

THE WESTERN MANAGEMENT SUBUNIT

A. BACKGROUND

The Western Management Subunit includes the portions of the Moose Range that lie east of Fishhook Road and includes portions of the Moose Creek drainage, and lands around Wishbone Hill and the Sutton community. The subunit has moderate-to-high values for fish, wildlife and forestry resources. Big and small game hunting, fishing and trapping are historic uses of the subunit and occur throughout the subunit. Subsistence and sport harvest both occur but cannot be readily distinguished. Wildlife viewing occurs in road and trail-accessible areas of the subunit. Habitat enhancement research efforts and regeneration of habitat projects have been established in this subunit and are ongoing. Moose habitat is being enhanced in the subunit to offset critical habitat being lost to development elsewhere in the Matanuska Valley. Wishbone Lake has high valued rainbow sportfishing opportunities.

Lower elevations of this subunit have high potential for personal and commercial firewood harvest, while upper elevations, above 2,000 feet, have minimal timber value. Some of the highest valued coal resources in the state are located in the lower half of the Western Management Subunit. Existing coal leases include 7,550 acres of land around Wishbone Hill. Within existing coal leases, the most probable location of mining development is off the Premier Mine Road, along existing mining roads at T19N, R2E, and northeast of Jonesville, near Knob Hill in T19N, R3E. The site for mine buildings cannot be determined until more is known about the exact location of the best coal. It may be on state, borough or private land. If the lessee applies for the use of additional state land for this purpose, a surface lease will be necessary and will be subject to interagency and public review. If the lessee uses state land within the existing coal lease for this purpose, the location will be subject to review and approval as part of the plan of operations.

Public lands in the Western Management Subunit are used at moderate levels for dispersed outdoor recreational activities. There are no existing developed outdoor recreational facilities inside the Moose Range in this subunit. The predominant scenic values in this subunit, as viewed from the Glenn Highway, include Arkose Ridge, Wishbone Hill and Granite Peak. The best grazing lands in the Range are found in the subunit, and approximately 7,000 acres are already under lease or permit.

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B. MANAGEMENT INTENT

The management intent for the Western Management Subunit is to enhance a maximum amount of suitable acres of land into browse-producing habitat and to apply the knowledge learned in the southwest corner of the subunit to other areas in the Range. The subunit will continue to be managed for maximum moose harvesting and utilization of other fish and wildlife species through hunting, trapping and fishing. There is a local need for personal firewood, and this need will be met to the extent possible by emphasizing maintenance and improvement of fish and wildlife habitat in conjunction with timber harvest.

Coal development in the Western Management Subunit will proceed in the Wishbone Hill area according to existing lease contracts. The post-mining land use is designated as wildlife habitat primarily beneficial to moose and reclamation efforts will be directed toward producing habitat that is primarily beneficial to moose. In situations where coal development is scheduled, utilization of timber and grazing resources on lands leased for coal will be encouraged. The entire subunit will remain open for locatable mineral entry and for the leasing of coal and oil and gas. It is possible that the state will lease small tracts adjacent to the existing coal leases if it appears that they contain coal.

Dispersed outdoor recreational activities will be allowed to continue in the Western Management Subunit. Popular activities such as hunting big and small game, trapping, wildlife viewing, fossil hunting, off-road vehicle riding on old mining roads between the Jonesville and Premier Mines, horseback riding, hiking, and fishing in Wishbone Lake will continue. The only proposed outdoor recreational development in the subunit is the expansion of the existing Moose Creek State Recreation Site (this is actually outside the Range, adjacent to this subunit). Important scenic areas viewed from the Glenn Highway are Arkose Bench, Wishbone Hill and Granite Peak. Habitat enhancement may occur in these areas, but its effect on the scenic values should be determined and enhancement techniques selected that will have minimum adverse effect on the view.

There is one long-term grazing lease and one short-term grazing permit in the Western Management Subunit. These areas are appropriate for grazing under the guidelines in this plan. Two additional grazing areas are identified in this subunit. These areas should be utilized for grazing research purposes whenever possible. Existing grass forage located on coal-leased lands around Wishbone Hill may be utilized for grazing under a grazing permit.

C. GUIDELINES

1. FISH, WILDLIFE AND FORESTRY

- a. Resource Management. This subunit will be managed primarily to maintain, protect and, if necessary, enhance the following fish and wildlife resources and habitats:

Moose throughout the subunit.
Brown bear in upper Moose Creek drainage.
Black bear throughout the subunit.
Dall sheep in upper Moose Creek, near Eska Mountain and in higher elevations.
Small game and fur bearers.
Riparian habitats and instream flow along Moose and Eska Creeks.
Chinook and coho salmon and Dolly Varden in Moose Creek.
Coho and Chinook salmon, Dolly Varden and rainbow trout in upper Wasilla Creek.
Dolly Varden in Eska Creek.
Rainbow trout in Slipper and Wishbone Lakes.
Habitat for moose and other wildlife species.
Buffer around Wishbone Lake, Moose and Wasilla Creeks.
And other species and habitats identified by ADF&G.

- b. Fish and Wildlife Utilization. The subunit will be managed to allow continuation of the following activities:

Hunting of big and small game and trapping throughout the subunit.
Sportfishing for anadromous, resident and stocked fish.
Wildlife viewing throughout the subunit.

- c. Habitat Enhancement

- (1) Research. The southwest portion of the Western Management Subunit (shown on Map 10, page 199) will be managed to produce moose habitat and secondarily to research and develop preferred methods for habitat enhancement and regeneration of browse. DNR, ADF&G, the U of A and others will work cooperatively on research efforts whenever possible. Techniques being tested include willow bundle planting, scarification, use of seed trees, chaining, selective cutting of spruce, and variations in the size and shape of cuts. Techniques to be tested include, but are not limited to, overstory removal, burning, pesticides, and plant trimming to promote sprouting.
- (2) Application. Habitat enhancement techniques that are proven to be cost-efficient and environmentally sound will be applied to the Wishbone Hill area and throughout the Moose Range.

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d. Timber Harvest and Habitat Enhancement Location

- (1) Coal Leases. Timber harvest will be pursued on existing coal development leases near Wishbone Hill to utilize existing timber resources (refer to Map 10 on page 199 for specific locations).
 - (2) Elevation. No timber may be harvested above 1,100 feet elevation except for habitat enhancement purposes.
 - (3) Locations. Timber harvest in the Western Management Subunit will occur in the areas shown on Map 10, page 199, with ADF&G approval. Specific sales locations and dates are listed in Table 5, on page 151. For 1986 - 1990, habitat enhancement efforts will be coordinated with timber harvests. (See Chapter Three--Fish, Wildlife and Forestry guideline on page 68 and 69, C.l.c for exceptions.) Possible road development is also indicated in Table 5 on page 151. The criteria for determining the location of cutting units includes access on existing roads/trails to allow the public to obtain firewood. Commercial timber harvests will occur in areas where cost effectiveness and habitat enhancement methods justify such harvests. Approximately 10,500 acres of timber in this management subunit may be harvested for personal or commercial use throughout the rotation period (45-60 years).
 - (4) Schedule. The schedule for forest product harvest in the Western Management Subunit is detailed in Table 5 on page 151. Any changes to this schedule are governed by Fish, Wildlife, and Forestry guideline C.l.e.(5) on page 73.
 - (5) Buffers. See Buffer guidelines on page 165 and 166 in this section and pages 68-69 in Chapter Three.
- e. Access for Timber Harvest and Habitat Enhancement. Where feasible, access related to timber harvest and habitat enhancement activities will be via the Buffalo Mine Road and existing mining roads between Premier Mine and Seventeen Mile Lake and north of Jonesville.
- f. Fisheries. ADF&G will maintain, protect, and enhance the fisheries and habitats of Wasilla, Moose and Eska Creeks and Wishbone Lake. To accomplish this, ADF&G will assess and update available biologic, hydrologic and water quality information, establish stream priorities and develop appropriate recommendations for field investigations and/or Board of Fisheries consideration, as time and funds allow.

**Table 5: FIVE YEAR TIMBER HARVEST/HABITAT ENHANCEMENT
SCHEDULE FOR THE MATANUSKA VALLEY MOOSE RANGE,
WESTERN MANAGEMENT SUBUNIT**

Abbreviations Used:

O/M	:	overmature	A	:	aspen
B	:	birch	LFP	:	low forage production
S	:	spruce	HPP	:	high production potential
C	:	cottonwood			

NOTE: Cutting units and burn locations are general areas only. Actual burns and cuts will be much smaller but within the given area. Burns will not exceed 150 acres.

PROJECT YEAR 1986

1. Project Reference Code: SC-920M (Elk's Lake #2).
 Location: SE1/4, Sec. 35, T19N, R2E, S.M.
 Acreage: 160 acres.
 Pre-resource Assessment: O/M, B/S, LFP, HPP.
 Forestry Management
 Category/Practices: Commercial seed tree cut - retain birch.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings; birch has a high moose forage production potential.
 Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1987.
 Access: Upgrade existing road.
 Notes: Being cut at present time. This site is actually outside the Moose Range, but will provide the same benefits (forest products and habitat enhancement) as the others listed.
2. Project Reference Code: SC-1000M (Premier Fuelwood #4).
 Location: S1/2, Sec. 32, T19N, R2E, S.M.
 Acreage: 320 acres.
 Pre-resource Assessment: O/M B/S; LFP, HPP.
 Forestry Management
 Category/Practices: Commercial seed tree cut - retain birch.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Project Results: Regeneration of birch seedlings; birch has a high moose forage production potential.
 Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1987.
 Access: Existing forestry road.

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PROJECT YEAR 1986 (continued)

3. Project Reference Code: MR-86-2 (Fishhook II) (Western Subunit pilot project).
Location: SW1/4, Sec. 36, T19N, R1E, S.M.
Acreage: 160 acres.
Pre-resource Assessment: O/M, B, S; LFP, HPP.
Forestry Management
Category/Practices: Personal use firewood - scarify.
Enhancement Action: Scarify, retain seed trees.
Projected Results: Regeneration of birch seedlings.
Post-project Results: Report on regeneration and plant competition will be completed in June following project completion.

Access: Road already in existence.
Notes: Area already cut. Scarification not performed.
4. Project Reference Code: MR-86-3.
Location: N1/2N1/2, Sec. 1, T18N, R1E, S.M., S1/2S1/2
Sec. 36, T19N, R1E, S.M.
Acreage: 320 acres.
Pre-resource Assessment: O/M B, S; LFP, HPP.
Forestry Management
Category/Practices: Chain down; scarify - retain seed trees.
Enhancement Action: Scarify adjacent to buffer.
Projected Results: Regeneration of birch seedlings.
Post-project Results: Report on regeneration and plant competition will be completed in June following project completion.

Access: Existing roads.
Notes: Chaining complete. Scarification needs to be performed.
5. Project Reference Code: MR-86-4.
Location: SW1/4, Sec. 5, T18N, R2E, S.M.
Acreage: 160 acres.
Pre-resource Assessment: O/M B, A, S; LFP, HPP.
Forestry Management
Category/Practices: Commercial seed tree cut - retain birch.
Enhancement Action: Scarify pre-birch seed fall.
Projected Results: Regeneration of aspen/birch seedlings.
Post-project Results: Report on regeneration and plant competition will be completed in June following project completion.

Access: Existing road.
Note: Already sold contract.

PROJECT YEAR 1986 (continued)

6. Project Reference Code: SC-1002M (Tsadaka Canyon #2).
 Location: NW1/4, Sec. 34, T19N, R2E, S.M.
 Acreage: 160 acres.
 Pre-resource Assessment: O/M B, C, A; LFP, HPP.
 Forestry Management
 Category/Practices: Commercial seed tree cut - retain birch.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings; birch has a high moose forage production potential.
 Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1987.
 Access: Upgrade of existing road.
7. Project Reference Code: SC-1190M (MacDonald Fuelwood #1).
 Location: N1/2, Sec. 29, T19N, R2E, S.M.
 Acreage: 320 acres.
 Pre-resource Assessment: O/M B, S; LFP, HPP.
 Forestry Management
 Category/Practices: Commercial seed tree cut - retain birch.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings; birch has a high moose forage production potential.
 Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1987.
 Access: Winter road via Murphy Road.
8. Project Reference Code: SC-1191M (MacDonald Fuelwood #2).
 Location: S1/2SW1/4, Sec. 20, NW1/4 Sec. 29, T19N, R2E, S.M.
 Acreage: 240 acres.
 Pre-resource Assessment: O/M B, S; LFP, HPP.
 Forestry Management
 Category/Practices: Commercial seed tree cut - retain birch.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings; birch has a high moose forage production potential.
 Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1987.
 Access: Winter road via Murphy Road.

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PROJECT YEAR 1986 (continued)

9. Project Reference Code: SC-1189M (Soapstone #4B).
Location: N1/2SE1/4, SW1/4SE1/4, S1/2NE1/4, Sec. 5, T18N, R2E, S.M.
Acreage: 200 acres.
Pre-resource Assessment: O/M A, S, B; LFP, HPP.
Forestry Management
Category/Practices: Commercial seed tree cut - retain birch.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of birch seedlings; birch has a high moose forage production potential.
Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1987.
Access: MEA Powerline R/W.
Note: This is a re-offer of an old sale.
10. Project Reference Code: SC-919M (Tsadaka Canyon #1)
Location: NE1/4, Sec. 34, T19N, R2E, S.M.
Acreage: 160 acres.
Pre-resource Assessment: Mature spruce, cottonwood and birch.
Forestry Management
Category/Practices: Commercial seed tree cuts.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of aspen and birch seedlings.
Post-project Results: Report on regeneration will be completed in June following project completion.
11. Project Reference Code: SC-987M (Soapstone Fuelwood #5)
Location: N1/2, Sec. 6, W1/2NW1/4, Sec. 5, T18N, R2E, S.M.
Acreage: 400 acres.
Pre-resource Assessment: Mature birch.
Forestry Management
Category/Practices: Commercial seed tree cuts.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of birch seedlings.
Post-project Results: Report on vegetation regeneration will be completed in June following project completion.
12. Project Reference Code: SC-989M (Soapstone Fuelwood #6)
Location: N1/2, SE1/4, Sec. 4, T18N, R2E, S.M.
Acreage: 80 acres.
Pre-resource Assessment: Mature birch.
Forestry Management
Category/Practices: Commercial seed tree cuts.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of birch seedlings.
Post-project Results: Report on vegetation regeneration will be completed in June following project completion.

PROJECT YEAR 1986 (continued)

13. Project Reference Code: SC-998M (Soapstone Fuelwood #7)
 Location: SE1/4, Sec. 31, T19N, R2E, S.M.
 Acreage: 160 acres.
 Pre-resource Assessment: Mature birch.
 Forestry Management
 Category/Practices: Commercial seed tree cuts.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings.
 Post-project Results: Report on vegetation regeneration will be completed in June following project completion.

PROJECT YEAR 1987

1. Project Reference Code: MR-87-1 (Buffalo Mine).
 Location: SE1/4, Sec. 28, T19N, R2E, S.M.
 Acreage: 160 acres.
 Pre-resource Assessment: O/M A, B; LFP, HPP.
 Forestry Management
 Category/Practices: Personal use firewood; seed tree cut - retain birch.
 Enhancement Action: Scarify, pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings.
 Post-project Results: Report on regeneration and plant competition will be completed in June following project completion.
 Trail Construction: 1 mile.
 Access: Existing roads.
 Notes: Harvest area will be east of Moose Creek. Area has high potential for heritage values.
2. Project Reference Code: MR-87-2 (Baxter Mine).
 Location: NE1/4, Sec. 27, T19N, R2E, S.M.
 Acreage: 160 acres.
 Pre-resource Assessment: O/M B, S; LFP, HPP.
 Forestry Management
 Category/Practices: Personal use firewood; seed tree cut - retain birch.
 Enhancement Action: Scarify, pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings.
 Post-project Results: Report on regeneration and plant competition will be completed in June following project completion.
 Access: Existing road + .5 mile new constructin (temporary).
 Notes: On existing coal lease area. High heritage potential.

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PROJECT YEAR 1987 (continued)

3. Project Reference Code: MR-87-3 (Western Subunit Pilot Project).
Location: Sec. 27, T19N, R2E, S.M.
Acreage: 640 acres.
Pre-resource Assessment: Mature aspen/birch stands; LFP, HPP.
Forestry Management
Category/Practices: Checkerboard hinge cuts and clearcuts for personal use.
Enhancement Action: Stump and root sprouts.
Projected Results: Regeneration of aspen stands.
Post-project Results: Establish 1/2 meter plots and determine number of seedlings. See case file. Conduct assessment in June of following year.
Access: 1.5 miles new construction (temporary).
Note: High heritage potential.
4. Project Reference Code: MR-87-4.
Location: E1/2NW1/4, Sec. 34, T19N, R2E, S.M.
Acreage: 80 acres.
Pre-resource Assessment: Scattered mature birch; LFP, HPP.
Forestry Management
Category/Practices: Scarification only.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of birch seedlings.
Post-project Results: See case file.
Access: Temporary roads already in.
Note: Existing sale (cut area).
5. Project Reference Code: MR-87-7 (Porcupine Ridge).
Location: NE1/4, Sec. 30, T19N, R2E, S.M.
Acreage: 160 acres.
Pre-resource Assessment: O/M B, S; LFP, HPP.
Forestry Management
Category/Practices: Commercial seed tree cut - retain birch.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of birch seedlings.
Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1988.
Access: .75 mile construction for winter access only.
6. Project Reference Code: MR-B-00-87 (proposed burn project).
Location: Sec. 11, 12, 1, T19N, R2E, S.M.
7. Project Reference Code: MR-B-01-87 (proposed burn project).
Location: Sec. 16, 17, 18, T19N, R2E, S.M.
Note: In scenic area.

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PROJECT YEAR 1989

1. Project Reference Code: MR-89-1.
Location: SE1/4, Sec. 4, T18N, R2E, S.M.
Acreage: 160 acres.
Pre-resource Assessment: Mature birch, aspen, spruce; LFP, HPP.
Forestry Management
Category/Practices: Personal use, seed tree cut - retain birch and aspen.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of birch and aspen.
Post-project Results: See case file.
Access: 1 mile new construction of temporary road.

2. Project Reference Code: MR-89-5.
Location: SW1/4, Sec. 24, T19N, R1E, S.M.
Acreage: 160 acres.
Pre-resource Assessment: O/M B, S; LFP, HPP.
Forestry Management
Category/Practices: Commercial seed tree cut - retain birch.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of birch seedlings.
Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1990.
Access: 2 miles construction of winter only roads.
Note: In high valued scenic area.

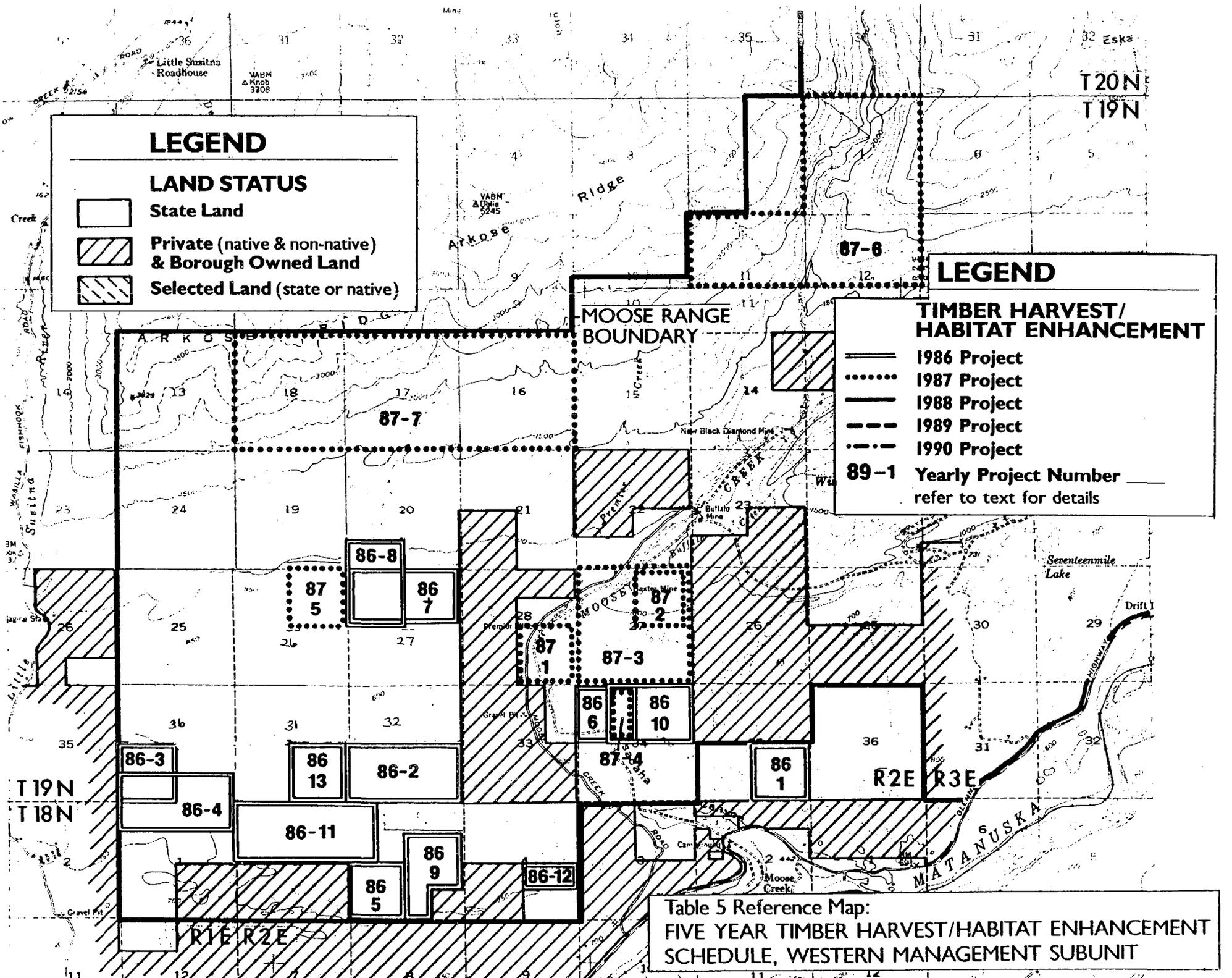
3. Project Reference Code: MR-89-6 (Swamp Dog).
Location: SE1/4, Sec. 25, T19N, R1E, S.M.
Acreage: 160 acres.
Pre-resource Assessment: O/M B, S; LFP, HPP.
Forestry Management
Category/Practices: Commercial or personal use seed tree cut - retain birch.
Enhancement Action: Soil scarification pre-birch seed fall.
Projected Results: Regeneration of birch seedlings.
Post-project Results: Report on vegetation regeneration and plant competition will be completed in June, 1990.
Access: 2.5 miles construction of winter-only roads.

PROJECT YEAR 1990

1. Project Reference Code: MR-90-3 (Murphy Point).
 Location: SE1/4, Sec. 29, T19N, R2E, S.M.
 Acreage: 160 acres.
 Pre-resource Assessment: O/M B, white spruce; LFP, HPP.
 Forestry Management
 Category/Practices: Commercial seed tree cut - retain birch.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings.
 Post-project Results: See case file.
 Access: 1 mile construction of temporary road.
 Note: Some of area is already cut.

2. Project Reference Code: MR-90-5 (Freckles Patch).
 Location: SE1/4, Sec. 30, T19N, R2E, S.M.
 Acreage: 160 acres.
 Pre-resource Assessment: O/M B, white spruce; LFP, HPP.
 Forestry Management
 Category/Practices: Commercial or personal use seed tree cut -
 retain birch.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings.
 Post-project Results: See case file.
 Access: Existing roads.

3. Project Reference Code: MR-90-5 (Little Su Get-a-Way).
 Location: NW1/4, Sec. 25, T19N, R1E, S.M.
 Acreage: 160 acres.
 Pre-resource Assessment: O/M B, white spruce; LFP, HPP.
 Forestry Management
 Category/Practices: Commercial seed tree cut - retain birch.
 Enhancement Action: Soil scarification pre-birch seed fall.
 Projected Results: Regeneration of birch seedlings.
 Post-project Results: See case file.
 Access: 1.25 miles construction of temporary trails.



LEGEND

LAND STATUS

- State Land
- Private (native & non-native) & Borough Owned Land
- Selected Land (state or native)

LEGEND

TIMBER HARVEST/HABITAT ENHANCEMENT

- 1986 Project
- 1987 Project
- 1988 Project
- 1989 Project
- 1990 Project
- 89-1** Yearly Project Number refer to text for details

**Table 5 Reference Map:
FIVE YEAR TIMBER HARVEST/HABITAT ENHANCEMENT
SCHEDULE, WESTERN MANAGEMENT SUBUNIT**

Table 5 Reference Map, continued

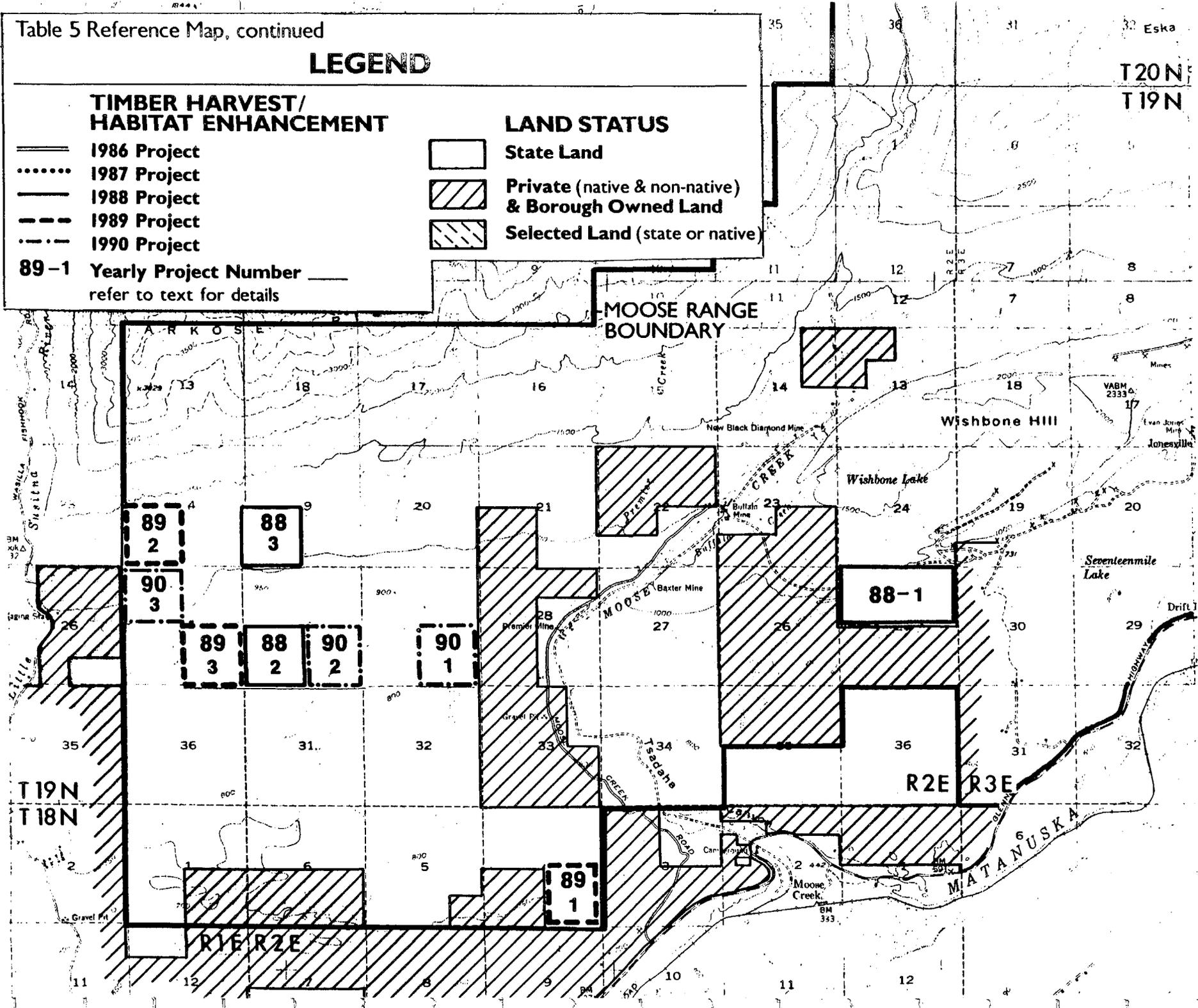
LEGEND

TIMBER HARVEST/ HABITAT ENHANCEMENT

LAND STATUS

-  1986 Project
-  1987 Project
-  1988 Project
-  1989 Project
-  1990 Project
- 89-1** Yearly Project Number
refer to text for details

-  State Land
-  Private (native & non-native)
& Borough Owned Land
-  Selected Land (state or native)



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2. SUBSURFACE

The Western Management Subunit is open to locatable and leasable mineral development. There is no known coal potential in upper Moose Creek.

a. Coal Lease Location

- (1) Existing Leases. The state will follow existing procedures to allow for development of high valued coal resources on lands now leased for coal development near Wishbone Hill. Map 5b on page 35 shows the location of the existing leases.
- (2) Possible Complementary Leases. Small tracts that complement and generally lie adjacent to existing leases may be leased in order to consolidate holdings and maximize utilization of the resources. (See Map 5b on page 35).
- (3) Agency/Lessee Cooperation. The DOM will work actively with the lessee on the existing Wishbone Hill coal leases. DNR and ADF&G will review the mining plans of operation once the lessee submits them to the state. State agencies will follow the intent of this plan and follow established ASCMCRA procedures in approving the plans for operation. State agencies will make recommendations to minimize impacts on fish and wildlife habitat and populations.
- (4) Wishbone Lake. Wishbone Lake will be protected and/or replaced if destroyed as a result of mining.

b. Post-Mining Land Use. Post-mining land use is designated as wildlife habitat for the Wishbone Hill area coal mined lands. Reclamation must be directed to a habitat type and density which is primarily beneficial to moose consistent with ASCMCRA. The DOM will monitor coal mining and reclamation activities at Wishbone Hill according to the ASCMCRA. This will include water quality in Moose Creek, the rainbow fisheries in Wishbone Lake, groundwater and air quality of the subunit.

c. Post-Mining Roads. The location and development of mining roads will receive interagency review during the review of authorization for mining. The determination of post-mining road use will be made at that time. Roads which are designated to be used by the public will remain open after mining operations have ceased or until an agency management decision is developed to do otherwise.

- d. Potential Locations for Coal Mine Mouth Plants. As of 6/19/86, the Wishbone Hill area mining lessees have indicated four potential sites for locating a coal mine mouth plant near Sutton. The potential locations and possible conflicts with the sites are as follows:
- (1) SW1/4, T19N, R2E, Sec. 35. Adjacent to the Moose Range, close to water supply, major transportation and power corridor. Possible conflict with proposed realignment of the Glenn Highway. Coordination with timber harvest plans necessary. Soil data needed for engineering.
 - (2) N1/2, NE1/4, T19N, R2E, Sec. 34. Possible conflicts warrant coordination with timber harvest/habitat enhancement efforts. Soils data needed for engineering.
 - (3) S1/2, T19N, R2E, Sec. 26. Private property; requires purchase.
 - (4) SE1/4, S1/2SW1/4, NW1/4SW1/4, T19N, R2E, Sec. 23. Private property requires negotiation with Cook Inlet Region Inc. (see Map 5a on page 33).

3. RECREATION

- a. Hunting and Trapping. This management subunit is a major big and small game harvest and trapping area. These recreational activities will continue to be allowed and will be regulated by the Game Board.
- b. State Picnicking and Camping Roadside Facilities
 - (1) Moose Creek State Recreation Site. The enabling legislation that established the Moose Range requires the state to provide for roadside recreation sites, including picnicking and camping areas. To meet this need DOPOR will pursue funding and staffing to expand the existing Moose Creek State Recreation Site (on lands outside of the Range) to provide for overnight camping. The preferred location for this expansion is adjacent to the Buffalo Mine Road at NE1/4, Sec. 3, T18N, R2E, S.M.

Since this is mental health land, campground expansion at this site is dependent upon the final management scheme for mental health lands approved by a court of competent jurisdiction. The May 15, 1986, Department Order 121 prohibits Interagency Land Management Assignments (ILMAs) at this time on mental health lands which precludes use of this land for a public campground. If a public campground at this location is not an option, the Division of Parks should consider a privately run campground under lease

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(which would produce revenue and, therefore, might be approved by the Mental Health Commission); or the investigation of privately owned land in the vicinity for purchase if any is suitable; or encouraging private parties to provide a campground on private land; a land exchange; or purchase of these lands.

(2) Interpretive Displays. When expanded, the Moose Creek site will include interpretive displays to inform the public about the purposes of the Moose Range, existing outdoor recreational opportunities, natural, cultural and historic values, and unique geologic features. The displays can be used to educate the public about natural resource values, multiple use management of the natural resources and how resource use may improve wildlife productivity of some sites. ADF&G will co-author the interpretive signs regarding the Moose Range.

c. Matanuska-Susitna Borough Facilities. The state recommends that the Matanuska-Susitna borough retain title to property along Fishhook Road (NE1/4NW1/4, Sec. 26, T19N, R1E, S.M.). The state also recommends the parcel to be dedicated for recreational classification. If access to the borough property is feasible, the property may serve as public access to the Arkose Bench area after 1991.

The state recommends that the Matanuska-Susitna Borough dedicate Borough lands around Coyote Lake (NE1/4 NW1/4, Sec. 15, T19N, R3E, S.M.) for recreational classification. The Sutton Community can apply to the borough and DOPOR for capital improvement grant money to obtain funding for development of recreational improvements at Coyote Lake.

d. Fossil Hunting. Fossil hunting is a dispersed outdoor recreational activity that is popular in the Western Management Subunit. The subunit will be managed to allow public access to Moose Creek and the Wishbone Hill areas for the purpose of collecting fossils. The activity will be restricted by DNR when the public's safety is endangered or when public activity interferes unreasonably with coal mining operations. Permits and leases for commercial use of the fossils may be prohibited when DOPOR evaluates the heritage resource value, determines whether or not the fossil types warrant protection and identifies the appropriate method for protection.

e. Scenic Values. Scenic views of Arkose Ridge, Wishbone Hill, or Granite Peak from the Glenn Highway should be protected (see Map 10 on page 199). Habitat enhancement may be allowed in the areas viewed from the Glenn Highway to maintain wildlife habitat. Review of enhancement plans by DNR and ADF&G will occur and habitat enhancement/timber harvest activities should be designed to minimize their adverse effect on the view.

4. HERITAGE RESOURCES

- a. Known Sites. Four known heritage resource sites have been recorded in the Western Management Subunit. These sites will be managed according to the guidelines in Chapter Three on page 93. (See Map 7 on page 43).
- b. Undiscovered Sites
 - (1) Resource Extent. The Western Management Subunit has been used historically by native populations primarily traveling along the Matanuska River. Coal mining near Jonesville/Sutton subsequently spurred the development of the non-native communities. With the extent of past historic use (both native and that related to mining) it is likely that additional cultural and historic resources will be located. Areas in the Western Management Subunit designated by DOPOR as known and high potential areas for containing heritage resources will be surveyed for heritage values as funding and staffing allow (see Map 7, page 43).
 - (2) Public Education. Public knowledge of cultural and historic values is necessary to help protect the heritage resources. Therefore, the state encourages the community of Sutton to continue to promote public education on cultural values in the area through the local museum and historical society functions. The state also encourages the Alpine Historical Society to continue interpreting the mining era to the public and developing the local historical museum. If possible, the state should donate old mining equipment found on state land to the local historical museum.

5. BUFFERS

- a. Lakeshores and Stream Corridors
 - (1) Wasilla Creek. There is a 200 foot buffer on each side of Wasilla Creek above ordinary high water. Any timber harvest or habitat enhancement activity altering the habitat/vegetation within the buffer shall require concurrence by DNR and ADF&G. See Chapter Three guidelines on stream corridors and lakeshores for other allowed activities on pages 99 and 100.
 - (2) Other Streams and Lakes. Habitat enhancement efforts in riparian zones along Moose and Eska Creeks, Wishbone and Seventeen Mile Lakes may take place according to the Chapter Three guidelines on buffers (see Lakeshores and Stream Corridors section, pages 97-100).

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- b. Wetland Buffers. Large wetlands, in excess of 700 acres, exist in the southwestern end of this subunit. A buffer will be retained around them as described in Chapter Three (see pages 101-102).

6. INSTREAM FLOW RESERVATIONS

ADF&G will establish instream flow needs on Wasilla Creek, Moose Creek and Eska Creek to maintain fish and wildlife resources, riparian habitat and associated recreational opportunities as funding and staff are available. The DLWM will work closely with ADF&G to establish the instream flow reservations.

7. GRAZING

a. Existing Leases

- (1) Arkose Ridge Permit. A permittee (ADL #219994) has obtained a five-year permit for grazing on Sec. 15, S1/2N1/2, S1/2, Sec. 16 and S1/2S1/2, Sec. 17, 19, and 20, T19N, R2E, S.M. below Arkose Ridge. Approximately 2560 acres of this lease have high grazing potential. DLWM will, upon expiration of the permit in 1990, review the permit for reissuance as a permit or lease according to grazing guidelines in Chapter Three. Upon expiration or termination of the grazing permit, the state may, upon application, issue a permit or lease to another applicant. This permit area should be a primary candidate for developing a common use grazing area.
- (2) Moose Creek Lease. An existing 25-year lease (ADL #40743) covers approximately 4,800 acres of high-to-moderate grazing potential along Moose Creek. This lease will be continued according to its present lease requirements for the term of the lease. Should the lease be terminated for any reason, a lease or permit may be issued to other applicants for grazing according to Chapter Three guidelines.

b. Future Leases

- (1) Areas of Approved Use. Grazing is an approved use on the lands covered by existing grazing leases and permits, on Arkose Bench, below Knob Hill, and in the southwest corner of this subunit (see Map 10 on page 199). Grazing may occur in other parts of the subunit if it will benefit or not interfere with wildlife habitat, if it is consistent with the grazing guidelines in Chapter Three on pages 103-117, and if ADF&G approves.

- (2) Research Sites. The proposed grazing site in the southwest corner and coal-development-generated, habitat-enhancement sites are locations that should be used as research sites to determine grazing impacts on wildlife enhancement efforts. Initiating these actions requires a request and approval from ADF&G and DNR.
- c. Research Efforts. The DOF, ADF&G, Soil Conservation Service, DLWM and the University of Alaska will pursue research efforts in the southwest end of the Western Management Subunit and on existing grazing leases and permits. These research efforts are needed to determine moose-livestock-vegetation interactions, and to determine the potential for future grazing opportunities.

8. ACCESS

- a. Public Lands. Public access into the Western Management Subunit is necessary for perpetuating multiple use. The state will maintain public rights-of-way, easements and/or greenbelts for public access to Wishbone Lake, Seventeen Mile Lake, Moose and Eska Creeks, Tsadaka Canyon along Moose Creek; and to public lands along the Fishhook, Soapstone, Buffalo Mine and Murphy Roads. The state recommends that the Matanuska-Susitna Borough also adopt a policy to provide public access to public lands within the Range through the subdivision platting process, acquisition, tax incentives, etc.
- b. Public Use of Existing Access
- (1) Areas of Open Access. Public sections of the Buffalo Mine Road, mining spur roads to Wishbone Lake and Seventeen Mile Lake, and the Jonesville Mine Road and mining spur roads to the east will remain open to motorized and non-motorized uses.
- (2) Areas of Unimproved, Closed or Revegetated Roads. To help manage potential human conflicts with habitat enhancement research efforts, the DOF timber harvest roads in the southwest corner of the Western Management Subunit will not be upgraded, improved or posted with recreational signs. At the request of ADF&G, some roads may be closed or revegetated as part of the habitat maintenance or enhancement efforts.
- (3) Areas With Active Assertion. The public has been using the mining roads that connect Buffalo Mine Road, Seventeen Mile Lake and the Jonesville Road since they were constructed. The state will continue researching the validity of a public right-of-way on these roads and follow Chapter Three guidelines on pages 120-121 for making a right-of-way assertion wherever necessary and possible. This includes access to Wishbone Lake off the mining roads system.

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- c. Existing Grazing Leases Access. Public access is guaranteed through existing permit and grazing lease areas. To assist the public in maintaining access to dispersed outdoor recreational opportunities in upper Moose Creek and the Arkose Ridge area and to aid the grazing lessee in reducing recreational related human-livestock conflicts, the DLWM, DOPOR and ADF&G will work with existing grazing lessees to determine and confirm the location of public access routes.
- d. New Access
 - (1) Public input indicates upper Moose Creek drainage should be left undisturbed. No new trails or roads may be built beyond or north of the natural knob at Sec. 1, T19N, R2E, S.M., for recreation, timber management or wildlife enhancement activities.
 - (2) ADF&G will monitor winter moose habitat utilization and fall moose harvest on Arkose Ridge bench to determine if use of a proposed trail along the Arkose Ridge bench would adversely affect moose populations.
 - (3) Developed public access to the Arkose Bench areas from the Buffalo Mine and Murphy roads will not be developed at this time but may be reconsidered after 1991. Similarly, access from Fishhook Road, through Mat-Su Borough land, will not be developed in the near future. DNR, ADF&G, and borough will work cooperatively to develop a trail proposal if the public need for a trail arises, and the proposal is consistent with the intent of the management plan.

9. MATERIALS

Potential Sources

- (1) Five potential sources for material are located in the Western Management Subunit. These five sources are shown on Map 2 on page 13. They include potential sites at Mile 1.3 of the Buffalo Mine Road, the upper end of Murphy Road, a site between Elks Lake and Premier Mine Road, a site on borough land off an unnamed road that leaves the Glenn Highway at Mile Post 59.9 and a site beyond the end of the Jonesville Road. (See Chapter Three, Materials guidelines, on page 129.)
- (2) The Division of Land and Water Management, Matanuska-Susitna Borough and ADF&G will work cooperatively to do the necessary field analysis prior to development of these sites. Upon completed use of these sites, they will be rehabilitated for wildlife habitat as specified by ADF&G.

10. UNAUTHORIZED USE

DLWM will pursue unauthorized uses of state land according to existing procedures. There appear to be three unauthorized parties living on state land in Sutton at this time, at the following locations:

- (1) SW1/4 SE1/4, Sec. 16, T19, R3E, SM
- (2) SE1/4 SE1/4, Sec. 16, T19, R3E, SM
- (3) NE1/4 SE1/4, Sec. 16, T19, R3E, SM

D. LAND USE DESIGNATIONS SUMMARY

SURFACE

Primary Uses and Classifications. Wildlife habitat, coal, forest.
Secondary Use. Grazing, public recreation, heritage resources.

SUBSURFACE

Locatable Minerals. Open.
Leasable Minerals. Available for leasing.

PROHIBITED SURFACE USE. Land disposals, remote cabins (private), new roads/trails into upper Moose Creek drainage for recreation, timber management, or wildlife enhancement activities beyond the natural knob.

MENTAL HEALTH ACREAGE. 9,600 acres patented, 1,920 acres tentatively approved.
