Chapter 2 : Areawide Goals and Management Guidelines

Introduction

The following chapter describes the areawide land management guidelines that have been developed to manage public lands in the Matanuska Valley Moose Range and JPUA. These management guidelines will supplement existing state policy and procedure manuals, state statutes, and state and federal regulations. This chapter will identify more specific management direction for the Moose Range and JPUA while implementing the statutory purposes of the enabling legislation of each. This chapter presents areawide goals, objectives, and management guidelines for major resources and activities. Chapter 3 contains unit-specific guidelines that apply to discreet management units of the Moose Range and JPUA.

Definitions

Goals

Goals are generally desired conditions that DNR strives to achieve through management actions.

Objectives

Objectives describe the comprehensive approach to achieve the identified goals for each major resource or use in the Moose Range and JPUA.

Management Guidelines

Management guidelines are intended to provide specific management direction for decisions DNR makes about the planning area. Guidelines range from giving general guidance for decision-making to identifying specific factors that need to be considered when making on-the-ground decisions. DNR will use the guidelines when adjudicating applications for the use of state lands within the planning area. In most cases, these guidelines can be implemented through the authorization of applications for proposed uses or through agency actions. In other cases, DNR may promulgate regulations to ensure that these guidelines can be implemented and are enforceable.

Overall Plan Goals

The plan provides for multiple uses of public land, as required by legislation, and the guidelines provide compatibility among these uses. In the long term the land within the Moose Range and JPUA will be used for as many uses as possible, without eliminating, or unreasonably limiting other resources.

The goals of the plan are:

1. To maintain, improve or enhance moose populations and habitat either through forestry practices that also provide for personal and commercial forest products harvesting, or direct habitat manipulation by fire or mechanized means.
2. To maintain, improve, or enhance other fish and wildlife populations.
3. To provide opportunities for coal mining and mineral development.
4. To improve and enhance moose populations through reclamation of coal mined lands to productive wildlife habitat.
5. To preserve opportunities for materials extraction.
6. To provide forest products and non-timber forest product opportunities to meet local needs, including for fuelwood and house logs, when complementary to wildlife habitat needs.
7. To reduce user conflicts.
8. To provide for dispersed outdoor recreational opportunities within the Moose Range and JPUA.

The Moose Range and Jonesville Public Use Area will be managed for multiple use. This requires a combined, cooperative effort by DNR and ADF&G.

Access

Background

On-the-ground access to public lands is a major factor in determining applicable management options. The Moose Range and JPUA are easily accessible from the Glenn Highway and other developed roads from the communities of Palmer, Sutton, and Chickaloon. Access to the Moose Range and JPUA is gained via several roads and trails (See Map 2 on page 2-5). Many of the access trails and roads being used by the public were constructed during coal exploration in the mid-1900s.

The roads and trails in Map 2 have been identified as access points to the Moose Range or JPUA. Any management actions regarding their legal status must be researched and verified.

Goals

1. Provide access to the Moose Range and JPUA to perpetuate public multiple use of the area, including fishing, grazing, forest management, hunting, trapping, mineral and coal entry and development, and public recreational uses.
2. Continue public access on trails in the Moose Range and JPUA.
3. Minimize disturbance or damage to wildlife populations and wildlife habitats that could occur because of increased public use of the Moose Range and JPUA.

Objectives

The public requires authorized access into the Moose Range and JPUA for outdoor recreation. Government agencies require authorized access into the Moose Range and JPUA for the purpose of maintaining, improving, and enhancing fish and wildlife populations, and perpetuating public multiple use of the area. The state should base access for resource development on existing road systems wherever possible, rather than develop additional roads until further analysis determines the need for additional road construction. Several roads and trails provide access into the Moose Range including

Fish Lake Road, Jonesville Mine Road, Wendt Road, Buffalo Mine Road, Permanente Road, Fish Lake Subdivision Road, and Chickaloon River Road. New access may be developed for timber harvest and/or habitat enhancement efforts.

For dispersed public recreation, projects that establish legal public access for motorized and non-motorized travelers and development of trailhead-parking facilities have the highest priority.

DNR will assert public right-of-way on legal public access routes and grant easements as appropriate. The state will strive to educate the public as to legal access, and clarify private and public lands to reduce trespass, as funding allows.

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PLANNING AREA: MATANUSKA VALLEY MOOSE RANGE & JONESVILLE PUBLIC USE AREA - ACCESS POINTS

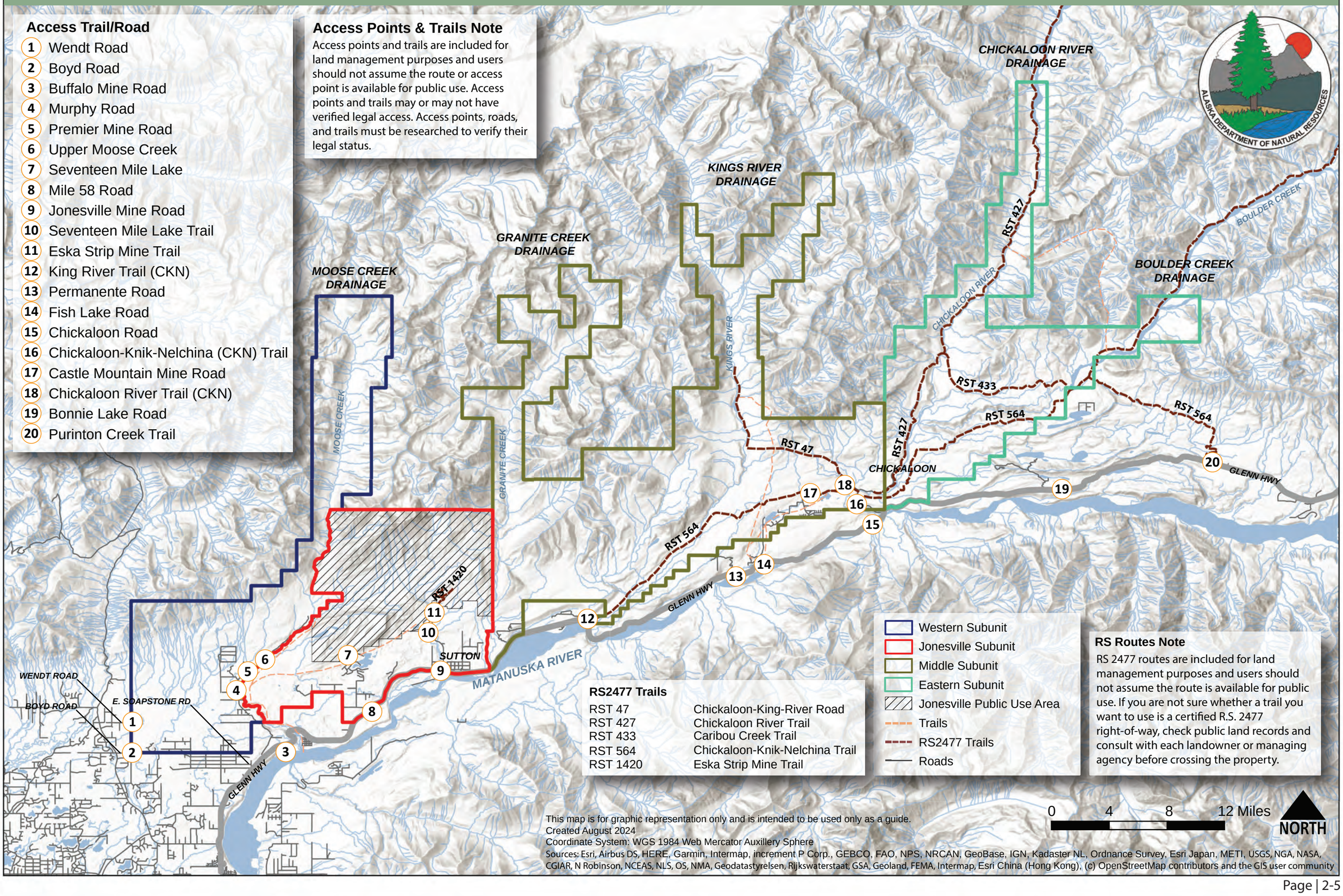
MAP 2

Access Trail/Road

1. Wendt Road
2. Boyd Road
3. Buffalo Mine Road
4. Murphy Road
5. Premier Mine Road
6. Upper Moose Creek
7. Seventeen Mile Lake
8. Mile 58 Road
9. Jonesville Mine Road
10. Seventeen Mile Lake Trail
11. Eska Strip Mine Trail
12. King River Trail (CKN)
13. Permanente Road
14. Fish Lake Road
15. Chickaloon Road
16. Chickaloon-Knik-Nelchina (CKN) Trail
17. Castle Mountain Mine Road
18. Chickaloon River Trail (CKN)
19. Bonnie Lake Road
20. Purinton Creek Trail

Access Points & Trails Note

Access points and trails are included for land management purposes and users should not assume the route or access point is available for public use. Access points and trails may or may not have verified legal access. Access points, roads, and trails must be researched to verify their legal status.



RS2477 Trails

RST 47	Chickaloon-King-River Road
RST 427	Chickaloon River Trail
RST 433	Caribou Creek Trail
RST 564	Chickaloon-Knik-Nelchina Trail
RST 1420	Eska Strip Mine Trail

- Western Subunit
- Jonesville Subunit
- Middle Subunit
- Eastern Subunit
- Jonesville Public Use Area
- Trails
- RS2477 Trails
- Roads

RS Routes Note

RS 2477 routes are included for land management purposes and users should not assume the route is available for public use. If you are not sure whether a trail you want to use is a certified R.S. 2477 right-of-way, check public land records and consult with each landowner or managing agency before crossing the property.

0 4 8 12 Miles

NORTH

This map is for graphic representation only and is intended to be used only as a guide.
Created August 2024
Coordinate System: WGS 1984 Web Mercator Auxillery Sphere
Sources: Esri, Airbus DS, HERE, Garmin, Intermap, increment P Corp., GEBCO, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, Esri China (Hong Kong), (c) OpenStreetMap contributors and the GIS user community

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Management Guidelines

1. Public Access Assertion

a. Continuing Assessment. Assessment of the public's ability to access roads and trails within the Moose Range and JPUA should continue as necessary.
b. Verification and Protection of Access. DNR should verify and protect legal public access on existing roads and trails throughout the Moose Range and JPUA as staffing and funding allows.

2. Access for Mining

a. Mining Access in Restricted Areas. Authorizations may be granted for development of mining access in any future proposed non-motorized areas. Access roads for mining will be kept to the minimum necessary to perform mineral exploration and production operations.
b. Interagency Review. DNR's Mining Section shall consult with ADF&G and DMLW SCRO to make recommendations for routing potential mining roads in a manner which will enhance or have minimum impact on wildlife, fisheries, and recreation values. A well-placed road, for example, could serve the mining operation while also providing motorized access for hunting and other recreational pursuits.
c. Public Access. Mining access roads should serve as public access except when:
    i. A determination is made by DNR in cooperation with ADF&G that public use would negatively impact wildlife populations.
    ii. Public access would create public safety or other management problems or adversely impact the mining operation.
d. Maintenance of Existing Legal Access. If mining operations need to use existing legal public access routes, alternative access shall be provided to the public by the lessee or permittee.
e. Future Closure. Where access roads are detrimental to wildlife or public recreation, they may be kept closed to the public and removed and rehabilitated when mineral production ends.
f. Stream Crossings. Authorizations from the United States Army Corps of Engineers (USACOE) and a Fish Habitat Permit from the ADF&G Habitat Section may be required.

3. Access for Habitat Enhancement

a. Upgrading Existing Roads and/or Trails. ADF&G or other agencies should use existing road and/or trail networks whenever possible.
b. New Access. ADF&G or other agencies shall consult with DNR DMLW on new access routes for habitat enhancement projects. New access should be sited, designed, and maintained to avoid or minimize impacts to fish, wildlife, and their habitats.
c. Level of Upgrading. Access roads and/or trails constructed in the Moose Range and JPUA for wildlife habitat enhancement projects should be built only to a level necessary for the intended use.
d. Determination of Public Access. Access roads or trails for habitat enhancement may be closed to public use as needed. The desired public recreational use of access roads intended for habitat enhancement should be determined prior to upgrades. Posting of trail signs or developing trailheads on roads or trails will be limited and mainly done where and when it is necessary to

direct public use away from enhancement efforts, or to direct the public to stay on public trails. DNR DMLW should consult with ADF&G or other agencies proposing habitat enhancement projects to determine if roads and/or trails created through habitat enhancement efforts should remain open to the public. The review may consider effects of the new access on wildlife, habitat enhancement efforts, availability of funding for maintenance, and the public desire to use the roads and/or trails for recreational purposes.

e. Protection of Existing Legal Access. If habitat enhancement projects need to use existing legal public access routes, and those routes are no longer open to public use during the project, alternative access shall be provided to the public.
f. Road Requirements. Access for wildlife habitat enhancement projects will:
    i. Utilize winter road access wherever possible.
    ii. As appropriate, roads may be located and designed to allow the public to collect firewood and to accommodate recreational use.
g. Road Buffers. Buffers of naturally occurring vegetation shall be maintained along roads such as the Glenn Highway, Permanente, Fish-Drill Lake, Buffalo Mine, Castle Mountain Mine and Chickaloon River Roads. Ideally, buffers should extend 100 feet from the outer edge of the right-of-way. Activities allowed in road buffers include the following:
    i. Selective tree cutting as approved by DNR.
    ii. Disease and insect control and prevention with pesticides as approved by DNR and State of Alaska Department of Environmental Conservation (DEC).
    iii. Roads, trails, and utility lines may cross the buffer.
    iv. Recreational trails may be located within the buffer.
    v. Fuels management to reduce wildfire risk.
    vi. Habitat enhancement activities.

4. Access for Timber Harvest Operations

a. Upgrading Existing Roads and/or Trails. DOF&FP should use existing road and/or trail networks for timber harvest whenever possible.
b. New Access. DOF&FP or other agencies shall consult with DNR DMLW on new access routes for timber harvest projects. New access should be sited, designed, and maintained to avoid or minimize impacts to fish, wildlife, and their habitats.
c. Level of Upgrading. Access roads and/or trails constructed in the Moose Range and JPUA for timber harvest operations should be built only to a level necessary for the intended use.
d. Determination of Public Access. Access roads or trails for timber harvest operations may be closed to public use as needed. The desired public recreational use of access roads intended for timber harvest should be determined prior to upgrades. Posting of trail signs or developing trailheads on roads or trails will be limited and mainly done where and when it is necessary to direct public use away from timber harvest efforts, or to direct the public to stay on public trails. DNR DMLW should consult with DOF&FP or other agencies proposing timber harvest projects to determine if roads and/or trails created through timber harvests should remain open to the public. The review may consider effects of the new access on wildlife, habitat enhancement

efforts, availability of funding for maintenance, and the public desire to use the roads and/or trails for recreational purposes.

e. Protection of Existing Legal Access. If timber harvest projects need to use existing legal public access routes, and those routes are no longer open to public use during the project, alternative access shall be provided to the public.
f. Road Requirements. Timber harvest roads or trails shall meet the requirements in the Forest Resources and Practices Act (FRPA). Additionally, access for timber harvest projects will:
    i. Utilize winter road access wherever possible.
    ii. As appropriate, roads will be located and designed to allow the public to collect firewood and to accommodate recreational use.
g. Road Buffers. To protect habitat, buffers of naturally occurring vegetation shall be maintained along roads such as the Glenn Highway, Permanente, Fish-Drill Lake, Buffalo Mine, Castle Mountain Mine and Chickaloon River Roads. Activities allowed in road buffers include the following:
    i. Selective tree cutting as approved by DNR.
    ii. Disease and insect control and prevention with pesticides as approved by DNR and State of Alaska Department of Environmental Conservation.
    iii. Roads, trails, and utility lines may cross the buffer.
    iv. Recreational trails may be located within the buffer.
    v. Fuels management to reduce wildfire risk.
    vi. Habitat enhancement activities.
h. Cutting Permits. Personal firewood cutting permits shall specify that no cutting is allowed within buffers.

5. Access for Recreation

New trails and roads to promote the enjoyment of the Moose Range and JPUA should be sited, designed, and maintained to avoid or minimize impacts to fish, wildlife, and their habitats.

6. Department of Transportation & Public Facilities Roads (DOT&PF)

Development Within DOT&PF Road Rights-of-Way. Any development within the DOT&PF road rights-of-way will require authorization from DOT&PF.

7. Protection of Fish and Wildlife Resources

Important wintering, calving, lambing, or mineral lick areas, fish and wildlife habitats in riparian areas, fish and wildlife movement corridors, and threatened or endangered species habitat should be avoided in siting of roads and/or trails unless no other feasible and prudent alternatives exist. Location of routes and timing of construction shall be determined in consultation with ADF&G.

8. Public Waters

DNR, ADF&G, and BLM should work cooperatively to ensure access to public lands and waters wherever possible.

9. Section Line Easements

Use of section lines for access routes within the range should be discouraged in favor of other routes based on topography, gradient and road standards. Use of section lines for access routes to the Moose Range and JPUA should be secondary to other routes. Section line easements may be used, however, if other routes are unavailable.

Commercial Recreation Use

Background

Active commercial recreational use has not yet occurred within the Moose Range and JPUA but should be anticipated in the future. Potential operators could provide a variety of recreational opportunities, including but not limited to hunting, fishing, biking, skiing, hiking, and wildlife viewing. Commercial operators could also provide services such as garbage collection, sanitation, shooting range operation, and overnight camping accommodations.

Goals

1. Authorize those commercial operations that are consistent with the purposes for which the Moose Range and JPUA were designated as stated in Chapter 1.

Objectives

Commercial recreation uses in the Moose Range or JPUA should be managed to promote public safety, increase on-site management of high-use areas, and provide additional opportunities for outdoor recreation activities. Commercial use may be considered if the activities are conducted in a manner that does not compromise wildlife or wildlife habitat. Additionally, commercial activities should not detract from the experience of others in the Moose Range and JPUA.

Management Guidelines

1. DNR may authorize commercial uses. Authorizations for commercial use are subject to the requirements of this management plan.
2. DNR should minimize impacts to public access where commercial uses are authorized.
3. Land use authorizations for permanent or temporary facilities for commercial use shall only be authorized in the Jonesville Management Subunit and are not authorized in the Western, Middle or Eastern Management Subunits. Facilities shall not be issued in locations where sensitive habitats or resources are present.
4. Commercial uses within the Moose Range and JPUA should be conducted in a manner that encourages public recreation and promotes respectful and lawful use of the land.
5. Entities with commercial use authorizations within the Moose Range and JPUA should be responsible in part for the upkeep and maintenance of the recreation amenities.
6. Entities who receive commercial use authorizations may charge appropriate fees for the services they provide.

Cultural and Heritage Resources

Background

Archaeological findings in the Moose Range and JPUA regions suggest that indigenous peoples have been living in these areas from at least 7,000 to 300 years ago during a period known as the Middle Holocene. In addition, historic trails and natural corridors in the area were likely used much earlier than their recorded dates for activities such as hunting, gathering, fishing, and trading. The trails traversing the Moose Range and JPUA have been used historically for many years, specifically, the Chickaloon River Trail, the Chickaloon-Knik-Nelchina Trail, the Boulder Creek Trail, the Old 98 Trail, and several old mining roads. Other resource types recorded within the Moose Range and JPUA include historic mine sites, grave sites, historic structures, and paleontological sites. At present, the Alaska Heritage Resource Survey database identifies 39 total recorded sites within the Moose Range. Of these, 31 are recorded as historic, 4 are prehistoric, and 2 are paleontological. Seven sites have been evaluated for their potential significance under the National Register of Historic Places Criteria (36 CFR 60.4) through the Alaska State Historic Preservation Office (AK SHPO). Of those 7 sites, the O'Neill House located at the Alpine Historical Park is the only property that has been determined to be eligible for the National Register. Several of the mine sites including the Buffalo Mine, the Jonesville Mine, the Eska Mine, the Premier Mine, and the Baxter Mine are reported as lacking historic integrity or destroyed due to cleanup activities. However, many sites have not received a recent condition assessment.

Only a very small portion of Alaska has been surveyed for cultural resources and therefore the possibility remains that previously unidentified resources are located within the Moose Range and JPUA. Surveys conducted just outside of the Moose Range area have identified a high quantity of new sites within the last decade. To date a complete survey of the Moose Range and JPUA has not yet been undertaken. There are other unrecorded resources in the area which are equally important.

The local Alpine Historical Society in Sutton manages the Alpine Historical Park, a facility that provides interpretive information about the heritage and cultures of the early settlers of the area including Ahtna-Dena (Athabascan) culture, coal mining, and the construction of the Glenn Highway.

Goals

1. Identify and protect significant cultural and heritage resources.
2. Provide educational and interpretive information regarding cultural and heritage resources.

Objectives

In accordance with the Alaska Historic Preservation Act of 1971 (AS 41.35.010) it is the policy of the state to preserve and protect the historic, prehistoric, and archeological resources of Alaska from loss, desecration, and destruction so that the scientific, historic, and cultural heritage embodied in these resources may pass undiminished to future generations. All proposed land uses and management activities within the Moose Range and JPUA should be reviewed for potential conflicts with cultural resource values.

Management Guidelines

1. Heritage Resource Survey

a. The Office of History and Archeology (OHA) shall be contacted during the initial planning phase of any project that involves a ground-disturbing activity to determine the appropriate course of action. If a cultural resource survey is required, the survey shall be completed by qualified DNR personnel and/or private cultural resource contractors.

b. Heritage Resources Identification. Identify and determine the significance of all heritage resources on state land through heritage resource surveys or inventories. These should be conducted by the OHA, contingent on funding, in areas this agency determines to have a high potential to contain important heritage sites and for which there is insufficient information to identify and protect these sites. This effort can be supplemented through:

   i. Research on heritage resources on state land by qualified individuals and organizations.

   ii. Cooperative efforts for planned surveys and inventories between federal, state, local, and/or Native groups.

2. Heritage Resource Protection

Significant heritage resources within the Moose Range and JPUA shall be protected through the review of proposed projects by OHA as part of the process. If OHA determines that there may be an adverse effect on heritage resources, OHA shall provide recommendations to minimize these effects if required by Section 106 of the National Historic Preservation Act.

3. Interpretation

Cultural and historical values may be interpreted to the public through signs, displays, rehabilitation, and other methods where appropriate and as funding is available.

4. Recreation Facilities Adjacent to Cultural and Heritage Resources

Recreational facilities that might make heritage sites more susceptible to damage and disturbance because of increased public use shall not be located adjacent to the heritage sites without mitigating measures. OHA should be consulted on all proposed projects for cultural and heritage site location information.

5. Reporting of Inadvertent Discoveries

The Alaska Heritage Resources Survey (AHRS) is an inventory of all reported historic and prehistoric sites within the State of Alaska and is maintained by the OHA. Should inadvertent discoveries of previously unknown cultural resources occur within the Moose Range and JPUA, OHA shall be notified to evaluate whether the resources should be preserved in the public interest (as specified at Section 41.35.070[d]). The data received should be provided to the AHRS. The public is also encouraged to report cultural resources they have encountered to help the state better manage these resources.

6. Undiscovered Sites

The planning area has been used historically by Alaska Native people. With the extent of past cultural use, it is likely that additional cultural resources may be located. Areas in the Moose Range and JPUA designated by SHPO as known and high potential areas for containing heritage resources should be surveyed for heritage values as funding and staffing allow.

Fish and Wildlife Habitat and Harvest

Background

Fish & Wildlife Habitat

The Moose Range and JPUA supports a variety and abundance of fish and wildlife. Approximately 134 species of birds, 14 species of fish and 28 species of mammals are inhabitants or migrants in the Moose Range and JPUA. The diversity and abundance of fish and wildlife reflect the variety and productivity of available habitats that provide food, cover, water, and reproductive areas for these species. The Moose Range and JPUA habitats include river floodplains, riparian areas, deciduous, coniferous and mixed forests and woodlands, shrublands, grasslands, forb communities, muskegs, rivers, streams, lakes, wetlands and a variety of alpine and tundra plant communities.

Moose, the most abundant large ungulate (hoofed) species found within the Moose Range and JPUA, are year-round residents; their general distribution reaches about 4000 ft. The highest moose densities occur where habitat disturbance resulting from landslides, forest fires, clearing, flooding or timber cutting has created paper birch, willow, and aspen vegetation in an early seral growth stage. Disturbed vegetative habitats produce larger volumes of palatable moose forage, which in turn result in greater seasonal growth and better physical condition of moose.

There is a general distribution of brown and black bear throughout the area, with high brown and black bear occurrences in the eastern third of the Moose Range, some brown bear occurrences in upper drainages and some black bear occurrences in the southcentral section of the Moose Range. The Moose Range supports a general distribution of Dall sheep, with a known important lambing area on Puddingstone Hill. Wolves are known to be in the middle and upper reaches of some drainages.

Beginning in the early 1990s, ruffed grouse were translocated to Southcentral Alaska from populations in Interior Alaska. One of the release locations was within the Moose Range and JPUA. In 1992, ADF&G began spring breeding surveys within the Moose Range and JPUA and the population has continued to grow and expand to now include all of the Moose Range and JPUA as well as much of the Matanuska-Susitna valley. Spruce grouse and snowshoe hare are also highly abundant and popular small game species within the Moose Range and JPUA.

Other wildlife species which inhabit the Moose Range and JPUA include wolverine, mountain goat, caribou, coyote, land otter, fox, marten, beaver, mink, weasel, lynx, hare, red squirrel, porcupine, three species of ptarmigan and spruce grouse. In addition, several important raptors such as the peregrine falcon, gyrfalcon, and bald and golden eagle nest, hunt and/or migrate through the area. Both falcons

and eagles are federally protected under the Migratory Bird Treaty and eagles are covered additionally by the Bald and Golden Eagle Protection Act, which apply within the Moose Range and JPUA.

As of 2022 there were three known Species of Greatest Conservation Need (SGCN) as identified in the State Wildlife Action Plan within the Moose Range and JPUA including the rusty blackbird (Euphagus carolinus), the olive-sided flycatcher (Contopus cooperi), and the little brown bat (Myotis lucifugus). The Olive-sided Flycatcher was identified during the North American Breeding Bird Survey, located in the SW corner of the Moose Range, making this area an important habitat for the species.

Migrant and resident fish found within the Moose Range and JPUA include Chinook, coho, chum, pink and sockeye salmon, as well as rainbow trout, Dolly Varden, Arctic grayling, burbot, three-spine stickleback, nine-spine stickleback, and the longnose sucker. The important sport fishing species include coho, sockeye and chum salmon, rainbow trout, Dolly Varden, and Arctic grayling.

Fish & Wildlife Harvest

The Moose Range and JPUA are readily accessible from the Glenn Highway, spur roads, and a number of trails. Because of relatively good access, high moose densities, and close proximity to Anchorage and Palmer/Wasilla, the Moose Range and JPUA are very popular for moose hunting. An analysis of returned hunter harvest tickets indicates that during the 2021 general harvest moose season in Unit 14A, 418 hunters spent 2,158 user-days to harvest 41 moose from the Moose Range and JPUA. Sixty-five percent of the general season hunters were from the local area, 35% from Anchorage, and another 5% from other areas. In addition to the general season bull harvest, there were 150 antlerless moose draw permits issued for the area for the fall season; 126 hunters took 53 antlerless moose. There are also two late season antlerless draw permits available in which all of ADF&G Game Management Unit 14A is open for hunting. For these two permits combined, 15 permittees reported hunting in the area, and they took an additional eight antlerless moose. This illustrates the high demand and importance of this land for providing public hunting opportunities near these population centers.

Abundant grouse and hare populations within the Moose Range and JPUA draw considerable hunter densities throughout the year through numerous public access points. Between 2001 and 2013, ADF&G began deliberate annual habitat manipulation efforts for the direct benefit of ruffed grouse and secondarily moose, snowshoe hare, and other early successional species. These projects are just now beginning to yield the planned benefits. The Moose Range and JPUA continue to grow in popularity and accessibility for grouse and hare hunters.

Sport fishing for all species, except Chinook (king) salmon, is permitted in the Range, and the fish populations support considerable recreational use, particularly in stocked lakes.

Although some sport fishing for resident species such as Dolly Varden occurs on streams within the confines of the Moose Range and JPUA, most of the sport fishing effort occurs just outside of the Moose Range and JPUA boundary near each stream's confluence with the Matanuska River. Year-round sport fishing for stocked fish occurs on Wishbone, Seventeen Mile, Slipper, Coyote, and Ruby lakes. Fish Lake supports year-round fishing of a native population of rainbow trout.

The use of the Moose Range and JPUA has increased as the human population has grown and access to adjoining private lands has been restricted, whether the use is by hunters, trappers, wildlife viewers, firewood cutters, anglers, snowmachiners, off-road vehicle users, and/or hikers. In some areas use has become problematic and certain uses should be restricted to protect sensitive habitats for fish and wildlife resources. Within the Moose Range and JPUA, such habitat includes moose wintering range, moose breeding areas, sensitive alpine habitats, Dall sheep lambing areas, riparian lake and stream habitats, stream banks, salmon spawning and rearing habitat (such as upper Wasilla Creek wetland complex) and waterfowl nesting areas.

Goals

1. Sustain and enhance moose, ruffed grouse, and other wildlife habitats and populations, while enabling public uses like hunting, trapping, fishing, wildlife viewing, and recreation.
2. Habitat enhancement methods should protect environmental values wherever possible.
3. Minimize negative impacts of authorized activities on fish, wildlife, and their habitats.
4. Avoid the introduction of and reduce the spread of invasive plants, exotic animals, and diseases.

Objectives

In the Moose Range and JPUA, habitat enhancement activities should be given priority over both the goals of timber harvest and the provision of opportunities for public recreation. The location, amount, and type of timber harvested should be determined primarily through consideration of the habitat needs of moose and/or other wildlife and the local needs for forest products. At any given time, large portions of the Moose Range and JPUA will be managed to produce moose forage and ruffed grouse breeding and nesting habitat (willow, aspen, birch, and cottonwood) rather than commercial or personal use forest products and recreation.

The Moose Range has the potential to produce moderate sustained yields of forest products. However, the spruce beetle outbreak beginning in 2016 caused significant white spruce mortality, limiting white spruce timber availability for the next several decades. Timber stands will be needed for moose escape and thermal cover, to act as buffers on trails, roads, and private property, and to provide for personal use firewood. Timber harvests in the near term can focus on beetle-killed spruce. Maintaining some levels of dead trees for cavity nesting birds and other wildlife that rely on standing dead trees for portions of their life cycle should be considered.

While moose habitat enhancement is an overriding goal in the area, it is important that these activities occur in a way that limits their adverse impacts on other wildlife species and other beneficial uses of public lands. Habitat enhancement should be avoided in certain limited areas identified by DNR in consultation with ADF&G. The identified areas will focus on where habitat enhancement activities could be expected to increase negative human-wildlife interactions.

When issuing permits and leases or otherwise authorizing the use or development of state lands, DNR will recognize the requirements of the activity or development and the benefits and adverse impacts it may have to uses and habitat when determining stipulations or measures needed to protect fish and wildlife, or their habitats. When assessing if an authorization may have impacts to fish and wildlife or

their habitats, DNR will consult with ADF&G. The costs of mitigation relative to the benefits to be gained will be considered in the implementation of this policy.

DNR will enforce stipulations and measures and will require the responsible party to remedy any significant damage to fish and wildlife, or their habitats that may occur as a direct result of the party's failure to comply with applicable law, regulations, or the conditions of the permit or lease.

Management Guidelines

1. Habitat Enhancement

a. Enhancement Priorities. Protecting and enhancing moose and grouse habitat shall be given priority.

b. Habitat Manipulation. Habitat alteration through water control, timber management practices, removal of pollution sources, prescribed fire, or other measures may be used to improve habitat for fish and wildlife species where ADF&G determines that it is beneficial to the species or habitat and DNR determines that it is compatible with other primary uses.

c. Management of Invasive Species. DNR in cooperation with ADF&G should manage its lands and waters to avoid the introduction of and reduce the spread of invasive and non-native plants and animals, consistent with the requirements of 11 AAC 34.

d. Burning Near Coal Seams. Habitat enhancement methods which apply burning as a management tool are discouraged in areas with coal seams at or near the surface.

2. Fish and Wildlife Habitat

a. Conserve Fish and Wildlife Habitat. Conserve wildlife habitat, especially special features like standing deadwood, deciduous stands, beaver ponds/waterways, fish bearing waterbodies, naturally occurring mineral licks, raptor nest trees, fish and wildlife breeding and seasonal concentration areas, and transition zones.

b. Avoid Important Areas. Avoid disturbance/development in fish and wildlife nesting, calving, spawning and other birthing and rearing areas.

c. Mitigation. Authorized activities should avoid significant adverse effects on fish, wildlife, or their habitats through siting, timing, or other management options. When significant adverse effects cannot be avoided, the impact should be minimized or mitigated. If significant loss of fish or wildlife habitat occurs, the loss should be mitigated, to the extent feasible, by repair, rehabilitation, restoration, or in-kind replacement. DNR will consider requiring replacement with other areas with like resource values or enhancement of fish and wildlife habitat when substantial and irreversible loss of habitat cannot be avoided and shall consult ADF&G to help identify the species affected, the need for replacement or enhancement, and the suggested method for addressing the impact. Replacement with or enhancement of similar habitats of the affected species in the same region is preferable. DNR will consider only those replacement and enhancement techniques that have either been proven to be, or are likely to be, effective and that will result in a benefit to the species impacted by the development. Replacement or enhancement will only be required by DNR if it is determined to be in the best interest of the state either through the Best Interest Finding process AS 38.05.035(e) or permit review process.

Replacement may include structural solutions, such as creating spawning or rearing ponds for salmon, creating wetlands for waterfowl; or non-structural measures, such as research or management of the species affected, legislative or administrative allocation of lands to a long-term level of habitat protection that is sufficiently greater than that which they would otherwise receive, or fire management to increase habitat productivity.

d. Public Information, Education, and Interpretation. DNR and/or partners may educate the public through information displays and interpretive signs in the Moose Range and JPUA.
e. Moose Calving Areas. Uses that are likely to produce levels of acoustical or visual disturbance sufficient to disturb calving or post-calving aggregations that cannot be seasonally restricted should not be authorized in moose calving areas. Uses may be authorized in these areas at other times of the year. DNR authorizations should include seasonal restrictions on activities that would produce significant acoustical or visual disturbance during sensitive periods. Calving typically occurs from May through June. Moose calving areas change over time. ADF&G should be consulted prior to issuing an authorization in an area suspected to contain such concentrations to determine the location of calving areas, when activities within these areas should be avoided, and identify appropriate mitigation measures if no feasible or prudent alternative site exists.
f. Caribou. Impacts to caribou shall be minimized. Surface resource uses such as timber harvests and habitat enhancement should be designed in a manner that minimizes impact on caribou habitat. DNR should consult with ADF&G on the location of these areas to develop appropriate land authorization stipulations.
g. Dall Sheep. Impacts to Dall sheep shall be minimized. Surface resource uses such as timber harvests and habitat enhancement should be designed in a manner that minimizes impact on Dall sheep habitat. DNR should consult with ADF&G on the location of these areas and to determine appropriate stipulations to apply during the preparation of the timber harvest/habitat enhancement schedules. Disease transmission from domesticated livestock shall be avoided.
h. Eagles. Authorizations that potentially affect eagles will be consistent with the state and federal Endangered Species Acts and the Bald and Golden Eagle Protection Act of 1940 as amended. Applicable standards are drawn from a cooperative agreement signed by the U.S. Forest Service (USFS) and the USFWS or such subsequent standards that may be promulgated. These standards, however, may not be adequate in all circumstances, and the USFWS may determine that additional measures are necessary. In addition, meeting the guidelines does not absolve the party from the penalty provisions of the Bald and Golden Eagle Protection Act; therefore, the USFWS should be consulted when activities may affect bald or golden eagles.

   The Bald and Golden Eagle Protection Act ('Eagle Act') prohibits the take of bald and golden eagles, their parts, nests, and eggs either directly (such as by shooting or collecting parts) or indirectly (such as by disturbance or visual changes to the landscape). Under the Eagle Act, "disturb" means to agitate or bother an eagle to a degree that causes or is likely to cause injury, a decrease in productivity, or nest abandonment.

The USFWS has developed spatial and temporal buffers to assist with planning activities and siting facilities to avoid take of eagles. The recommended practices are designed to prevent human disturbance to eagles and their nests, particularly during the nesting season, when eagles are most sensitive to disturbance. If activities cannot be conducted outside the eagle nesting season or the recommended spatial buffers around eagle nests cannot be implemented, an Eagle Take or Eagle Nest Take permit may be needed.

Contact the Alaska Region of the USFWS to obtain: the most current information on nest locations; technical guidance for project activities near eagle nests, including buffer recommendations; and assistance with any necessary permits.

i. Siting Facilities to Avoid Eagle Nests. Facilities determined by the USFWS to cause significant disturbance to nesting eagles will not be allowed within 330 feet and up to one-half mile of any eagle nest site, whether the nest is currently active or not.
ii. Activities Disturbing Nesting Eagles. Activities the USFWS determines likely to cause significant disturbance to nesting eagles will be prohibited within 330 feet of active bald eagle nests between March 15 and August 31. Temporary activities and facilities that do not alter eagle-nesting habitat or disturb nesting eagles, as determined by the USFWS, may be allowed at other times.

i. Peregrine Falcons. Although American peregrine falcons are no longer listed under the federal Endangered Species Act, the USFWS encourages the continued conservation of these species by applying protection measures during the nesting period. In addition, activities that could have negative impacts throughout the year (not only during nesting periods) include habitat alterations, construction of permanent facilities, and pesticide use. The recommended protection measures, as well as technical advice on conducting activities near peregrine falcon nest sites, can be obtained from the Fairbanks Ecological Services office of the USFWS.
j. Waterfowl. In important waterfowl habitat, disturbance should be avoided during sensitive periods such as nesting, staging, or brood-rearing periods. If it is likely that a waterfowl concentration exists within the area affected by a potential project, consult with ADF&G and USFWS to identify areas of important waterfowl habitat to determine appropriate mitigation or avoidance measures. The USFWS recommends for migratory birds affected by the federal Migratory Bird Treaty Act and Migratory Bird Treaty Reform Act of 2004 that land disturbing activities be conducted before May 1 or after July 15 to avoid disturbing nesting, molting, and fledging birds in forests, woodlands, shrub or open areas.
k. Anadromous Fisheries. ADF&G should continue to maintain and protect anadromous fisheries including Wasilla, Moose, Eska, Young and Boulder creeks and in Kings and Chickaloon rivers.
l. Alteration of the Riverine Hydrologic System. To the extent feasible, channelization, diversion, or damming that will alter the natural hydrological conditions and have a significant adverse impact on important riverine habitat will be avoided. If projects like this are proposed, they will require a review and permit from the ADF&G Habitat Section and other agencies.
m. Protection of Mineral Licks. Mineral licks are used by significant numbers of wildlife primarily during the spring and early summer. Known mineral licks occur in the Moose Range and JPUA. The regular use of these areas suggests that the licks play an important role in the life history of

the animals that use them. These same areas may also have significant mineral reserves. The area around the licks should be protected for their wildlife value. Stipulations should be developed on a case-by-case basis, in consultation with ADF&G, for authorizations. The stipulations should address the following: 1) the avoidance of direct and indirect impact on the mineral licks, the animal tracks leading to them and other areas of concentrated animal use that is associated with the mineral lick; 2) the method and routing of mining-related access to these areas. Consult with ADF&G for their specific locations.

n. Threatened and Endangered Species. All land use activities will be conducted consistent with state and federal Endangered Species Acts to avoid jeopardizing the continued existence of threatened or endangered species of animals or plants, to provide for their continued use of an area, and to avoid modification or destruction of their habitat. Specific mitigation recommendations should be identified through interagency consultation for any activity that potentially affects threatened or endangered species. There are no known threatened or endangered species under either federal or state statute or regulation within the planning area. The U.S. Fish and Wildlife Service (USFWS), Division of Ecological Services, should be consulted on questions that involve endangered or threatened species of federal interest and those listed by the state.

   Consideration should also be given to wildlife listed by the state within the State Wildlife Action Plan as Species of Greatest Conservation Need (SGCN) which are species whose populations are declining or under threat, species that are culturally, ecologically, or economically important in the state, species for which the majority of their range occurs in Alaska, or species that are indicators of environmental change. Location of species and mitigation should be determined in consultation with ADF&G during project reviews. As of 2022 there were three known SGCN identified within the Moose Range and JPUA including the rusty blackbird (*Euphagus carolinus*), the olive-sided flycatcher (*Contopus cooperi*), and the little brown bat (*Myotis lucifugus*). The olive-sided flycatcher was identified during the North American Breeding Bird Survey, located in the SW corner of the Moose Range, making this area an important habitat for the species.

Forestry

Background

The forests in the Moose Range and JPUA consist of mixed spruce forest. Areas below 1,000 feet in elevation are covered by a mixed forest of paper birch, quaking aspen, and white spruce. Areas between 1,000 and 1,500 feet in elevation are typically covered by a mixed forest but may contain areas of almost-pure stands of aspen, birch, spruce, or cottonwood. Areas above 1,500 feet in elevation are broken into fingers with open grasslands or shrublands between stands of trees. The forested areas consist primarily of pure stands of white spruce, cottonwood, aspen and sometimes birch. They will be bordered by willow or alder, which in turn is generally bordered by alpine tundra or grass.

The forest resource, although providing valuable moose habitat, could provide more valuable habitat than it is providing at present. Forest management could augment the availability of forage.

The Southcentral spruce beetle outbreak that began in 2016 severely impacted the Matanuska and Susitna valleys, including this area, limiting the availability of white spruce available for harvest in the future. The spruce mortality was extensive, and a significant portion of the dead trees contain increased incidents of decay fungi, limiting the potential uses.

Timber harvest has occurred occasionally in the Moose Range and JPUA since the 1980s. The locations of timber harvest are limited because of access and market demand. DOF&FP timber sales are identified in the Five-Year Schedule of Timber Sales, issued every two years and available on the DOF&FP website.

Resource development, like opening of material sites, road construction, and mineral development, may create additional areas in which timber harvest should be encouraged to utilize the resource prior to development.

Goals

1. Harvest timber in a manner that maintains or enhances moose and ruffed grouse habitat and moose populations, while simultaneously making timber available to meet public demands for fuelwood and, to a lesser extent, for house logs and sawtimber.
2. Timber harvest methods should protect environmental values wherever possible.
3. Support DOF&FP to manage forested lands consistent with their mission and authorities.
4. Minimize negative impacts of authorized activities on fish, wildlife, and their habitats.
5. Minimize the threat of wildland fires to nearby communities.
6. Improve forest health and habitat by making forest lands in the Moose Range and JPUA available for carbon offset projects.

Objectives

In the Moose Range and JPUA, timber harvest projects are secondary to habitat enhancement activities and public recreation. The location, amount and type of timber harvested should be determined primarily through consideration of the habitat needs of moose and/or other wildlife and the local needs for forest products. At any given time, large portions of the Moose Range and JPUA will be managed to produce moose forage and ruffed grouse breeding and nesting habitat (willow, aspen, birch, and cottonwood) rather than commercial or personal use forest products and recreation. If timber sales are considered, the primary outcome of the sale must be habitat enhancement.

The Moose Range and JPUA have the potential to produce moderate sustained yields of forest products. However, the spruce beetle outbreak beginning in 2016 caused significant white spruce mortality, limiting white spruce timber availability for the next several decades. Timber stands will be needed for moose escape and thermal cover, to act as buffers on trails, roads, and private property, and to provide for personal use firewood. Timber harvests in the near term can focus on beetle-killed spruce. Maintaining some levels of dead trees for cavity nesting birds and other wildlife that rely on standing dead trees for portions of their life cycle should be considered.

Management Guidelines

1. Timber Harvest

a. Timber Harvest. The DOF&FP may authorize timber removal for such administrative purposes as timber sales, timber salvage, habitat manipulation, fuels management, forest health protection, or other purposes as determined appropriate by the implementing agency. Projects shall be implemented in coordination with DNR and ADF&G. However, only timber harvest operations that enhance fish and wildlife habitat will be authorized in the Moose Range and JPUA.

b. Wildlife Habitat. Forest management can be an important tool for improving wildlife habitat. DOF&FP will consult with ADF&G's local biologist during the planning stage of timber harvest layout and in the preparation of the Forest Land Use Plan to receive guidance on wildlife habitat enhancement opportunities. Trees and vegetation may be manipulated by cutting, crushing, harvesting, or burning to provide or improve wildlife habitat.

c. Timber harvest operations will be conducted in accordance with the stipulations in the Forest Land Use Plan, the Five-Year Schedule of Timber Sales, the Alaska Forest Resources and Practices Act (AS 41.17 & 11 AAC 95), the Alaska Land Act (AS 38.05 & 11 AAC 71), and other pertinent state guidelines and laws. The Forest Practices Act provides statewide policy and regulatory authority for managing forestry related activities. The specific layout and other site-specific requirements of a timber sale are addressed through a Forest Land Use Plan (FLUP), which is prepared prior to any commercial timber harvest or sale that is greater than ten acres in size (AS 38.05.112). FLUPs developed for timber sale or harvests in the planning area are to be consistent with the Forestry Management Guidelines of this Chapter. FLUPs shall consider, in their preparation, the sensitive resources and wildlife, or any other significant factors, identified in the Management Guidelines for specific subunits as identified in Chapter 3 of this plan.

d. Elevation Restrictions. Timber harvests should generally be restricted to areas below the 1,100-foot contour on Arkose Ridge and the 2,000-foot contour below Castle Mountain.

e. Burning Near Coal Seams. Habitat enhancement methods that prescribe burning as a management tool are discouraged in areas with coal seams at or near the surface.

f. Personal Use Wood Harvest. When forested lands are available near communities and where personal use harvest is consistent with other purposes for which the land is being managed, DOF&FP may provide wood products for personal use. This program will only be undertaken, however, if it can be effectively and efficiently administered by DOF&FP.

2. Leasing for Carbon Management Purposes

DNR may lease land for carbon management purposes under AS 38.05.081 if consistent with the enabling legislation of the Moose Range and JPUA and if the project area is of a size that does not diminish the legislative intent for the area. Lands authorized for this purpose shall continue to be accessible to the public for their use and enjoyment. ADF&G shall be consulted to minimize and address any potential negative impacts to fish, wildlife, or their habitat within the planning area.

Grazing

Background

Active grazing has not occurred within the Moose Range in many years. There are currently no active grazing authorizations within the boundary of the Moose Range or JPUA.

Goals

1. Preserve the integrity of the Moose Range and JPUA ecosystem primarily for wildlife habitat.
2. Consider opportunities for grazing that do not impact fish, wildlife, or their habitats.

Objectives

There is significant concern that diseases from domesticated and urban wildlife, particularly livestock, will harm moose and wild sheep in the Moose Range and JPUA. Additional concerns include competition for resources, vegetation and water quality damage, and genetic pollution (sheep). Grazing may only be considered in non-alpine areas of the Moose Range and JPUA if the activity does not negatively impact or conflict with fish, wildlife, or their habitats per consultation with ADF&G.

Management Guidelines

1. Authorization Requirements

Grazing in the Moose Range and JPUA may be authorized in consultation with ADF&G only if the activity does not conflict with the enabling legislation and the Moose Range and JPUA Management Plan. Any grazing proposals will follow normal DNR procedures. Grazing shall not be authorized if the proposals have negative impacts on outdoor recreation, wetlands, creeks, fish, wildlife, or their habitats per consultation with ADF&G. Grazing shall not be authorized in alpine areas.

Material Sources

Background

The Matanuska River and its tributaries may contain an abundance of materials. The materials deposited by water are generally well-sorted beds with particle size ranging from sand and gravel to rock and cobble. The glacial deposits are often undifferentiated with particles of all sizes, often including fine particles (silt and clay) found together. Lower Granite Creek has a large deposit located on private lands. Other private lands along Murphy Road, west of Sutton and near Drill Lake all contain deposits of construction materials.

Goals

1. Utilize materials (aggregate, riprap, railroad ballast, road ballast, road metal, peat, silt, loam, sand, gravel, stone, pumice, common clay, limestone, slate, and any other substances from the ground that are not considered locatable minerals) within the Moose Range and JPUA in a manner which does not adversely affect fish and wildlife habitat and recreational opportunities.

Objectives

It is expected that there will be demand for materials for Glenn Highway improvements, logging or mining roads, trail maintenance, and local use. Proposed uses will need to be consistent with the following guidelines.

Management Guidelines

The following management guidelines should be considered by the state when considering designating material sites and when adjudicating material contract or sales requests at sites already designated.

1. Location of Materials Sources

a. Material Extraction for Public Recreation Projects Within the Moose Range and JPUA. Materials may be extracted for public recreation projects that benefit the Moose Range and JPUA, enhance public safety, and are consistent with the purposes of the Moose Range and JPUA. Material sites for public recreation projects within the Moose Range and JPUA will be considered by DNR through a Best Interest Finding as directed by AS 38.05.035(e). DNR shall consult with ADF&G.

b. Material Site Designation. The extraction of materials from the planning area is discouraged unless there is no feasible alternative. If a material site within the planning area is needed for projects near the Moose Range and JPUA, the site should be considered for designation by DNR through a Best Interest Finding as directed by AS 38.05.035(e).

c. Preferred Order. Proposed material sources within the planning area may be considered in the following order:
    i. Upland areas of the Moose Range and JPUA.
    ii. Inactive floodplain sites in the Moose Range and JPUA.
    iii. Active floodplain sites in the Moose Range and JPUA.

d. The public and agencies are encouraged to seek the most preferred material source that is both economic and feasible.

e. Floodplain Sites. Floodplain sites within the Moose Range and JPUA may become a preferred material source, in concurrence with ADF&G.

f. Designated Material Sites Within Water Sources. Proposed material site designations located within stream, lake, or wetland buffers may be considered on a case-by-case basis in consultation with ADF&G, USACOE, and DEC.

g. Chickaloon-Knik-Nelchina and Chickaloon River Trails. Material site designations may not be located within the buffer of the Chickaloon-Knik-Nelchina and Chickaloon River Trails except for the purpose of maintaining the trail. If a material site is designated for trail maintenance the site shall not be visible from the trail.

h. Material Extraction. If a site is designated, materials can be sold or conveyed as provided in AS 38.05.550 – 38.05.565.

2. Screening

A natural, topographic or embankment screen sufficient to shield the material sites and equipment from the view of motorists traveling along the Glenn Highway, Buffalo Mine Road, Jonesville Mine Road, and

Chickaloon River Road should be maintained. Where this level of screening is not prudent and/or feasible, project specific screening to the maximum extent possible will be required.

3. Access

The cleared area for an access road to a material site will be limited to the minimum necessary for clear sightlines and site operations. Other authorizations for the purpose of access may be required.

4. Stream Crossings

Authorizations from USACOE and a Fish Habitat Permit from the ADF&G Habitat Section may be required.

5. Vegetation Removal

a. Utilization of Timber. If there is sufficient volume, standing timber in areas to be excavated for a material site or access road should be offered to the public.
b. Vegetation may be stripped no more than one year before pit development. The area of vegetation removal will be for the immediate areas of the excavation, access, sites for overburden storage, material stockpiles and equipment.

6. Site Reclamation

Reclamation of Closed Sites. Once a site is depleted, it should be revegetated with plant species primarily beneficial to moose and approved by ADF&G.

7. Waterbodies and Riparian Habitat

a. Waterbody Requirements. There shall be no gravel removed below the active water table or within 50 feet of a waterbody unless material extraction is part of a fishery enhancement project. Fifty feet is a minimum; a greater distance may be specified where necessary due to site conditions. Vegetation will not be disturbed within this buffer zone unless approved by ADF&G.
b. Shallow, Even Removal. Gravel shall be removed in shallow, even lifts so as not to create any pits or depressions which could entrap fish after periods of high water.
c. ADF&G Guidelines. Material sites used for fisheries enhancement will be done in accordance with ADF&G criteria for the evaluation of new stocking projects and prioritizing active projects.

8. Public Review

Subject to Public Review. Public notice is required for designating material sites.

9. Blasting Activities

Applications that include blasting activities within the Moose Range and JPUA may be considered on a case-by-case basis. Rock quarry operations will be subject to the applicable guidelines in this chapter and other mitigating factors as determined by DNR.

Public Use Sites

Background

Public Use Sites are sites that have been identified as particularly important for public access, recreation, camping, fishing, or other recreation or public use. These sites have high public value, typically see a higher concentration of public use, and should receive a higher degree of management attention.

Goals

1. Identify areas that have high public use and actively manage them to minimize user conflicts, ensure public safety, and enhance their recreation values.

Objectives

Public Use Sites may have a higher level of facility development, management, and enforcement presence than other areas in the Moose Range and JPUA. Public Use Sites may include regulations that, in some cases, are more restrictive than Generally Allowed Uses of State Land including but not limited to camping restrictions and prohibiting the discharge of weapons.

Management Guidelines

1. Public Use Sites

a. The following Public Use Sites are designated in the plan: Slipper Lake, Eska Falls, and Wishbone Lake. See Map 7 in Chapter 3 (page 3-25).
b. Improvements such as public recreational facilities, docks, and boat ramps are encouraged in Public Use Sites.
c. Within a Public Use Site camping may be restricted to a campground, identified campsites, or within a certain distance of a developed recreation facility when developed[1].
d. To protect public safety, DNR may restrict the use and discharge of weapons (including for hunting and trapping) in Public Use Sites, or within a certain distance from a developed facility.[2]
e. DNR may allow target shooting within a Public Use Site only within a designated and managed shooting area.

Recreation

Background

The lands now designated as the Moose Range and JPUA have been used by the public for dispersed recreational activities for years. The recreational land base of the area is extensive, including several large river valleys and small streams traversing diverse vegetation, geological and wildlife habitat types. The outstanding mountain scenery and scenic views of Castle Mountain and Granite Peak are some of the many valuable and scenic recreational resources.

[1] This management guideline will require the promulgation of regulations for implementation.
[2] This management guideline will require the promulgation of regulations for implementation.

The wildlife in the Moose Range and JPUA make the area popular for hunting of moose, black and brown bear, Dall sheep, snowshoe hare, ruffed and spruce grouse, and ptarmigan; trapping of a variety of furbearers; and wildlife viewing. Fishing for salmon, Dolly Varden and rainbow trout is popular in the streams. Dolly Varden, grayling and/or rainbow trout are also caught in Seventeen Mile, Wishbone, Fish and Chain Lakes.

Hiking, biking, horseback riding, cross country skiing, climbing, and snowmachining extend into the most remote areas of the Moose Range and JPUA. Off-road vehicle use is common on Permanente Road, Buffalo Mine Road, old mining roads near Sutton and along Boulder Creek, as well as on trails off Wendt Road, Murphy Road, and East Yarrow Road. Whitewater kayaking and rafting is popular on the Chickaloon River. Kings River and Moose Creek both have potential for expert level kayaking. Fossil viewing and rock collecting are popular along Moose Creek, the north side of Wishbone Hill, Chickaloon River and Boulder Creek. Recreational gold panning and dog mushing also occur along the Chickaloon River.

These dispersed activities generally occur along the existing complex network of trails within the Moose Range and JPUA. The JPUA Management Subunit sees the highest concentration of recreational use and user conflicts and is discussed in detail in Chapter 3.

The most popular trails are the Permanente Road Trail, the Chickaloon-Knik-Nelchina Trail, the Chickaloon River Trail, the Boulder Creek Trail, and the Young Creek trails. Several old mining roads between Moose Creek and Seventeen Mile Lake are used frequently as trails. For more information about trails see the Trails section on page 2-38.

Goals

1. Provide opportunities for dispersed public recreation.
2. Manage public recreational use so that the level and type of use does not adversely affect moose populations and habitat.
3. Develop recreational facilities in high concentration areas that reduce user conflict and improve public safety.
4. Complete a Trails Management Plan.
5. Provide funding necessary for the development and maintenance of facilities and their management.
6. Provide funding necessary for staff to enforce the regulations that result from this management plan.

Objectives

The Moose Range and JPUA will be managed to provide dispersed public recreation activities for multiple uses to the extent this does not cause significant conflicts with the overall goal of supporting moose, fish, and other wildlife populations and habitat. Facility development should only be authorized in areas where there is concentrated use, will improve public safety, will reduce user conflicts, and/or prevent impacts to fish, wildlife, and their habitat.

Management Guidelines

1. Public Recreation Facility Development

a. Location of Facilities. Development of recreational facilities on state lands should be limited to areas near the edge of the Moose Range and JPUA or in areas where there is a high concentration of use. Chapter 3 of the management plan provides specific guidance for facilities in each management subunit. The purpose of these developments is to provide for camping facilities, resource protection, wayfinding, habitat protection, and to provide parking and access. The management intent is to direct public use to developed facilities and specific locations while limiting the amount of development within the majority of the Moose Range and JPUA. Facilities should be developed at major access points where use or access can be enhanced or where the presence of facilities may decrease impacts to fish, wildlife, and their habitats.

b. Trailhead Facilities. Trailhead facilities should be located within the Moose Range and JPUA (or on an authorized site) at the beginning of major trails that serve as key access points. Parking, wayfinding and informational signage, restrooms, and interpretative signage may be provided as appropriate.

c. Expansion and New Development. Expansion of existing facilities or development of new recreation sites should be based on public demand and use patterns, as well as funding and staffing constraints.

d. Priorities for Upgrading Established Sites. There is already a concentration of recreational use occurring along the Glenn Highway. Therefore, upgrading existing recreational facilities should be a high priority along the Glenn Highway to meet current and projected recreational demand. Existing public facilities for overnight camping should be upgraded and improved as appropriate (managed by DNR Division of Parks & Outdoor Recreation (DPOR) and other partner agencies) at Long Lake, King Mountain, and Moose Creek campgrounds, DNR land that is seasonally managed, improved, and maintained by Chickaloon Village Traditional Council.

e. New Overnight Camping Facilities. New facilities should be developed for overnight camping at Slipper Lake (see page 3-26 for more details).

f. Shooting Ranges. To improve public safety, shooting areas with specified hours/days of operation may be designated within the planning area. Areas will be located where shooting can occur in a safe manner and where impacts to fish and wildlife habitat are minimized. An accessible, year-round location is preferred. Shooting ranges authorized in the Moose Range and JPUA will be operated and maintained according to best management practices.

g. Coordination with Coal Lessee. Facilities should be developed in areas with low potential for future mineral extraction activities, therefore, coordination with lessee is required.

2. Commercial Recreational and Non-Commercial Recreational Facility Development

a. Commercial. Commercial recreational facility developments will not be authorized on state land within the Western, Middle, or Eastern Management Subunits due to the potential impacts on wildlife habitat enhancement objectives. See Chapter 3 for commercial recreational facility development guidelines for the Jonesville Management Subunit (page 3-15). Applications for commercial recreational purposes (in conjunction with a development located on non-state

land) will be reviewed and require interagency coordination with ADF&G and approval by DNR. Authorization should be issued only if the activity is found to be consistent with the Moose Range and JPUA Management Plan.

b. Non-commercial. Non-commercial recreational developments may be considered. These developments must be for the public benefit and be consistent with the intent of the management plan and enabling legislation. Non-commercial developments require DNR and ADF&G approval.

3. Public Safety

a. Discharge of Weapons. The use and discharge of weapons, except if conducting lawful hunting and trapping, may be restricted range wide and limited to designated shooting areas only. DNR may also restrict the use and discharge of weapons for hunting and trapping in Public Use Sites near developed facilities like campgrounds, etc. (See Public Use Site Guideline on page 2-25) [3].

b. No Facilities in Hazard Areas. Many of the creeks and rivers in the Moose Range are subject to flooding and steep mountainous areas are subject to avalanches. Site selection and design of any new recreation facilities should be located to avoid flood and avalanche hazards.

c. Enhancement Near Facilities. Habitat enhancement activities around campgrounds or picnic areas will be conducted with public safety in mind and designed to avoid attracting potentially hazardous wildlife or causing wildlife-human conflicts.

d. Litter and Hazardous Waste Materials.
    i. Sanitary and bear resistant waste disposal facilities should be developed in areas of concentrated use such as parking and camping areas.
    ii. DNR should work with appropriate federal, state, or local agencies to identify and address violations of environmental laws and regulations.

e. DNR and Law Enforcement Presence. DNR and law enforcement presence should be increased in the Moose Range and JPUA. Regulations should be drafted as necessary to implement the plan and manage state resources.
    i. Initiate and continue DNR field presence in the Moose Range and JPUA.
    ii. Work with the Department of Public Safety to enforce state statutes and regulations.
    iii. Work closely with users of the Moose Range and JPUA to obtain information on violations of local, state, and federal laws and regulations.
    iv. Coordinate where appropriate with the MSB and Chickaloon Native Village.

4. Information and Education

a. Displays. To educate the public about the Moose Range and JPUA, informational displays may be developed in camping, picnicking, and trailhead facilities servicing the Moose Range and JPUA. These displays may include an explanation of the legal access, illegal activities and their consequences on the public area (with number to report violations), public natural resource values, recreational opportunities, wildlife habitat enhancement efforts and the multiple use concept being used to manage the Moose Range and JPUA, wildlife viewing opportunities,

[3] This management guideline will require the promulgation of regulations for implementation.

unique ecosystems and geological features and natural hazards in the Range. ADF&G and DNR shall jointly develop the wording of informational signs.

b. Brochures. To educate the public about the above-listed topics, informational brochures may be prepared by ADF&G, DNR, and the MSB. DNR in consultation with ADF&G should develop the wording of informational brochures.

5. Management of Recreational Uses

In areas where recreational use may cause significant adverse effects on fish and wildlife populations and their habitats, site-specific restrictions on recreational activities may be necessary. Areas that are particularly sensitive to recreational activity may require restrictions on use. These areas may include, but are not limited to, areas identified by ADF&G with habitat enhancement projects, habitat critical for fish and wildlife, or areas where recreational activities have devalued fish and wildlife resources. Any restrictions will require interagency review.

6. Recreational Management on Non-State Land

a. Borough Involvement. The recreational needs of local communities should, in part, be provided for by the MSB. DNR should work with the MSB to ensure that the demand for recreational opportunities is met on either state, borough, or other land where appropriate. Both Sutton and Chickaloon communities have recreational needs which could be met using borough lands within or adjacent to the Moose Range and JPUA. The borough is encouraged to consult with DNR and ADF&G prior to the development or dedication of a recreational area within the Moose Range and JPUA boundary.

b. Private Citizen Involvement. DNR encourages the borough to undertake a program with local landowners to promote voluntary protection of visual quality on private lands. Such a program might include restrictions on removal of vegetation and incentives to remove junk cars and similar refuse.

7. Trails, Access, and Management of Off-Road Vehicle Use

a. Trails Management Plan. DNR will develop a Trails Management Plan (TMP) to identify existing trails, identify opportunities for new trails and trailheads, create standards for trail types, trail management, and develop regulations if necessary to minimize adverse impacts.

b. The TMP should identify opportunities to develop new trails within the planning area to maintain or enhance motorized and non-motorized use. These trails should be developed consistent with the following guidelines:

   i. New trails within the planning area will be developed as sustainable trails, be consistent with the management strategy of dispersed recreation, be sited to avoid sensitive areas and be designed to minimize impacts to fish and wildlife and their habitats.

   ii. If new facilities or trails cannot avoid sensitive areas including waterfowl nesting habitat, fish spawning and rearing areas, moose calving concentration areas, or bird nesting areas, they should be designed and developed to minimize adverse impacts to these resources.

   iii. New facilities or trails that cannot avoid or minimize adverse impacts to sensitive areas may not be approved.

c. DNR will consult with ADF&G to identify any sensitive habitats and shall provide management guidelines and recommendations that will avoid or minimize impacts to these habitats.
d. Routes suitable for Off-Highway Vehicles (OHV) that traverse uplands, use hardened stream crossings, and avoid sensitive wetlands should be identified.
e. The TMP should also identify trails that are unsustainable and/or are causing resource damage and identify recommendations for decommissioning or revegetating.

Subsurface Resources

Background

A portion of the Matanuska Coal Field lies within the Matanuska Valley Moose Range and JPUA. The coal field, as delineated by the Alaska Division of Geologic and Geophysical Surveys, lies in a band approximately 42 miles long and 6 miles wide on the north side of the Matanuska River. This band of coal also extends outside of the Moose Range and JPUA, south of the Matanuska River and east of the Moose Range and JPUA boundary. The coal fields are specifically described as Townships 19 through 21 North, Ranges 2 through 8 East, Seward Meridian.

The Alaska Division of Geological and Geophysical Surveys has determined that approximately 75,000 acres of the Matanuska Coal Field within the Moose Range and JPUA has moderate-to-high potential for coal development. That is slightly more than half of the total of 132,500 acres in the Moose Range and JPUA. The land was consequently designated 'competitive' for leasing purposes. Currently, there are ten existing state coal leases, encompassing approximately 8,383 acres, in the Moose Range and JPUA. Commercial development of the field is possible (see Map 3 on page 2-33).

In the Moose Range and JPUA, it is estimated that at least 100 million tons of coal are present, of which 32.5 to 60 million tons are potentially able to be mined. The coal deposits are located in the 3,000-foot thick Chickaloon Formation, a Paleocene sequence composed of claystones, siltstones, sandstones, and conglomerates. There are up to 30 coal beds within the upper half of the formation ranging from several inches to more than 10 feet thick.

The Chickaloon Formation is overlain by the Wishbone and Tsadaka Formations, up to 1,800 and 450 feet thick, respectively. The Chickaloon Formation is exposed on the limbs of a syncline whose axis runs along the center of Wishbone Hill.

Limestone and haydite sources are also known to be present in the Range (haydite is used to make strong, yet lightweight, concrete). Placer deposits do exist, though in limited amounts. There are limited oil and gas resources in the Range.

The coal in the Moose Range and JPUA is among the highest quality found in Alaska. This coal compares favorably with that found in the Lower 48 and the interior of Alaska. The Matanuska coal field is among the smallest in Alaska, and by itself could not sustain long-term, large-scale production for export. However, because of the high quality of coal, access to transportation facilities, and the high value of bituminous coals in the Moose Range when compared to the sub-bituminous coal produced in the interior, mining is possible.

There are a variety of scenarios that could occur regarding the Matanuska coal in the Moose Range and JPUA. However, evaluation is difficult because it is impossible to predict the exact future of coal development due to coal's direct dependence on the world marketplace. To focus on one development would be misleading. Because of the quality and quantity of coal resources, it is necessary to visualize the Matanuska Valley Moose Range and JPUA encompassing a variety of coal development at different levels in the future.

Under favorable conditions, a coal lease within the Moose Range and JPUA may be brought into production in six to ten years. Coal leases exist, however currently in 2023, market conditions are not favorable. The market for Alaskan coal could be much stronger in the future.

Goals

1. Allow and encourage development of coal and other subsurface resources.
2. Reduce the adverse impacts of coal development on environmental and habitat values in the Range through compliance with the provision of the Alaska Surface Coal Mine Control and Reclamation Act (ASCMCRA) (AS 27.21) and other applicable state, federal, and local laws and specific plan guidelines.
3. Assure that mined lands are reclaimed as wildlife habitat, primarily beneficial to moose.

Objectives

All land within the Moose Range and JPUA is open to mineral exploration and development except for the southern face of Castle Mountain and certain small areas around specific mineral licks. The southern face of Castle Mountain is closed to locatable mineral entry and is not available for mineral leasing. Mineral licks are closed to locatable mineral entry.

Coal leases offered within the Moose Range and JPUA were in response to industry interest. Please see Map 3 (page 2-33) exhibiting current coal leases and permitted mines. DNR should avoid authorizing recreation or other facilities within coal lease boundaries. Reclamation plans for mines provide an opportunity to enhance moose habitat and provide additional recreational opportunities.

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PLANNING AREA: MATANUSKA VALLEY MOOSE RANGE & JONESVILLE PUBLIC USE AREA - MINING CLAIMS AND MINERAL LEASES

MAP 3

- Western Subunit
- Jonesville Subunit
- Middle Subunit
- Eastern Subunit
- Jonesville Public Use Area
- RS2477 Trails
- Roads

Division of Mining
- Closed to Mineral Entry and Not Opened to Leasable Minerals

Subsurface Resources
- Haydite Shale Deposits
- Limestone Deposits

State Mining Claims
- Open

Mineral Estate Permits and Leases
- Usibelli Coal Mine Inc.
- Barrick Gold U.S. Inc

ALASKA DEPARTMENT OF NATURAL RESOURCES

MOOSE CREEK DRAINAGE
GRANITE CREEK DRAINAGE
KINGS RIVER DRAINAGE
CHICKALOON RIVER DRAINAGE
BOULDER CREEK DRAINAGE
CHICKALOON
SUTTON
WENDT ROAD
E. SOAPSTONE RD
BUFFALO MINE RD
JONESVILLE MINE RD
SLIPPER LAKE
WISHBONE LAKE
SEVENTEENMILE LAKE
MOOSE CREEK
GRANITE CREEK
KINGS RIVER
CHICKALOON RIVER
BOULDER CREEK
MATANUSKA RIVER
GLENN HWY
RST 47
RST 427
RST 433
RST 564
RST 1420

RS2477 Trails

RST 47	Chickaloon-King-River Road
RST 427	Chickaloon River Trail
RST 433	Caribou Creek Trail
RST 564	Chickaloon-Knik-Nelchina Trail
RST 1420	Eska Strip Mine Trail

RS Routes Note

RS 2477 routes are included for land management purposes and users should not assume the route is available for public use. If you are not sure whether a trail you want to use is a certified R.S. 2477 right-of-way, check public land records and consult with each landowner or managing agency before crossing the property.

0 4 8 12 Miles

NORTH

This map is for graphic representation only and is intended to be used only as a guide.
Created August 2024
Coordinate System: WGS 1984 Web Mercator Auxillery Sphere

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Management Guidelines

1. Coal

a. Process for Coal Development. Approval of coal exploration, development and mining activities shall be consistent with the Alaska Surface Coal Mining Control and Reclamation Act (ASCMCRA) and its implementing regulations, with interagency agreements, and with guidelines developed in the SMAP and this plan. As outlined in ASCMCRA, surface coal mining activities are controlled by issuance of a surface coal mining permit after a thorough technical review of the application by state agencies. The surface mining permit is the principal mechanism for reducing the potential adverse impacts of coal development. It includes an operation and reclamation plan designed to protect environmental resources such as wildlife habitat, air quality and water quality and to ensure concurrent reclamation for a specified post-mining land use.

b. Post-Mining Land Use. Within the Moose Range and JPUA, the post-mining land use is designated as wildlife habitat. Reclamation must be directed to a habitat type and density which is primarily beneficial to moose consistent with ASCMCRA.

2. Locatable Minerals (Gold, Chemical Grade Limestone) and Other Leasable Minerals (Oil and Gas)

a. Best Management Practices. Best management practices shall be considered when ADF&G makes recommendations for the rejection or modification of a miscellaneous land use permit or a plan of operations for placer mining.

b. Mineral Development. Mineral development will follow existing established DNR procedures and include interagency review of the following:

   i. Development plan and schedule.
   ii. Operation plan.
   iii. Access plan.
   iv. Impact assessment on fish and wildlife, their habitat, and related uses.
   v. Impact assessment on scenic values.
   vi. Proposed mitigation and wildlife habitat rehabilitation.

c. Removal of Vegetation. The area of vegetation removal should be for the immediate areas of the excavations, sites for overburden storage, settling ponds, access roads, equipment storage and necessary structures within the mine or drilling site. This must be outlined in the plan of operations or application for a miscellaneous land use permit.

d. Mine or Drilling Site Consultation. An on-site, predevelopment conference between the mine operator, DNR, ADF&G, and DEC officials will be held when staff and budget allow. The intent is to assist the mine operator in developing the operation in a manner which will promote compatibility with wildlife and habitat enhancement in the vicinity of the mine or drilling site.

e. Rehabilitation of Mining Sites. Reclamation plans will be required for mining activities authorized by a miscellaneous land use permit or a plan of operations. Mining sites will be rehabilitated and revegetated to a plant species for habitat primarily beneficial to moose as approved by ADF&G. Reclamation may include soil remediation. Disturbed acreage should be kept to a minimum and reclaimed as phases of the mine operations are completed unless this is not feasible or prudent. ADF&G and DOA's Plant Materials Center should be consulted as to

types of vegetation most conducive for returning the mined area to a state of wildlife productivity and/or design of contours to best benefit fish and wildlife. Rehabilitation plans should be approved by ADF&G and DNR. The expense of the rehabilitation will be borne by the developer of the mining site.

f. Miscellaneous Land Use Permits. Prior to issuance of any Miscellaneous Land Use Permit within the Moose Range and JPUA, ADF&G should provide comments to DNR on the consistency of the proposed action with the approved Moose Range and JPUA Management Plan. DNR will include in Miscellaneous Land Use Permits those stipulations recommended by ADF&G that are necessary to provide adequate protection for fish and wildlife and their habitats consistent with the Moose Range and JPUA enabling legislation.

g. Oil and Gas. The state Division of Geological and Geophysical Surveys has determined that the potential for oil and gas in the entire Moose Range and JPUA is low to no potential. Oil and gas exploration and development in the Moose Range and JPUA may be permitted if development does not conflict with the enabling legislation and the Moose Range and JPUA Management Plan. Any proposals for development shall follow normal DNR procedures in consultation with ADF&G.

3. Areas Closed to Mineral Location and Development

a. Castle Mountain Face. The southern face of Castle Mountain is closed to locatable mineral entry and will not be made available for the exploration or development of leasable minerals (see Map 3, page 2-33). Legal Description for Castle Mountain Mineral Closing Order:

T20N, R5E, S.M., Sec. 12, SW1/4, N1/2SE1/4, N1/2S1/2SE1/4,
N1/2S1/2S1/2SE1/4.
Sec. 13 NW1/4NW1/4.
Sec. 14 N1/2, NW1/4SW1/4, N1/2SW1/4SW1/4, N1/2S1/2SW1/4SW1/4.
Sec. 15 N1/2, N1/2S1/2, N1/2Sl/2S1/2, N1/2S1/2S1/2S1/2.
Sec. 16 N1/2, SW1/4, N1/2SE1/4, N1/2S1/2SE1/4, N1/2S1/2S1/2SE1/4,
Sec. 21 N1/2NW1/4, N1/2S1/2NW1/4, SW1/4SE1/4NW1/4, W1/2SE1/4SE1/4NW1/4

b. Mineral Licks. There are several known mineral licks in the Middle and Eastern Subunits that are important to the wildlife using them. Consult ADF&G to determine the location of mineral licks during project reviews and land authorizations.

   i. Definition. A significant mineral lick means a naturally occurring mineral lick that is used at least annually by one or more species as evidenced by:

      i. Well-established wildlife trails or braided trail systems leading to the mineral lick site, extensive excavation or trampling, and/or teeth marks, pellets, tracks, and hair.

      ii. This definition is not applicable where the mineral lick has been created by a human activity (e.g., road construction).

      iii. Both dry and wet mineral licks can occur. Mineral licks should be identified during spring, summer, and early fall.

   ii. Information to consider.

i. Avoid physical destruction of the mineral lick site (e.g., skid trail or road building).
ii. Maintain the integrity of wildlife trails between mineral lick sites and seasonal ranges (winter/spring range).
iii. Avoid locating new roads near known mineral lick sites and trails. It is important not to isolate the mineral lick from nearby escape cover (forest, cliffs, rocky outcrops); if roads are required near mineral licks, implement measures to minimize disturbance to mineral lick access trails by restricting the number of road crossings and by maintaining connectivity to adjacent forest areas.
iv. For existing roads near known mineral licks, minimize road use and disturbance (where possible) during critical use periods.
v. Where roads can be deactivated, do so as soon as possible; erect all-terrain vehicle barriers; reclaim roads with native vegetation.
vi. Where harvesting activities occur near lick sites, provide some visual screening (i.e., forested cover) around the lick; this will provide security and escape cover for animals using the lick.
vii. Arrange helicopter or fixed-wing flight plans to avoid areas with known mineral licks, especially during critical use periods (May–November; date will depend on geographic location and species).

iii. Buffer requirements.
i. Do not construct roads within 700 ft of a lick unless no other practical option exists. Maintain a visual screen between any roads (existing or built) and the lick. If no longer needed, reclaim any existing roads within 700 ft of the lick.
ii. Maintain a minimum 350 ft buffer of intact forest around licks; this buffer should include at least two primary trails leading to the lick and connect adjacent forest to provide a windfirm travel corridor.
iii. Avoid conducting field work that may influence wildlife behavior within 350 ft of a lick from April 1 to November 1 (where possible). Leave the area if animals are observed approaching or at the site.

4. Relationship of Minerals to Other Resource Values

a. Recreational Values. Mining operations should attempt to minimize the impact on the recreational use and values of an area. Recreational trails may be relocated if necessary to maintain safe public access around active mining operations. DNR and ADF&G will be consulted regarding trail relocation.
b. Public Access Across Mining Sites. Public access within an operating mine area may be restricted only if authorized under an approved plan of operations, or land use permit, to protect public safety, or to prevent unreasonable interference with the rights of the miner to operate.

Trails

Background

The Moose Range and the JPUA contain a variety of different trails and trail types that serve multiple uses throughout the year. Some trails are mapped and secured legally through official means, including RS2477 status or express grant easements authorized by DNR, while others are traditional routes that traverse multiple land ownerships and provide important access to the Moose Range and JPUA. Some trails are mapped and have been used for hunting and motorized and non-motorized recreation.

The most concentrated trail use in the summertime occurs in the Jonesville Management Subunit where there are conflicts between motorized and non-motorized users along the Eska Creek Trail. Additionally, a groomed network of multi-use winter trails has been established in the Western Management Subunit and maintained by the Mat-Su Ski Club. These trails are becoming increasingly popular and primarily serve those seeking 'close-to-home' recreation opportunities by residents from the growing neighborhoods adjacent to the Moose Range including Buffalo Mine Road, Soapstone Road, and residents of Palmer. The trails in the Western and Jonesville Management Subunits are becoming more popular on the weekends and see use from people from all throughout Southcentral Alaska. The trails in the Middle and Eastern Management Subunits see lower levels of use, comparatively.

Considerable trail, wetland, and stream degradation has occurred in the Moose Range and JPUA with the increased use of OHV and other motorized use. The most significant damage to wetland habitat from motorized use occurs in the fall, during the hunting season. In addition to trail degradation, new trails have been developed and have not been formally documented.

Goals

1. Maintain and enhance motorized and non-motorized recreational opportunities while protecting fish, wildlife, and their habitats.
2. Reduce trail user conflicts by designating some trails for specific uses.

Objectives

DNR should initiate a Trails Management Plan (TMP) for the Moose Range and JPUA to identify existing trails and assess existing conditions, including the level of impact trail use has had on fish, wildlife, and habitat. The TMP should establish trail types, uses, and guidelines by completing Trail Management Objectives (See the Alaska State Parks Trail Policy and Trail Management Handbook for guidance). The TMP may also identify where additional trails are needed to improve recreational opportunities, reduce user conflicts, and minimize impacts to fish and wildlife and their habitat. Additionally, and in consultation with ADF&G, trails that are incompatible with the plan goals and objectives may be closed or decommissioned.

Management Guidelines

1. Trail Management Plan

DNR may develop a Trail Management Plan to identify existing trails, identify opportunities for new trails and trailheads, create standards for trail types, designate uses for specific trails, designate responsibility for trail management, and develop regulations to minimize adverse impacts.

2. Managing Trail Use

a. Restricting Uses. Through the TMP process, DNR may identify appropriate use restrictions on trails for public safety and to minimize conflicts between trail users and incompatible uses and in consultation with ADF&G to protect fish, wildlife, and their habitat. If outside the TMP process, when DNR and ADF&G agree that a conflict exists and needs to be resolved using use restrictions, the following procedures should be followed:
    i. DNR and ADF&G Consultation. DNR and ADF&G should clearly identify the issues and problems involved and develop criteria necessary to determine the acceptable level of environmental degradation or disturbance, and the actions required to alleviate the problem.
    ii. Public Involvement. The state will involve the public recreational user groups affected by the conflict in developing a resolution.
    iii. Resolution Options. Options for resolution to be considered include, but are not limited to, seasonal use restrictions, relocation/reclamation of a trail away from the area of conflict, and closure of a specific trail or area to motorized vehicle use[4].
    iv. Exceptions. Management activities, such as research, forestry, DNR authorizations, ADF&G Fish Habitat authorizations, and habitat enhancement will be considered following Agency Review.

b. Signs. Wayfinding and informational signs may be posted along trails where desirable and in accordance with management needs.

c. Trailhead Parking. Trailhead parking facilities may be developed at major access points to the Moose Range and JPUA to provide the public with safe access to trails. Parking facilities shall be in areas that are safe, with good visibility to prevent vandalism and theft, and that are compatible with adjacent land uses. Parking lots shall not be developed in residential neighborhoods unless the trailhead is actively managed by DNR or another agency or partner. Restrooms and signage may be included.

3. Trail Maintenance

a. Maintenance. Trails should be maintained as funds and volunteer support permit. Trail maintenance work is intended to maintain a trail to the assigned trail type as identified in the TMP. Trail re-routes may be authorized to relocate a trail to a more sustainable layout. If trail maintenance is required outside of the TMP process, see 2a above.

[4] Whether through the TMP process or other processes, trail use restrictions will require the promulgation of regulations for implementation.

b. Signs. Wayfinding and informational signs may be posted along trails where desirable and in accordance with management needs.
c. Agreements. DNR may consider agreements with organizations or individuals for the maintenance of trails, segments of trails, or trailheads.
d. Volunteers. Agreements with volunteer groups for trail work are encouraged but should specify that the group has no exclusive rights to use.

4. New Trail Development

The TMP should identify opportunities to develop new trails within the planning area to maintain or enhance motorized and non-motorized use, reduce user conflicts, and accommodate increase demand in trails use. These trails should be developed consistent with the following guidelines:

a. Individuals, organizations, or partner agencies may submit applications to DNR for authorization to develop new trails. DNR shall consult with ADF&G and other agencies as appropriate.
b. New trails within the planning area should be developed as sustainable trails, be consistent with the management strategy of dispersed recreation, be sited to avoid sensitive areas, and be designed to minimize impacts to fish and wildlife and their habitats.
c. If new facilities or trails cannot avoid sensitive areas including waterfowl nesting habitat, fish spawning and rearing areas, moose calving concentration areas, they will be designed and developed to minimize adverse impacts to these resources in consultation with ADF&G.
d. All trails and developed facilities should be sited and developed to minimize impacts to anadromous waterbodies. Stream crossings should be developed generally perpendicular to the stream flow. Various activities on fish bearing waterbodies may require a Fish Habitat Permit through ADF&G such as bridges, culverts, water withdrawals, bank modifications, and some stream crossings.
e. New trails may be designated for specific purposes as identified in the TMP.
f. New facilities or trails that cannot avoid or minimize adverse impacts to sensitive areas may not be approved.

Water, Wetlands, and Waterbodies

Background

Almost all surface water runoff within the Moose Range and JPUA drains into the Matanuska River; the exception is upper Wasilla Creek which flows directly into the Knik Arm via the Palmer Slough. Four major tributaries to the Matanuska River pass through the Moose Range and JPUA. These include the Kings and Chickaloon Rivers and Moose and Granite Creeks. These streams generally flow south through narrow valleys or gorges and have cut canyons into bedrock over the last 10,000 years.

The headwaters of the Kings and Chickaloon Rivers and Granite Creek originate outside of the Matanuska Valley Moose Range and JPUA boundary. The headwaters of Moose Creek are located within the Moose Range and JPUA boundary. A large portion of the basin's annual runoff occurs in late spring and early summer months--May and June. Stream discharge decreases during winter because of cold temperatures and ice formation. The minimum discharge occurs during the late winter and sometimes the late summer.

There are several smaller creeks which are direct tributaries of the Matanuska River. These include, but are not limited to, Eska and Little Granite Creeks. Gloryhole and Knob Creeks are tributaries of Eska Creek. Tributaries of the three major streams include Premier Creek, Iron Creek, and Buffalo Creek (Moose Creek), Young Creek (Kings River), Boulder, Sawmill, California, and Doone Creeks (Chickaloon River). There are numerous unnamed tributaries of all four major streams.

There are numerous lakes within the Moose Range and JPUA, many of which are unnamed, although they probably have local names. Some of the larger lakes include Wishbone, Seventeen Mile, Slipper, Ruby (Rose), Fish and Drill lakes. All these lakes are located within three miles of the southern boundary in the Moose Range and JPUA and are accessible by existing roads or trails. Most of these lakes are surrounded by private lands. Wishbone and Slipper Lakes are surrounded by state lands, and Seventeen Mile Lake has state, borough, and private lands adjacent to it.

The Alaska Forest Resources and Practices Act (FRPA) regulates timber harvest as it relates to water quality. Therefore, this plan does not include water-related management strategies or guidelines for timber harvest.

Goals

1. Provide for common use of water for the maximum benefit to people through the established statutes and regulations related to water management.
2. Protect riparian habitat, breeding areas, lakeshores and river corridors for fish and wildlife and recreational uses.
3. Assure water quality is maintained.

Objectives

The overall management intent for water, wetlands, and waterbodies (including lakeshores and stream corridors) is to maintain and protect riparian zones, water quality, lake shorelines, and riverbanks while allowing for multiple use of the resources. Public access to public waters should be maintained.

Management Guidelines

1. Water Quality

Water quality shall be maintained in streams, stream segments, wetlands, and waterbodies occurring in the Moose Range and JPUA as required by existing law.

2. Riparian Areas

a. Review Required. Any habitat enhancement activity altering the habitat/vegetation within the riparian zone shall require concurrence by DNR and ADF&G and other appropriate state and federal agencies as necessary, subject to existing laws.
b. Coal Mining Requirements. Coal mining activities that are approved and occur within riparian zones will follow existing procedures established in ASCMCRA, as well as the guidelines in this plan.

c. Interagency Review. Mining for other leasable minerals and activities associated with mining for locatable minerals require interagency review of the land use permits and leasing authorizations prior to approval.

3. Riparian Buffers

To protect water quality, riparian habitat, and recreational values, a buffer of essentially undisturbed land and vegetation should be protected along anadromous waterbodies and high value fish streams.

a. Anadromous Waterbodies. The buffer area should be 150 feet on both sides of the ordinary high-water mark and shall include all adjacent riparian zones. In the case of coal development, the buffer will follow existing standards in the Alaska Surface Coal Mining Control and Reclamation Act (AS27.21) and will require a minimum 100-foot setback. In the case of forestry activities, the buffer will follow existing requirements of FRPA and will require a minimum 150-foot setback on each side on all anadromous waterbodies.
b. Activities Allowed in Riparian Buffers.
    i. Selective tree cutting as approved by DNR in consultation with ADF&G.
    ii. Disease, insect, and invasive species control and prevention with pesticides or herbicides as approved by ADF&G, DNR, and DEC.
    iii. Road and trail access to and along[5] and/or across streams for recreation or habitat enhancement purposes as approved by ADF&G and DNR.
    iv. DNR, in consultation with ADF&G may authorize recreational trail development within stream buffers.
    v. Access to and/or across streams for utility lines such as powerlines and waterlines, etc. should not be located parallel to stream systems; rather they should cross streams in a perpendicular fashion to the extent feasible and prudent.

4. Freshwater Waterbodies Buffers

a. Freshwater Lakes. Buffer widths for non-anadromous lakes are set at 100' landward of the lake's ordinary high-water mark.
b. Perennial Streams. For perennial streams not known to have anadromous fish, but which are identified on a USGS 1 to 63,360 topographic map or field verified by ADF&G and DNR, the buffer should be 100 feet wide on both sides of the ordinary high-water mark and shall encompass the adjacent riparian zones.
c. Activities Allowed. Activities allowed within freshwater waterbody buffers include the following:
    i. Selective tree cutting as approved by DNR in consultation with ADF&G.
    ii. DNR may authorize recreation facility development in consultation with ADF&G.
    iii. Disease, insect, and invasive species control and prevention with pesticides or herbicides as approved by ADF&G, DNR, and DEC.

[5] Public Access to and Along all navigable waters or public waters as determined under 11 AAC 51.035. See also 11 AAC 51.045 for easements.

iv. Road and trail access to and along[6] and/or across streams for recreation or habitat enhancement purposes as approved by ADF&G and DNR.
v. Access to lakes for utility lines such as powerlines and waterlines, etc. as approved by ADF&G and DNR. Utility systems should not be located so that they parallel lakeshores.

5. Wetlands

a. Protection. All wetlands shall be preserved within the Moose Range and JPUA according to existing state and federal laws. Habitat enhancement efforts in wetlands require interagency review, concurrence by DNR and ADF&G, and should follow the Moose Range and JPUA guidelines.
b. Wetland Buffers. Buffer widths for all wetlands are set at 100' landward of the wetland edge.
c. Access. Access through wetland buffers and wetlands should be allowed only on winter ice roads for recreation, habitat enhancement, forest product harvest, and other activities as approved by ADF&G and DNR.
d. Activities Allowed. Activities allowed within wetland buffers include the following:
    i. Selective tree cutting as approved by DNR in consultation with ADF&G.
    ii. Disease, insect, and invasive species control and prevention with pesticides or herbicides as approved by ADF&G, DNR and DEC.
    iii. Recreation facilities such as docks and boardwalks that do not require fill.
    iv. Access to wetlands for utility lines such as powerlines and waterlines, etc. as approved by ADF&G and DNR. Utility systems should not be located so that they parallel wetlands.

[6] Public Access to and Along all navigable waters or public waters as determined under 11 AAC 51.035. See also 11 AAC 51.045 for easements.

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