mtrla		160	G		1,200	
	1834-459040	81	Mtrla		160	G		1,200	
	1834-459041	81	Mtrla		160	G		1,200	
	1834-459042	81	Mtrla		160	G		1,200	
	1834-459043	81	Mtrla		160	G		1,200	
	1834-459044	81	Mtrla		160	G		1,200	
	1834-459045	81	Mtrla		160	G		1,200	
	1834-469051	82	Mtrla		160	G		1,200	
	1834-469052	82	Mtrla		160	G		1,200	

(1) Mileage as of June, 1986
(2) To be replaced with 3/4 ton 2x4
(3) Surplus Unit
(4) As Needed Miscellaneous Equipment Replacement

Generally, the present radio system is very adequate with no major problems. Replacement should be as technology makes major improvements or individual units continually breakdown. MnDOT Radio Technicians should advise and assist in making these decisions. When the Elbow Lake Office closes, the base radio set should be installed at Detroit Lakes.

Pumps and slip-on pump units should be replaced as they break down, with more modern, high pressure pumps. The initial attack slip-on pumpers should be all high-pressure with fiber-glass tanks. Two slip-on units per year should be replaced until fully upgraded.

The JD-450 is the primary fire cat. A mounted fire plow (Seko or equivalent) would improve its operation and effectiveness.

Other semi-expendable and expendable equipment should be replaced only as needed to accomplish the programs. Equipment that is found to be surplus to the Area's needs should be replaced and made available for transfer to other Region I Forestry Areas and then to all disciplines in Region I.