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U.S. Department of the Interior
Bureau of Land Management

Summary Fortymile Subunit

Eastern Interior Draft Resource Management Plan and Environmental Impact Statement

February 2012

PREPARING OFFICE

U.S. Department of the Interior
Bureau of Land Management
Eastern Interior Field Office
Fairbanks, AK

Summary Fortymile Subunit: Eastern Interior Draft Resource Management Plan and Environmental Impact Statement

United States Department of Interior
Bureau of Land Management-Alaska
Eastern Interior Field Office
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Table of Contents

Dear Reader ..... **v**

1. Introduction **1**

1.1. Purpose and Need 1
1.2. Description of the Fortymile Subunit 1
1.3. The BLM Planning Process 1
1.4. Resources in the Fortymile Subunit 2
1.5. Use of the Fortymile Subunit 6

2. Alternatives **10**

2.1. Summary of the Alternatives 11
2.2. Alternative A (No Action) 17
2.3. Decisions Common to Alternatives B, C, and D 19
2.4. Alternative B 30
2.5. Alternative C 34
2.6. Alternative D 38
2.7. Required Operating Procedures and Leasing Stipulations 42
2.7.1. Required Operating Procedures 43
2.7.2. Fluid Mineral Leasing Stipulations 54
2.8. Comparison of Impacts 55

Acronyms and Glossary **69**

Bibliography **72**

Appendix A. Maps **74**

List of Tables

Table 2.1. Fortymile Subunit Summary of Alternatives 14
Table 2.2. Recreation Setting Decision Matrix for the Eastern Interior Planning Area 26
Table 2.3. Fortymile Recreation and Travel Management Zones, Alternative B 31
Table 2.4. Fortymile Recreation and Travel Management Zones, Alternative C 35
Table 2.5. Fortymile Recreation and Travel Management Zones, Alternative D 40
Table 2.6. Fluid Mineral Leasing Stipulations 54
Table 2.7. Fortymile Subunit: Comparison of Impacts 56

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TAKE PRIDE IN AMERICA

MAR 14 2012

In Reply Refer To:
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Dear Reader:

The draft Eastern Interior Resource Management Plan/Environmental Impact Statement (RMP/EIS) was released on Feb. 24, 2012. To help the public in reviewing this large document, the Bureau of Land Management (BLM) has developed executive summaries that describe proposed management for each subunit. These summaries can be found at: http://www.blm.gov/ak/st/en.html.

During the Scoping Phase of the development of the Eastern Interior Resource Management Plan/Environmental Impact Statement (RMP/EIS), many people expressed concern about the size of the planning area, which covers approximately 6.7 million acres. They pointed out that issues vary in importance from one part of the planning area to another. This was one of the reasons that the BLM split the planning area into four subunits: Fortymile, Steese, Upper Black River, and White Mountains. These executive summaries leave out the fine details of the RMP, but they should help you learn:

- why we are planning for this area;
- the most important resources in the area and how people use them;
- the major decisions under consideration; and
- the impacts that may occur with each of the alternatives under consideration.

This document is a draft because we are still in the process of choosing the best plan. We appreciate and need your comments. Let us know if there are inaccuracies or new information we should consider. Describe why you think one option is better than another. Please send your comments to us before the end of the official comment period. The comment period extends from Feb. 24 to July 23, 2012.

There are three ways you can submit comments:

1) Public meetings will be held in communities within the planning area to discuss the Draft RMP/EIS before the close of the comment period. We will announce the meeting dates, times, and specific locations through news releases and on the Eastern Interior RMP website at: http://www.blm.gov/ak.
2) You can send written comments to the BLM Fairbanks District Office, Attn: Eastern Interior Draft RMP/EIS, 1150 University Avenue, Fairbanks, Alaska, 99709.

3) Written comments may also be submitted online at https://www.blm.gov/epl-front-office/eplanning/lup/lup_register.do.

The entire Draft RMP/EIS is online at http://www.blm.gov/ak. Just click on the link for the Eastern Interior RMP/EIS website under "In the Spotlight." For a hard copy of the draft RMP/EIS document and for additional information or clarification regarding the summaries, Draft RMP/EIS, or the planning process, please contact Jeanie Cole, Planning and Environmental Coordinator or Lenore Heppler, Field Manager at (907) 474-2200.

We appreciate your help in this planning effort and look forward to your interest and participation.

Sincerely

Bud C. Cribley
State Director

Chapter 1. Introduction

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1.1. Purpose and Need

Why Are We Doing This Plan?

The Eastern Interior Resource Management Plan (RMP) will determine the appropriate management of the Bureau of Land Management (BLM) lands in the Eastern Interior Planning Area, including the Fortymile Subunit. The Draft RMP addresses three questions:

1. What protections and management should be implemented for resources such as fish, wildlife, vegetation, soils, and water within the subunit?
2. What types and levels of use, such as recreation, off-highway vehicle use, and mining, should be allowed and what lands should be available for these uses?
3. Should any areas be designated as wild and scenic rivers or areas of critical environmental concern?

These questions are important because the BLM is required to develop land use plans and manage its lands for multiple-use by the Federal Land Policy and Management Act (FLPMA). The current plan for the Fortymile Subunit, the Fortymile Management Framework Plan, is 30 years old and does not meet the BLM planning requirements. Development of the Eastern Interior RMP will allow the BLM to meet its requirements under FLPMA.

1.2. Description of the Fortymile Subunit

What Lands Are We Planning For?

The Fortymile Subunit is bounded on the north by the Yukon-Charley Rivers National Preserve and the Steese National Conservation Area, on the east by the U.S.-Canadian border, on the south by the BLM's Glennallen Field Office boundary and the Alaska Highway, and on the west by the Richardson and Elliott highways. Within the subunit, the BLM lands consist of the Fortymile Wild and Scenic River (WSR), relatively large blocks of BLM lands within the Fortymile watershed, and scattered parcels along the highways. Other federal lands within the subunit include the Yukon-Charley Rivers National Preserve and the Tetlin National Wildlife Refuge. Much of the subunit is state land. Private lands are located around several communities including Fairbanks, Fox, Delta Junction, Dot Lake, Tanacross, Tok, Tetlin, Northway, Chicken, and Eagle. Doyon, Limited, a regional Native corporation, also owns large blocks of land within the subunit. The Alaska, Taylor, and Top of the World highways cross the subunit. Other than some segments of the Fortymile River, there is little BLM-managed land near the highways (Map 2).

This subunit is about 15.8 million acres in size, with approximately 2.1 million acres managed by the BLM. Approximately 1,660,000 acres within the subunit are either State- or Native-selected. Of this, approximately 785,000 are high priority selections and are very likely to be conveyed out of federal management.

1.3. The BLM Planning Process

What Happens Next?

The BLM's planning process involves nine major steps. We are on step seven, which is to publish the Draft RMP/EIS for public comment. After the public comment period closes, the BLM

will review all the comments received. The Draft RMP/EIS will be revised as needed, taking public comments into account. Then the Eastern Interior Proposed RMP and Final EIS will be published. The Proposed RMP may be protested to the Director of the BLM and is also reviewed by the State of Alaska for consistency with state programs. After any protests are resolved and the consistency review is completed, the Approved RMP and Record of Decision will be published. Once the Record of Decision for the Fortymile Subunit is published, decisions in the Approved RMP will be implemented.

1.4. Resources in the Fortymile Subunit

What Resources Are in the Subunit?

There are far too many resources in the subunit to describe them all in this summary. A few of the resources addressed by the RMP include wildlife, minerals, and recreation.

Wildlife

Moose

Moose occur throughout the Fortymile subunit at elevations below about 3,000 feet. During fall and early winter, mid- to high-elevation shrub and open spruce habitats support higher densities of moose, along with recently burned (10 to 30 years) habitats. During the winter, moose tend to concentrate at lower elevations and especially along creeks and rivers. In summer, moose are widely dispersed and pregnant cows often travel to low-elevation areas with abundant wetlands for calving and summer.

In Game Management Unit 20(E) moose populations were high in the 1950s and early 1960s, reaching a minimum of 12,000 moose following federal predator control. Current moose numbers in Game Management Unit 20(E) (2006) are estimated at 3,600–5,200 moose or 0.45-0.64 moose/mi^2. Harvest is limited by lack of access and bull:cow ratios are generally high (above 40 bulls:100 cows; Gross 2008). Unit 20(E) has been designated by the Alaska Board of Game as an Intensive Management Area, meaning it is designated as important for providing high harvest for human consumptive uses. Population and harvest objectives have been set accordingly and predator control has been implemented in a portion of the area.

Caribou

The Fortymile caribou herd range is centered in the Eastern Interior Planning Area and is the most important herd to residents of Interior Alaska. It is also a herd of statewide and international importance. The historic range of the herd is thought to have once included almost the entire planning area, with the exception of the northern portion of the Upper Black River Subunit, and extended to Whitehorse, Yukon Territory.

During the 1920s the Fortymile caribou herd (then known as the Steese-Fortymile caribou herd) was the largest herd in Alaska and was one of the largest in the world, estimated at over 500,000 caribou (Murie 1935). The herd declined during the 1930s to an estimated 10,000–20,000 caribou. By the 1950s the herd had increased to an estimated 50,000 caribou, with population estimates fluctuating around this number through the early 1960s. Between the mid 1960s and mid 1970s, the population experienced a significant decline, reaching a low in 1973–1976 of an estimated 5,740-8,610 caribou (Gross 2007). During this decline, the Fortymile herd reduced range size and changed seasonal migration patterns. By the early 1960s, the herd stopped crossing the Steese

Highway in significant numbers, and by the early 1970s, few Fortymile caribou continued to move annually into Yukon Territory, Canada. Since the early 1970s, the herd's range (Map 90) has remained about 19,300 mi^2 (50,000 km^2), less than twenty-five percent of the range thought to have been used by the herd during the 1920s (Gross 2007).

Between 1990 and 1995, the herd remained relatively stable at about 22,000 caribou. During 1996-2002, following implementation of the Fortymile Caribou Herd Management Plan and during a period of favorable weather conditions, the herd doubled in size, peaking at 44,100 animals in 2003. Over the next few years, the herd growth stopped and the population declined slightly. The estimated pre-calving population in May 2007 was 41,400 caribou (Gross 2007) and 39,000 in 2008 (J. Gross pers. comm.). The Alaska Board of Game expanded the Upper Yukon-Tanana Predation Control Area to include most of the Fortymile herd's range to initiate an increase in the herd and aid in achieving the population objective of 50,000–100,000 caribou, with a harvest objective of 1,000–15,000 caribou (Gross 2007). In the last five to 10 years, the herd has expanded its range into more of the traditional range, likely as a result of an increasing population but also possibly due to recent large fires.

Generally high calf weights and high pregnancy and birth rates indicate that nutritional status of the Fortymile caribou herd is moderate to high and range is in good condition (Boertje and Gardner 2000). Although weather conditions cause fluctuations in population growth, predation has been a major factor in limiting recovery of caribou (Boertje and Gardner 2000). Predator control is currently being used by ADF&G to improve growth rates of the Fortymile herd. The predator control area includes the Fortymile WSR Corridor, and other scattered BLM lands in the Fortymile Subunit. Habitat conditions and availability will determine the limits to growth of the herd. The habitat across most of the herd's range is largely intact, with a very small proportion (likely less than one percent) of the range impacted by surface-disturbing activities. Potential activities that may limit habitat quantity and quality include: large mining operations with associated access; road and trail density; human disturbance from OHVs (including snowmobiles) or aircraft; and increasing fire frequency.

Dall Sheep

Dall sheep occur in the planning area primarily in the Yukon-Tanana Uplands (Map 91). These populations are somewhat unique in that they occupy uncharacteristically low-elevation habitats in areas of often rounded topography. In this area, it is not uncommon to see Dall sheep in low shrub or open forest habitat, especially in areas near river bluffs and low-elevation mineral licks. Sheep populations occur in relatively low-density and in scattered areas of suitable habitat in the Yukon-Tanana Uplands.

In the Fortymile Subunit, Dall sheep populations inhabit the BLM-managed lands in the Glacier Mountain and Mount Harper areas and in upper Granite Creek, on the east border of Yukon-Charley Rivers National Preserve. In the Glacier Mountain area, which is designated as a controlled use area under state hunting regulations, prohibiting use of motorized vehicles, an average of 87 sheep have been counted in surveys between 1998 and 2002. The Mount Harper area is managed as a drawing permit hunt area and an average of 74 sheep have been counted there in aerial surveys in 1997-2002 (Parker McNeill 2005).

An average of 309 sheep were counted in aerial surveys from 1997–2002 in the Yukon-Charley Rivers National Preserve, including small numbers that utilize BLM lands near Mount 5580 in south Steese National Conservation Area and headwaters of Granite Creek (Lawler et al. 2005). Thus, the average Yukon-Tanana Uplands sheep population observed in aerial surveys

(1997–2002) was about 1,200. Seventy-four percent (893) of this population was dependent on BLM lands. This will decrease somewhat if lands around Mt. Harper and Glacier Mountain are conveyed.

Although their exact role in individual and population health is not known, mineral licks are typically considered crucial habitats for mountain sheep. There are mineral licks identified in the Fortymile Subunit for sheep (as well as caribou and moose).

The habitat across most of the herd's range is largely intact and undisturbed. Most sheep habitat in the planning area is remote from roads and access, except by small plane or boat is limited. Winter motorized vehicle usage is currently limited in Dall Sheep habitat by remoteness and rough and rocky terrain. There may be areas of low-elevation habitat that in the future could receive snowmobile use at levels that may affect sheep use of those habitats. The remote Mount Harper and Glacier Mountain areas in the Fortymile Subunit could see increased access if roads are developed to access lands being conveyed to the State of Alaska and Native corporations.

Leasable Minerals

Leasable minerals, defined by the Mineral Leasing Act, include coal, oil shale, native asphalt, phosphate, sodium, potash, potassium, sulfur, oil, gas, coalbed natural gas, and geothermal resources. Exploration and production of these minerals on BLM lands may only occur on leases acquired by competitive leasing. Although there are occurrences of oil and gas in the Fortymile Subunit, the potential for these minerals is low (Map 96). No leasing of oil, gas, or coal is expected to occur over the life of this RMP.

The Eagle Coal Field includes 392,500 acres on the southern bank of the Yukon River. The coal is ranked as subbituminous C and lignite, and occurs in seams less than five feet thick (Merritt 1987). Exploration in the early 1900s resulted in the extraction of approximately 2,000 short tons. The mined coal was sledded to various communities along the Yukon River and was used in river steamers or transported to the Dawson market (Collier 1903). Despite the large deposits of coal, there is low potential for development due to the lack of infrastructure.

The Chicken Coal District is located 50 miles south of the Eagle Field on a tributary to the South Fork of the Fortymile River. The Chicken District's most notable coal feature is a 22-foot thick subbituminous seam that dips to near vertical in an outcrop (Merritt 1987). Coal mining did not occur here until the 1930s when a shaft was opened into the larger coal bed. The coal was used locally in placer mining operations (Merritt 1986). There is currently no coal being produced from the district. The low grade coal and limited size of the district make it unattractive for large-scale development.

Locatable Minerals

Locatable minerals are minerals for which the right to explore, develop and extract mineral resources is established by the staking of mining claims under the General Mining Law of 1872, including gold, silver and copper. The Fortymile Subunit is currently closed to the staking of new federal mining claims. There are, however, 10,000 acres of existing federal mining claims.

Gold was discovered in 1887 on Franklin Creek, a tributary of the Fortymile River. Gold has been continually mined in the region since. There are areas with medium to high potential for the occurrence of locatable minerals in the Fortymile Subunit (Map 97). Much of the high potential areas are on State of Alaska or Native corporation lands, or on lands that are selected by Native

corporations. The BLM lands with high potential that are not selected, include portions of the Fortymile WSR Corridor near the community of Chicken.

The Eastern Interior Planning Area includes all or portions of 13 mining districts (Ransome and Kerns 1954). The Circle, Tolovana, Eagle, Fortymile, and Fairbanks districts are classified as major gold producing districts, with the Fairbanks district being the largest producer in Alaska (Nokleberg 1993). The planning area boundary bisects the Fairbanks mining district; three quarters of the gold production of the district occurs within the planning area. In total the Fairbanks District produced 13 million troy ounces of gold, with 8.3 million from placer and 4.7 million from hard rock sources. About 11.2 million ounces of gold have been produced in the planning area since 2007. The Tolovana, Eagle, Fortymile, and Circle mining districts contributed a combined total of about 1.7 million ounces of gold, as of 2007.

The Fortymile Subunit has areas of medium to high potential for locatable minerals. If these areas were opened to allow for the staking of new mining claims, as considered in some alternatives of the Draft RMP/EIS, additional placer mining and suction dredging would likely occur on some BLM lands.

The Fortymile Wild and Scenic River

On December 2, 1980, the Alaska National Interest Lands Act (ANILCA, P.L. 96-487) established the Fortymile River, and certain tributaries, as a wild and scenic river (WSR). ANILCA also directed the Secretary of the Interior to establish detailed boundaries and prepare a management plan. The detailed boundaries of the Fortymile WSR were set forth by the Fortymile River Management Plan in 1983 (BLM 1983). There are approximately 249,000 acres within the Fortymile WSR Corridor (Map 111). Segments of the Fortymile River are classified as "wild," "scenic," and "recreational."

The four objectives for recreation management in the Fortymile River Management Plan are: (1) to provide high-quality recreational opportunities associated with a free-flowing river for present and future generations; (2) to provide recreational use of fish and wildlife resources, including hunting and fishing within the framework of appropriate federal and state laws; (3) to provide for a level of utilization of land and water resources which will leave the existing environment unimpaired for the use and enjoyment of future generations; and, (4) to provide a variety of opportunities for interpretive, scientific, educational, and wildlands oriented uses.

The Wild and Scenic Rivers Act states that "Each component of the National Wild and Scenic Rivers System shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values." These values are commonly referred to as "outstandingly remarkable values."

Outstandingly remarkable values (ORVs) are defined as those characteristics that make the river worthy of special protection. These can include scenery, recreation, fish and wildlife, geology, history, culture, and other similar values. ORVs are typically identified in a study prior to the designation of a wild and scenic river, but the Fortymile WSR was designated by ANILCA without these specific values identified by Congress. In these cases, managers typically develop ORVs from study reports and other documentation of management activities and intentions, as well as incorporating current data and expertise. The ORVs for the Fortymile WSR will be determined through this planning process. To see a full description of the process used to

determine ORVs, see Appendix E of the Eastern Interior Draft Resource Management Plan and Environmental Impact Statement (BLM 2012).

1.5. Use of the Fortymile Subunit

How Are People Using the Land Now?

The primary uses occurring in the Fortymile Subunit are recreation, subsistence, and mining.

Recreation

BLM lands in the Fortymile Subunit offer many outdoor recreation opportunities including boating, camping, fishing, hiking, hobby mineral collecting, and off-highway vehicle use. The presence of migratory and resident wildlife provides opportunities for recreational hunting, trapping, photography, and wildlife viewing. Most of the recreational use occurs along the Taylor Highway where there is access to the Fortymile WSR and where the BLM maintains waysides and campgrounds. Developed recreation sites within the subunit include: the Mount Fairplay, Logging Cabin Creek, Mosquito Fork, South Fork, Fortymile, and Davis Dome waysides, West Fork, Walker Fork, and Eagle campgrounds, Mosquito Fork Overlook, and Fort Egbert National Historic Landmark.

Although most visitors to the Fortymile Subunit are Alaska residents, an increasing number are from national and international locations. Visitors come to the region from all over the U.S. and abroad. The most common out-of-state visitor are those who travel the Taylor Highway. Their use is most commonly reserved to the activities of camping, fishing, hiking and backpacking, photography, and wildlife viewing. Most non-resident visitor use occurs from May to September.

Resident users of the Fortymile Subunit include two primary groups: year-round and seasonal occupants. Although it is estimated that less than 150 people reside year-round in the Alaskan basin (U.S. side of the Fortymile region), the BLM lands are often used as "backyard" recreation areas by local residents. The communities of Chicken and Eagle are located directly adjacent to BLM lands, providing year-round access to recreational opportunities. Recreational use increases during the summer, due to an influx of seasonal residents. The Fortymile WSR (Map 111) receives an estimated 90,000 visits per year, according to the BLM's Recreation Management Information System.

Subsistence Use

Subsistence is an important use occurring in the Fortymile Subunit. Ten communities in the subunit including Healy Lake, Delta Junction, Dot Lake, Tanacross, Tok, Tetlin, Northway, Eagle, village of Eagle, and Chicken qualify as rural for subsistence use. Residents of many other rural areas and villages also have preference for subsistence uses in the Eastern Interior Planning Area. Wage employment opportunities are very limited in most villages (Caulfield 1983, Martin 1983). Therefore, dependence on wild resources for food, shelter, and clothing is extremely high.

In some areas, there is little federal land within reasonable hunting, trapping or fishing distance of some communities. For example, Dot Lake, Tok, Tanacross, and Delta Junction residents must travel up to 100 miles to reach areas where Federal Subsistence Management Regulations apply. Rural residents can harvest fish and wildlife under state hunting and fishing regulations, but are not allowed a preference for these over other residents of the state.

Subsistence use patterns vary widely and patterns of use have changed over time as the use of seasonally occupied camps has diminished. During the mid-20th century centralization of communities began to occur with advances in transportation technology (USFWS 2010), economic advantages of access to new roads, and compulsory school attendance (Martin 1983, Caulfield 1983, Marcotte 1991, Halpin 1987). State and federal hunting regulations have contributed to further changes in seasonal rounds by creating open and closed seasons for harvest of fish and wildlife resources. Rural residents continue to harvest fish, wildlife, and vegetation resources as a major part of their diet. Seasonal rounds are affected by weather, regulations, condition of animals, and resource availability.

Limited data is available on places or areas significant to and for subsistence use. ADF&G, Division of Subsistence has conducted studies investigating patterns of use, such as seasonal cycles, use areas and resources harvested. Other agencies and organizations have collected similar data or developed maps of subsistence use areas for specific areas or purposes. Many of these maps were developed during preparation of technical reports by the ADF&G and represent a snapshot of use areas during a specific time or may represent historic use areas. Resource distribution and subsistence use areas change over time and maps included with this document are viewed as the minimum use areas. The following paragraphs discuss subsistence use areas for those communities where it was available.

Eagle/Eagle Village: Caulfield (1979) describes subsistence use areas both historically (1847-1970) and from 1970 through 1977 for Eagle and Eagle Village. Eagle is located on the Yukon River, 12 miles downstream from the Alaska border with Yukon Territory, Canada. Eagle Village is three miles upriver from Eagle. Eagle and Eagle Village are largely surrounded by Native corporation and state lands. Caribou, moose and salmon have been documented as the major subsistence resources for these villages (Map 100 and Map 101).

In 1977 when Caulfield (1979) collected subsistence use data for Eagle Village, residents were predominantly Han Athabascan with kin ties to Peel River Kutchin. Elders said that the village was established there because of nearby fishing eddies and access to abundant caribou. As early as the 20th century, the Han spent winters trapping in the Fortymile River, as well as other areas. The American Summit area has been and continues to be a significant area for harvest of caribou from the Fortymile herd by residents of Eagle and Eagle Village. Caulfield (1979) documents the importance of the Taylor Highway for gaining access to caribou hunting along American Summit. The BLM manages little land in the American Summit area. Sheep hunting by villages in the Glacier Peaks area west of Eagle has been documented by Caulfield (1979). This area is currently state-selected or state-managed. High priority States-selected lands will likely be conveyed to the state during the life of the plan.

Eagle was established in the late 1800s to support gold rush activities in the area and became a judicial, commercial, mining, and military center for the Upper Yukon region. Caulfield (1979) reports that about half the residents in Eagle participated in subsistence use activities. Most subsistence resource use consisted of cutting firewood, fishing for salmon, hunting moose, bear or sheep and running traplines. Use areas identified by residents of Eagle are similar to those used by Eagle Village.

Dot Lake: Dot Lake is located off the Alaska Highway between Delta Junction and Tok. The site was originally used as a winter trapping camp by Upper Tanana region Athabascans. A construction camp for crews constructing the Alaska Highway was built at Dot Lake during the early 1940s. The first permanent settling was in 1946, followed by other Athabaskan families

from around the area. Abundant local resources, the church and school, and economic advantages of being located on the highway were reported as the draw to settle at Dot Lake (Martin 1983). It is likely that residents of Dot Lake currently participate in harvest of Fortymile caribou and other subsistence resources on BLM lands in the Fortymile Subunit (Map 100 and Map 101).

Tanacross: Tanacross is located 12 miles northwest of Tok and is surrounded by state and Native corporation lands. Residents of the area of present-day Tanacross began settling seasonally at the original site (Tanana Crossing) in 1902 when the military telegraph line from Fort Egbert (Eagle) to Fort Liscum (Valdez) was built and a maintenance station was established at Tanana Crossing (Marcotte 1991). By 1939, Natives from the Mansfield and Ketchumstuk area permanently settled at the Tanana Crossing site. In 1943, a tribal council was formed by the village under the Indian Reorganization Act. Due to periodic flooding of the river on the north bank and the better access to the highway on the south bank, the village was relocated directly across the Tanana River in the early 1970s. BLM lands in the Fortymile Subunit, including both remote lands and those accessible from the Taylor Highway, are important to residents of Tanacross for the harvest of moose, caribou, waterfowl, bear, and berry picking and trapping.

Tok: Tok is located on the Alaska Highway, 92 miles from the Alaska border with Yukon Territory, Canada. Tok originated as a camp for crews constructing the Alaska and Glenn highways in 1942 and was established as a townsite in 1946. Tok became a transportation hub and regional center. BLM lands in the Fortymile Subunit are important to for subsistence use by residents of this community. Residents harvest bear, caribou small game, and moose and many operate extensive trap lines in the Fortymile area (Marcotte 1991).

Tetlin: The current site of Tetlin became a settlement for the Tetlin and Last Tetlin Band in the late 1920s (Marcotte 1991). The village is located at the junction of the Taylor and Alaska highways. Unpublished data from the ADF&G indicates that the Tetlin subsistence use area includes large portions of the area accessible from the Taylor Highway and the Mosquito Flats, which includes BLM lands.

Northway: Northway is located on the Nabesna River 55 miles southeast of Tok. Access to the community is off the Alaska Highway. People of the Nabesna and Chisana river areas began settling in the area in the 1940s when a post office, state school and a Federal Aviation Administration and airport station were established at the current town site. BLM lands in the Fortymile Subunit are within the contemporary subsistence use area for residents of the Northway community. Case (1986) documents that residents harvest caribou, moose, vegetation and timber resources, and trap in this area.

Mining

Mining is a current use of some of the public lands within the Fortymile Subunit. Most BLM lands are closed to new mineral entry due to withdrawals or segregations imposed by land selections. Mining on BLM lands currently consists of small (less than five acres) to large placer mines (five to 20 acres) and suction dredging operations.

There are 236 placer gold occurrences existing in the Eastern Interior Planning Area, with about 35 currently active. There are 81 separate companies or individuals that are estimated to be producing gold in the planning area (Szumigala et al. 2008). Placer mining is occurring on both federal and state mining claims in the Fortymile Subunit.

Suction dredging is ongoing on both federal and state land. Over the past seven years the number of suction dredging operations permitted by both the BLM and the state has remained relatively constant despite the price of gold increasing an average of $100 per year for the same period. In 2008 there were seven suction dredging operations on BLM lands in the planning area.

The Pogo Mine, on state land in the Fortymile Subunit, has been in production since 2006. It has produced 373,000 ounces of gold (Szumigala et al. 2008), with three million ounces still in reserves. The mine is 38 miles northeast of Delta Junction, and is accessed by a road from the Richardson Highway. The life of the mine is estimated to be 10 years (online at http:\\www.dnr.alaska.gov/mlw/mining/largemine/pogo). The total footprint of the mine is about 1,185 acres, including the access road and powerline.

Chapter 2. Alternatives

What Decisions Will the RMP Make?

The Eastern Interior Draft RMP will make decisions on a wide variety of resources and resource uses including: management of fish and wildlife habitats, management of recreation, off-highway vehicles and access, and management of mineral resources.

The Draft RMP include four alternatives. These are the No Action Alternative (Alternative A) and three action alternatives (Alternatives B, C, and D). Many of the decisions are the same in more than one alternative. Other decisions vary between alternatives.

Federal agencies often identify an Preferred Alternative in the Draft RMP. The BLM has identified Alternative C as the Agency Preferred Alternative. The plan adopted for the Approved RMP may be one of the alternatives presented in the Draft RMP, or it may be created by combining portions of the four alternatives into the selected management option.

What Decisions Are Included in This Document?

The Draft RMP makes too many decisions to list them all in this summary. Only major decisions or those likely to be of most interest are included in the following sections. This summary focuses on allocation decisions. Allocation decisions are those that determine what use can occur on which lands. For example, describing what areas will be closed to mining or off-road vehicles.

Decisions on management of Air Resources, Cultural and Paleontological Resources, Cave and Karst Resources, Forest and Woodland Products, Hazardous Materials, Non-native Invasive Species, Salable Minerals, Soil Resources, Special Status Species, Visual Resource Management, Water Resources, and Wildland Fire are not included in this summary. Additionally, not all decisions applying to Fish, Wildlife, Vegetative Resources, Lands and Realty, Minerals, Recreation, and Special Designations are included. Only the major decisions or allocation decisions are included.

To see all the decisions that apply to the Fortymile Subunit, see the Eastern Interior Draft Resource Management Plan and Environmental Impact Statement (BLM 2012).

2.1. Summary of the Alternatives

Alternative A, No Action Alternative

Alternative A would continue present management practices and present levels of resource use. Proposed activities would be analyzed on a project-specific basis and few uses would be excluded as long as they were consistent with state and federal laws. One exception to this would be mineral leasing and new mining claims. There would be no new oil and gas leases or mining claims as the lands would remain withdrawn from these types of activities. Other than within the Fortymile Wild and Scenic River (WSR) corridor and on BLM lands near Eagle, the subunit would be managed for dispersed recreation.

Use of off-highway vehicles (OHVs) exceeding 1,500 pounds is prohibited off established and maintained roads within the Fortymile WSR Corridor. Outside the corridor, all areas remain open to winter use (ground frozen to six inches) for vehicles weighing 6,000 pounds or less. Existing roads and trails are open to all vehicles when the ground is frozen to a depth of six inches or more. At all other times of the year, vehicles exceeding 6,000 pounds require a permit, and vehicles

weighing 6,000 pounds or less are limited to existing roads or trails except for incidental use. The existing trail network, however, has never been identified.

No new special designations such as areas of critical environmental concern (ACECs) would be considered. There would be no suitability determinations for wild and scenic rivers. There would be no decisions to manage certain lands to preserve wilderness characteristics, although existing management would preserve wilderness characteristics in many areas.

Alternative B

Forty-seven percent of the subunit would be recommended open to new mining claims and mineral leasing. The Fortymile WSR Corridor would be closed to new federal mining claims. Long-term camping associated with mining on state claims would not be allowed on BLM lands within the Fortymile WSR Corridor.

OHVs would be limited by weight and season of use. Approximately 618,000 acres would be closed to summer OHV use, but open to winter snowmobile use. Summer use of OHVs would be limited to existing routes on approximately 1.5 million acres. Cross-country winter snowmobile use would be allowed in all areas. Recreation management activities would be focused in the Fortymile Special Recreation Management Area (792,000 acres) that includes the Fortymile WSR Corridor and adjacent lands. Recreation setting prescriptions would be assigned to the Special Recreation Management Area. These settings include Semi-Primitive, Backcountry, Middlecountry, Frontcountry, and Rural (Map 51). This alternative would have the most acres managed for Semi-Primitive and Backcountry settings.

Fortymile caribou herd calving/postcalving habitat would be designated as an ACEC (Map 62) and would be closed to mining. The Fortymile WSR Corridor and the Fortymile ACEC would be right-of-way avoidance areas. Two additional river segments, Dome Creek and Gold Run, would be recommended suitable for designation under the Wild and Scenic Rivers Act (Map 70). Eleven watersheds with the highest fish values would be identified as Riparian Conservation Areas. Outstandingly remarkable values would be identified for the Fortymile WSR. Approximately 994,000 acres would be managed to maintain wilderness characteristics.

Alternative C, Agency Preferred Alternative

Seventy-one percent of the subunit would be recommended open to new mining claims and mineral leasing. The Fortymile WSR Corridor would be closed to new mining claims. Long-term camping associated with state mining claims would be allowed in the in the “scenic” and “recreational” segments of the Fortymile WSR, but not the “wild” segments.

OHVs would be limited by weight and season of use. Approximately 121,000 acres would be closed to summer OHV use. Cross-country winter snowmobile use would be allowed in all areas. Summer use of OHVs would be limited to existing routes on approximately two million acres. Travel off existing trails could occur to retrieve legally harvested game. Recreation management activities would be focused in the Fortymile Special Recreation Management Area (249,000 acres) which has the same boundaries as the Fortymile WSR Corridor. Recreation setting prescriptions would be assigned to the Special Recreation Management Area. These settings include Semi-Primitive, Backcountry, Middlecountry, Frontcountry, and Rural (Map 52).

A portion of the Fortymile caribou herd calving/postcalving habitat would be designated as an ACEC (Map 63). The core of the ACEC would be closed to mining. Only one watershed would be identified as Riparian Conservation Area. Outstandingly remarkable values would be identified for the Fortymile WSR. Approximately 487,000 acres would be managed to maintain wilderness characteristics.

Alternative D

Ninety-two percent of the subunit would be recommended open to new mining claims and mineral leasing, including the "scenic" segment of the Fortymile WSR Corridor and a small part of the "recreational" segment (Wade Creek). Long-term camping associated with state mining claims would be allowed in all segments of the Fortymile WSR.

OHVs would be limited by weight and season of use. Approximately 54,000 acres would be closed to summer OHV use. Cross-country summer use of OHVs less than 1,500 pounds curb weight would be allowed on approximately two million acres. Cross-country winter snowmobile use would be allowed in all areas. Recreation management activities would be focused in the Fortymile Special Recreation Management Area (249,000 acres) which has the same boundaries as the Fortymile WSR Corridor. Recreation setting prescriptions would be assigned to the Special Recreation Management Area. These settings include Semi-Primitive, Backcountry, Middlecountry, Frontcountry, and Rural (Map 53). This alternative would manage the fewest acres for Semi-Primitive and Backcountry settings.

The Fortymile caribou herd calving/postcalving habitat (same area as Alternative C) would be designated as an ACEC (Map 64) but only the mineral licks would be closed to mining. Outstandingly remarkable values would be identified for the Fortymile WSR. Approximately 54,000 acres would be managed to maintain wilderness characteristics.

Summary Table

The following table summarizes major decisions that vary by alternative and those considered to be of most of interest to the reader. This allows you to compare the three alternatives. See also sections 2.3, 2.4, 2.5, and 2.6 of this summary for full text and additional decisions that do not vary by alternative.

Table 2.1. Fortymile Subunit Summary of Alternatives

Program or Resource	Alternative B	Alternative C	Alternative D
Fish and Aquatic Species	Manage 11 watersheds as Riparian Conservation Areas (RCAs) (Map 6).	Manage 1 watershed as a RCA (Map 7)	No watersheds would be managed as RCAs.
	Manage one watershed as a High Priority Restoration Watershed and emphasize active restoration (Maps 6 and 7).		
	Complete watershed assessments prior to opening areas to locatable mineral entry and location.	Complete watershed assessments as necessary for management.	
Wilderness Characteristics	Maintain wilderness characteristics on 994,000 acres (49 percent) (Map 74).	Maintain wilderness characteristics on 487,000 acres (24 percent) (Map 75).	Maintain wilderness characteristics on 54,000 acres (three percent) (Map 76).
Wildlife	The use of domestic goats, alpacas, llamas, and other similar species in conjunction with BLM-authorized activities would not be allowed in Dall sheep habitat.		
	Domestic sheep, goats, and camelids (includes alpaca and llama) are not allowed in Dall sheep habitat.	Not addressed.	
Lands and Realty	The Fortymile ACEC and Fortymile WSR Corridor would be right-of-way avoidance areas.	There would be no right-of-way avoidance areas.	
	Do not allow long-term camping for commercial purposes (such as camping in association with mining on state mining claims) in the "wild," "scenic," or "recreational" segments of the Fortymile WSR.	Allow long-term camping for commercial purposes in the "scenic" and "recreational" segments of the Fortymile WSR. This is the same as Alternative A.	Allow long-term camping for commercial purposes in the "wild," "scenic," and "recreational" segments of the Fortymile WSR.
Leasable Minerals	976,000 acres open to fluid and solid mineral leasing; 1,102,000 acres closed (Map 26).	1,468,000 acres open; 608,000 acres closed (Map 27).	1,918,000 acres open; 158,000 acres closed (Map 29)
	A decision on coal leasing is deferred. No coal leasing would occur without an amendment to this RMP.		
Locatable Minerals	976,000 acres open to locatable minerals; 1,100,000 acres closed (Map 26).	1,468,000 acres open; 608,000 acres closed (Map 28).	1,920,000 acres open; 156,000 acres closed (Map 30).
Recreation	Manage 792,000 acres as the Fortymile Special Recreation Management Area (SRMA). Establish Recreation Management Zones and Recreation setting character classes within the SRMA.	Manage 249,000 acres as the Fortymile SRMA. Establish Recreation Management Zones and Recreation setting character classes within the Special Recreation Management Area.	

Program or Resource	Alternative B	Alternative C	Alternative D
Travel Management	No summer OHV use on 618,000 acres (Semi-Primitive zones).	No summer OHV use on 121,000 acres (Semi-Primitive zones).	No summer OHV use on 54,000 acres (Semi-Primitive zones).
	Summer OHV use in the rest of the subunit (1,459,000 acres) limited to existing routes and vehicles weighing 1,500 pounds or less (Map 51).	Summer OHV use in the rest of the subunit (1,956,000 acres) limited to existing routes and vehicles weighing 1,500 pounds or less (Map 52)	Summer OHV use in the rest of the subunit (2,023,000 acres) limited to vehicles weighing 1,500 pounds or less (Map 53).
	Winter OHV use limited to snowmobiles weighing 1,000 pounds or less on the entire subunit (2,077,000 acres).		
	Motorboat use would be allowed without specific authorization in the Fortymile WSR. Airboats, hovercraft, and personal watercraft would not be permitted in the following non-navigable river segments: the North Fork above the Kink, the Middle Fork, Champion Creek, Joseph Creek, Mosquito Fork above Ingle Creek, and Gold Creek.	Motorboat use would be allowed without specific authorization in the Fortymile WSR. Airboats, hovercraft, and personal watercraft would not be permitted in the following non-navigable river segments: the North Fork above the Kink, the Middle Fork, Champion Creek, Joseph Creek, and Mosquito Fork above Ingle Creek.	
Withdrawals	Retain PLO 3432, Eagle Recreational withdrawal.	Modify PLO 3432 to allow expansion of Eagle gravel pit and to include Fort Egbert Historic Site.	Revoke PLO 3482 and make lands available for disposal.
	1,012,00 acres would be closed to locatable mineral entry in the Fortymile ACEC, ungulate mineral licks, WSR, and SRMA.	504,000 acres would be closed to locatable mineral entry in the core of the Fortymile ACEC, identified ungulate mineral licks, WSR, and SRMA.	51,000 acres would be closed to locatable mineral entry in the "wild" and "recreational" segments of the Fortymile WSR and identified ungulate mineral licks.
Areas of Critical Environmental Concern	Designate the Fortymile ACEC (732,000 acres) (Map 62).	Designate the Fortymile ACEC (Approximately 547,000 acres) (Map 63 and Map 64).	

Program or Resource	Alternative B	Alternative C	Alternative D
Wild and Scenic Rivers	Identify outstandingly remarkable values (ORVs) for the Fortymile WSR (Map 111).		
	ORVs for the Fortymile River would be: Franklin, Hutchinson, Napoleon, and Uhler creeks – historic; Joseph Creek, Logging Cabin Creek, and Mosquito Fork – scenic; Champion Creek – scenic and historic; O'Brien Creek and Walker Fork – scenic and geologic; West Fork – scenic and recreation; Wade Creek – recreation and historic; Dennison Fork and Middle Fork-scenic, recreation, and wildlife; Upper North Fork – scenic, historic and wildlife; Main Stem Fortymile, Lower North Fork, and South Fork – scenic, recreation, geologic, historic, and wildlife.		
	Gold Run (four miles) are recommended suitable for designation as a "wild" river under the Wild and Scenic Rivers Act (Map 70).	No rivers would be recommended as suitable for designation.	
	Dome Creek (five miles) recommended suitable for designation as a "recreational" river under the Wild and Scenic Rivers Act.	No rivers would be recommended as suitable for designation.	

2.2. Alternative A (No Action)

Under the No Action Alternative, management in the Fortymile Subunit is guided by the Fortymile Management Framework Plan (BLM 1980) and the Fortymile River Management Plan (BLM 1983a). Current management based on these plans and federal laws and regulations, is summarized below. A more complete description can be found in the Eastern Interior Draft Resource Management Plan and Environmental Impact Statement (BLM 2012).

Fish and Aquatic Species

The BLM considers actions which will affect fish habitat, and develops appropriate measures for each action to reduce impacts to fish. Measures to protect stream banks are applied at the project level. Human-caused disturbances are evaluated and stipulations are applied to minimize disturbance. The BLM coordinates with Alaska Department of Environmental Conservation on all proposed activities which involve discharges into surface waters, to ensure that activities permitted by the BLM do not exceed the State of Alaska Water Quality Standards.

Wildlife

The Fortymile Management Framework Plan (BLM 1980) identified and recognized sensitive areas important for Dall sheep, caribou, moose, bison, waterfowl, and shorebirds, sharp-tailed grouse, raptors, grizzly bears, and other species. Many of these areas have been conveyed out of BLM management or are not located in the Eastern Interior Planning Area. Mineral licks are recognized as an important habitat. Currently, all mineral licks on BLM lands are withdrawn from mineral entry. No domestic livestock grazing is authorized on Dall sheep ranges. No reindeer grazing is allowed on any caribou ranges.

Forest and Woodland Products

The BLM considers applications for forest and timber products on a project-specific basis. Personal use firewood harvest is authorized under Free Use Permits. No areas are specifically set aside for firewood harvest.

Lands and Realty

Permits for land use authorizations are considered when applications are received. There are no designated utility corridors or right-of-way avoidance areas. No lands are specifically identified for disposal or acquisition. The Eagle recreational site is withdrawn under Public Land Order 3432. Land status in the Fortymile Subunit has changed greatly since the Fortymile Management Framework Plan (BLM 1980) was approved. Many of the lands identified for specific management in the Management Framework Plan have been conveyed to either the State of Alaska or Native Corporations. Long-term camping for commercial purposes (i.e., camping in association with mining on state mining claims) is allowed by permit in the “scenic” and “recreational” segments of the Fortymile WSR.

Minerals

The entire Fortymile Subunit is withdrawn from mineral entry and mineral leasing under ANCSA 17(d)(1) withdrawals. Mining is occurring on valid existing claims that predate the withdrawals. Material sites are authorized to provide for construction and maintenance of roads and highways.

Recreation

Recreation management is focused on the Fortymile WSR Corridor and the Eagle area. Interpretive sites have been established at Fort Egbert and along the Taylor Highway. The BLM issues special recreation use permits as appropriate for commercial, competitive, and special events. Established campgrounds and waysides are maintained.

Travel Management

Fortymile WSR Corridor: No vehicular traffic is allowed off established trails. The use of motorized vehicles exceeding 1,500 pounds gross vehicle weight rating (GVWR) is prohibited off of established and maintained roads (BLM 1994).

The following restrictions/authorizations on surface transportation are included in the Fortymile River Management Plan (BLM 1983a):

Action 1.1: New transportation and utility systems, and relocations of existing roads may be authorized in the "scenic" and "recreational" segments of the corridor if there is no reasonable alternative route available.

Action 1.2: New public road rights-of-way and other authorizations for transportation and utility systems may be authorized in the "wild" segments of the river corridor if three conditions are met: 1) such system would be compatible with the purposes for which the unit was established; 2) there is no economically feasible and prudent alternative route for the system; and 3) authorization would be in the public interest.

Action 1.3: Access to mining claims located prior to ANILCA will be managed under 43 CFR 3809.

Action 1.5: Off-road vehicle use, other than vehicles of less than 1,500 pounds GVWR, will be prohibited without a permit or approved Plan of Operations.

Action 1.6: Existing use of motorized boats on “scenic” and “recreational” segments will be permitted without specific authorization. Motorized boats will not be permitted on non-navigable “wild” segments except under the provisions of 43 CFR 3809. On navigable “wild” segments, a cooperative agreement with the state will be sought to limit the use of motorized boats.

Actions 2.1–3: The BLM will not undertake maintenance of existing airstrips. New airstrips may be authorized in accordance with Actions 1.1, 1.2, and 1.3. Existing use of gravel bars and winter snows by aircraft will be permitted subject to reasonable provisions to protect the values of the WSR.

Remainder of the Fortymile Subunit: No OHV designations are in place. All areas will remain open to winter use (ground frozen to six inches) for vehicles weighing 6,000 pounds or less. Existing roads and trails will be open to all vehicles when the ground is frozen to a depth of 6

inches or more. At all other times of the year, vehicles exceeding 6,000 pounds require a permit, and vehicles weighing 6,000 pounds or less will be limited to existing roads or trails except for incidental use. The existing trail network has never been defined.

Special Designations

The Fortymile WSR was designated through ANILCA and is managed consistent with the Fortymile River Management Plan (BLM 1983a). No additional rivers would be recommended as suitable for designation under the Wild and Scenic Rivers Act. There are no designated areas of critical environmental concern, or research natural areas.

2.3. Decisions Common to Alternatives B, C, and D

Fish and Aquatic Species

The RMP defines priority fish species as those species utilized for subsistence, designated as BLM-Alaska sensitive species, federally listed under the Endangered Species Act, and those important for recreation. The BLM would manage and monitor priority species for self-sustaining populations. Current priority species are: Chinook salmon, chum salmon, coho salmon, Arctic grayling, broad whitefish, humpback whitefish, round whitefish, whitefish, least ciso, sheefish, northern pike, burbot, and Alaska Brook Lamprey.

BLM would manage aquatic habitats to meet the following desired conditions:

- Native aquatic species (fish, invertebrates, plants and other aquatic-associated species) are present and generally well distributed in historically occupied habitats.
- Develop a management plan for special status fish and aquatic species so they can thrive and expand into neighboring unoccupied habitats and depressed populations increase.
- Manage native aquatic animals to exhibit genetic integrity and life history strategies necessary to assure self-sustaining populations.
- Monitor spatial extents of habitat disturbances to be sure disturbances are less than the area occupied by priority species, in order to preserve population structure and life history strategies.
- Ensure populations of native and non-native fishes are managed consistently with federal, state and Native population goals.

The RMP identifies priority habitats as those habitats that support any life stages of priority aquatic species, including both resident and anadromous fish species. The highest priority areas for aquatic species are further designated as Riparian Conservation Areas. These watersheds contain the highest fisheries and riparian resource values within the subunit. In these watersheds, riparian-dependent resources would receive primary emphasis and management activities would be subject to specific requirements.

The BLM would manage aquatic habitats to reach a defined set of desired future habitat conditions. Most watersheds, generally should be in or making progress toward a High Condition Rating (Described in Appendix I of the Draft RMP/EIS). The BLM would design appropriate management actions or mitigate proposed activities at the site-specific project level, in attempt to move watersheds toward a High Condition Rating.

Within all watersheds the desired condition is to provide aquatic habitat to support native vertebrate and invertebrate populations. Stream channel conditions are stable and consistent with the surrounding landform and watershed.

Desired stream and riparian habitat conditions include the following factors (for a full description of these factors, see the complete Draft RMP/EIS):

1. Habitat Connectivity: Native fish species have access to historically occupied habitats.
2. Water Temperature: Cold Water Biota: Habitat complexity provides daily, seasonally, annually and spatially variable water temperatures within expected normal ranges. Consistent with Alaska Water Quality Standards (18 AAC 70) temperatures may not exceed 20 degrees C. at any time. The following maximum temperatures are not exceeded:
   - Migration routes 15 degrees C.
   - Spawning areas 13 degrees C.
   - Rearing areas 15 degrees C.
   - Egg and fry incubation 13 degrees C.
3. Turbidity: Stream stability levels facilitate balanced sediment aggradation and degradation within the watershed, thereby maintaining seasonally consistent turbidity levels. Turbidity levels would not exceed those outlined in the Alaska Water Quality Standards (18 AAC 70).
4. Pool Frequency: Pool frequency would approximate Rosgen (1996) estimates based on channel type.
5. Width to Depth Ratio: Less than or equal to 12:1 for confined channel types (Rosgen channel types A, E and G); less than 20:1 for moderately confined channel types (Rosgen channel type B); and less than 40:1 for unconfined channel types (Rosgen channel types C and F).
6. Channel Substrate Condition: Spawning gravel surface fines (<0.06 mm) in pool tails <5 percent (Bryce et al., 2008).
7. Large Woody Debris (applies to forested systems): Near-natural patterns in size and amount of in-channel, large woody debris and potential wood on stream banks and floodplain.
8. Streambank Stability: Streambank stability greater than ninety-five percent for A and B and E channel types; greater than ninety percent for C channel types within eighty percent of any stream reach. Streambank stability would be evaluated using the BLM Multiple Indicator Monitoring technique or other appropriate methodology.
9. Riparian and RCA Vegetation: Riparian and wetland areas in Proper Functioning Condition. Conditions reflect natural disturbances processes. Desired conditions generally mature to late seral community types as outlined in Winward 2000. Percent of riparian vegetation in the greenline dominated by late seral community types or anchored rocks/logs is greater than eighty percent (good-excellent ecological condition). Over eighty percent of the plant community type along the streambank provides high bank stability, deep fibrous roots, good resistance to streambank erosion or is comprised of anchored rocks/logs. The riparian vegetation provides adequate shade, large wood debris recruitment, and connectivity.

Management of Watersheds

These decisions apply to all watersheds and all subunits unless otherwise noted.

The BLM would provide hydrologic data to, and coordinate with, the state to secure instream flows needed to maintain riparian resources, channel conditions, and aquatic habitats.

To achieve the goals and to meet the Desired Future Conditions for aquatic habitats and species, while maintaining a thriving natural ecological balance and multiple-use relationship, the ROPs in section 2.7 would be implemented on a project-specific basis.

Locate water removal sites to minimize impacts to priority species and to avoid preventing attainment of desired conditions.

The BLM would utilize the watershed matrix to assist in site-specific project impact analysis. Mitigate impacts that are identified during site-specific analysis in the matrix as being potentially degrading to the watershed Condition Rating.

The following decisions apply to mining operations.

To avoid unnecessary and undue degradation of public lands under notice level mining operations and mining operations requiring a plan of operations, the 43 CFR 3809.420(b)(3)(ii)(E) requires the rehabilitation of fisheries and wildlife habitat. The fisheries and wildlife habitat rehabilitation performance standard requires the operator to rehabilitate or repair damage caused to fisheries or wildlife habitat.

Further, 43 CFR 3809.420(a)(3) requires operations and post-mining land use to comply with the applicable BLM land use plans and activity plans, and with coastal zone management plans under 16 U.S.C. 1451, as appropriate. The following section outlines planning area and location-specific goals that need to be the focus of a fisheries rehabilitation plan submitted under 43 CFR 3809.301 and 3809.401 in order to meet the fisheries rehabilitation requirement under 43 CFR 3809.420(b)(3)(ii)(E).

For purposes of this plan, the rehabilitation of fisheries habitat is defined as providing aquatic and riparian habitat characteristics that will support fish such that the species and life stage composition and density that occurred prior to disturbance is reestablished. Given the complexity of fisheries habitat rehabilitation in Alaska, reclamation plans will include detailed descriptions of measures that would be used to achieve the following three objectives. By focusing on these three objectives, the probability of fisheries habitat rehabilitation success is increased.

1. A stable channel form that is in balance with the surrounding landform such that channel features are maintained and the stream neither aggrades nor degrades. To achieve this the operator must design a post-mining stream channel using morphological characteristics of the pre-disturbance channel and floodplain (e.g., bankfull and floodprone dimension, meander pattern, design flows and velocity, riffle to pool ratio, substrate particle size). These characteristics could be derived from field surveys of the area, remotely sensed information, or information from adjacent watersheds that exhibit similar characteristics as the watershed proposed for mining. A key reference used on the national scale for alluvial channel design is The National Resources Conservation Service's *Stream Restoration Design, National Engineering Handbook, Part 654* (NRCS 2007 Chapter 9);
2. Sufficient riparian vegetation or anchored rocks/logs to effectively dissipate stream energy, prevent soil erosion, stabilize streambanks, provide essential nutrient input, and maintain water quality and floodplain function; and,
3. Provide instream habitat complexity similar to that of pre-disturbance levels by the use of instream structures (e.g., vortex rock weirs, cross-vane structures, installation of root wads).

Typically, the operator would satisfy these requirements through the development of a site-specific reclamation plan. Bond release would be based on meeting specific measurable objectives outlined in a monitoring plan (43 CFR 3809.401(b)(3)).

Develop monitoring and associated reporting requirements as part of site-specific plans (i.e., Plan of Operation) to measure impacts and subsequent reclamation success levels. Use monitoring

data to adaptively manage existing and future plans of operation to make measurable progress toward desired future conditions in subsequent years following reclamation.

Riparian Conservation Areas and ACEC Specific Requirements:

The management goal in RCAs and ACECs that meet the relevance and important criteria for fish and aquatic resources is to: maintain and provide stream channel integrity, ensure riparian proper functioning condition, and achieve desired future conditions for the high-value fish and aquatic resources, and yet allow for surface-disturbing activities.

To increase the likelihood of fisheries habitat rehabilitation within these watersheds, which represent the highest value fisheries resources within the planning area, additional baseline data pursuant to 43 CFR 3809.401 (c) (1) would be required. Within these areas baseline hydrological data that is adequate to characterize seasonal flow patterns and discharge would be required from the operator. The BLM would be available to advise operators on the exact type of baseline data and detail needed to meet this requirement. In addition (reclamation requirements, in site-specific reclamation plans) would be designed to result in rehabilitation of habitats within an accelerated timeframe (e.g., less than three years) and would focus on active revegetation and streambank stabilization techniques as the basis for reclamation design.

High Priority Restoration Watersheds:

The goal is to manage High Priority Restoration Watersheds to restore physical and biological integrity (High Condition Rating). Within the Steese Subunit, federal funding (less than one million dollars in Abandoned Mine Lands Funds) has been used for the Harrison Creek stream channel and floodplain restoration project. To ensure that any future restoration projects are not adversely impacted, the following would apply.

All surface-disturbing activities that are proposed within the same or upstream watersheds of ongoing or completed restoration projects must outline specific measures that would adequately mitigate or minimize adverse impacts the restoration project. This may be accomplished by providing a detailed plan of operations and a reclamation plan demonstrating the use of current best management practices.

Vegetative Communities

Manage wildland fire to achieve natural fire regimes and ecosystem processes dependent upon fire. Use prescribed fire to improve wildlife habitat.

Reduce disturbance of vegetation by minimizing footprint of surface-disturbing activities, consolidating access to minimize the number of routes, and requiring prompt reclamation and revegetation.

Manage lichen-rich plant communities as unique habitats due to the slow growth potential of lichen and its great importance to caribou.

The RMP would identify the following as priority plant communities:

- Aspen/Steppe bluffs (most often occurring as river bluffs).
- Riparian communities
- Wetlands (with a focus on wetlands other than the widespread mesic black spruce and tussock and shrub tussock vegetation types)

- Tall shrub communities
- Sparsely plant covered calcareous substrate (e.g. limestone)
- Lichen-rich habitats

Wilderness Characteristics

OBJECTIVE: In areas identified for maintenance of wilderness characteristics, manage to maintain naturalness, outstanding opportunities for solitude or a Primitive and unconfined type of recreation, and supplemental values so that these lands retain their wilderness characteristics for the life of the RMP.

DECISIONS:

Management decisions consistent with maintenance of wilderness characteristics are described below. The specific lands where wilderness characteristics would be maintained are described under each alternative.

Consistent with allocation decisions in the RMP, allow other multiple-uses on lands where wilderness characteristics would be maintained, while applying management restrictions (such as conditions of use or mitigation measures) to avoid or minimize impacts to wilderness characteristics and meet the objective retaining wilderness characteristics over the life of the RMP.

For Alternatives B, C, and D the following activities, uses, and decisions could occur in areas identified as lands where wilderness characteristic will be maintained:

- Snowmobile travel with adequate snow cover
- Motorboat use
- Airplane use, including primitive, unimproved landing areas
- Temporary structures and equipment placement related to hunting, fishing, and trapping
- Public use cabins and other small facilities
- Summer OHV use, including mechanized, on designated or existing trails
- Locatable mineral location and entry

The following activities, uses, and decisions are generally incompatible with maintaining wilderness characteristics:

- Mineral leasing
- Summer OHV use off of designated or existing trails
- Areas of desired future developed recreation facilities
- Uplands adjacent to navigable rivers where the State of Alaska may authorize development
- Lands available for disposal

Wildlife

Manage habitat for migratory birds to emphasize avoidance or minimization of negative impacts, and to restore and enhance habitat quality (Executive Order 13186).

Minimize impacts to known nest sites of priority raptors from actions authorized by the BLM. Priority raptor species are peregrine falcon, gyrfalcon, bald eagle, and golden eagle. Nest sites of other raptors would be managed similarly, although management would generally be less restrictive and would be determined in site-specific environmental analyses.

Employ industry-accepted best management practices to prevent raptors and other birds from colliding with or being electrocuted by utility lines, alternative energy structures, towers, and poles.

Prohibit the use of domestic goats, alpacas, llamas, and other similar species in conjunction with BLM-authorized activities occurring in Dall sheep habitat. Educate the public about the risks of using pack animals within Dall sheep habitat.

Protect crucial wildlife habitats through special restrictions, where necessary, including yearlong or seasonal activity restrictions and minimum altitudes for aircraft use.

Avoid or minimize impacts from projects that could degrade riparian areas and promote restoration of riparian areas to achieve proper functioning condition.

The RMP identifies the following species as priority wildlife species: caribou, Dall sheep, moose, peregrine falcon, gyrfalcon, bald eagle, golden eagle, martin, lynx, and all Special Status Species.

Inventory, and monitor priority wildlife species and their habitats. Monitor populations of priority and subsistence wildlife species in cooperation with ADF&G and the U.S. Fish and Wildlife Service (USFWS). Identify important habitats for priority species and monitor changes.

Lands and Realty

Allow FLPMA leases throughout the subunit, except where prohibited by law or public land order. All FLPMA leases would be at fair market value. Cabins or permanent structures used for private recreation may not be authorized. FLPMA lease proposals on selected lands must include a letter of non-objection from the selecting entity. Proposals for commercial use leases of cabins (such as guiding or trapping) would be considered.

Permits are used to authorize short-term occupancy, use, or development of a site under Section 302 of FLPMA (43 CFR 2920) or under ANILCA. Land use permits would be considered throughout the subunit with the following limitations:

1. Cabin or permanent structure permits are not issued for private recreation uses.
2. Trapping shelters would be authorized by short-term (three years maximum) Section 302 permits renewable at the discretion of BLM and generally "tied" to the applicant's ability to show actual use for commercial or subsistence trapping purposes.
3. Permit authorizations on all other BLM-managed lands would be considered pursuant to Section 302 of FLPMA.
4. Military maneuver permits would be considered within the planning area.
5. Permits for administrative use of BLM-managed lands by the state would be considered throughout the planning area.

Trespass cabins may become the property of the U.S. Government and be managed as administrative sites, emergency shelters or public use cabins. Possible management actions on trespass cabins include:

1. Authorization by lease or permit for legitimate uses, if consistent with goals and objectives for the area.
2. Relinquishment to the U.S. for management purposes.
3. Removal of the structure.

There would be no right-of-way exclusion areas. Rights-of-way authorizations on all BLM lands would be considered, and authorized under Title V of FLPMA in accordance with the regulations found in 43 CFR 2800. Rights-of-way would be located near other rights-of-way or on already disturbed areas whenever practical and reasonable to do so.

Allow for additional communication site development on BLM lands. Ensure coordination between existing and potential communication site users, and maximum utilization of existing sites (43 CFR 2800).

Leasable Minerals

Coal leasing is deferred because the coal screening process (as identified by 43 CFR 3420.1-4) has not been completed in the planning area. If an application for a coal lease is received, the appropriate land use and environmental analysis, including the coal screening process, would be conducted to determine whether or not the coal areas are acceptable for further consideration for leasing and development under 43 CFR 3420.1-4. An RMP amendment would be needed before coal leasing could occur. Only those BLM-managed public lands that have development potential may be identified as acceptable for further consideration for coal leasing.

Recreation

Manage Special Recreation Management Areas (SRMAs) proactively, with management directly tied to an identified primary market demand for structured recreation (such as activities, experiences, benefits, and maintenance of recreation setting character).

The following table shows the Recreation Setting decisions that apply to the subunit. These decisions would be applied to the Fortymile SRMA and correspond to the assigned Recreation Opportunity Spectrum (ROS) classes in the management area.

Table 2.2. Recreation Setting Decision Matrix for the Eastern Interior Planning Area

PHYSICAL - Resources and Facilities: Character of the Natural Landscape						
	Primitive Classification	*Semi-Primitive Classification*	*Backcountry Classification*	*Middlecountry Classification*	*Frontcountry Classification*	*Rural Classification*
Remoteness	Managed for an extremely high probability of experiencing solitude, closeness to nature, tranquility, self reliance, challenge, and risk.	Managed for a very high probability of experiencing solitude, closeness to nature, tranquility, self reliance, challenge, and risk.	Managed for a high probability of experiencing solitude, closeness to nature, tranquility, self reliance, challenge, and risk	Managed for a moderate probability of experiencing solitude, closeness to nature, and tranquility. Managed for a moderate degree of challenge and risk associated with the use of motorized equipment.	Managed for the opportunity to affiliate with other users in developed sites but with some chance for privacy. Little challenge and risk. On or near improved trails or roads.	Managed for the opportunity to observe and affiliate with other users in areas where convenience of facilities is important. On or near primary highways, but still within a rural area.
Naturalness	Protect an undisturbed or rehabilitated naturally-appearing landscape.	Provide a naturally-appearing landscape with a low level of modifications noticeable.	Provide a generally naturally-appearing landscape with a moderate level of modifications noticeable, none of which dominating natural landscape features.	Provide for a landscape partially modified by roads, pipelines, etc., with usually none dominating natural landscape features.	Provide for a landscape partially modified by roads, pipelines, etc., which may dominate natural landscape features.	Provide for a natural landscape substantially modified by structures and roads that usually dominate natural landscape features.
Visitor Facilities	Maintain minimal rustic and rudimentary facilities that are constructed for site protection using natural materials and are designed to blend with the surrounding landscape.	Maintain rustic and rudimentary facilities that are generally constructed using natural materials, and are designed to blend with the surrounding landscape.	Maintain some naturally appearing trails and facilities, such as cabins, bridges and signs for user convenience, which usually blend with the surrounding landscape.	Maintain marked trails with associated trailheads and facilities including cabins, toilets, parking areas and garbage collection, which generally blend with the surrounding landscape.	Maintain improved yet modest facilities such as campgrounds, toilets, trails, and interpretive signs, which could attract attention.	Maintain modern facilities such as developed campgrounds, group shelters, and exhibits, which generally attract attention.

SOCIAL – Visitor Use and Users: Character of the Social Environment						
	Primitive Classification	*Semi-Primitive Classification*	*Backcountry Classification*	*Middlecountry Classification*	*Frontcountry Classification*	*Rural Classification*
Contacts (with other group)	Average number of contacts per day to usually fewer than three groups per trip.	Average number of contacts per day to usually fewer than four groups per trip.	Average number of contacts per day to usually fewer than seven groups per trip.	Average number of contacts per day to usually fewer than 10 groups per trip.	People are generally visible at campsites, but are usually distant enough to prevent interactions.	People seem to be prevalent, but human contact is still intermittent
Group Size	Manage for a majority of group sizes that usually average fewer than three people per group.	Manage for a majority of group sizes that usually average fewer than four people per group.	Manage for a majority of group sizes that usually average fewer than seven people per group.	Manage for a majority of group sizes that usually average fewer than 10 people per group.	Manage for a majority of group sizes that usually average fewer than 12 people per group.	Manage for a majority of group sizes that usually average fewer than 15 people per group.
Evidence of Use	Only footprints are typically observed.	Footprints plus slight vegetation trampling at campsites and on travel routes. Winter snow trails and/or tracks may be present.	Winter snow trails and/or tracks may be present, but generally blend with the surrounding landscape. OHV routes may be present in the Fortymile SRMA.	Some landscape alternations are present but generally repeat the basic elements of the surrounding landscape. Surface vegetation showing wear with some bare soils.	Landscape alterations are generally present and may attract attention. Well-worn soils and vegetation, often gravel surfaced for erosion control.	Landscape alterations are present and attract attention. Improved routes protect soils and vegetation, but noise, litter, and facility impacts are possible.

ADMINISTRATIVE – Administrative and Service Setting: Character of the Operational Environment						
	Primitive Classification	*Semi-Primitive Classification*	*Backcountry Classification*	*Middlecountry Classification*	*Frontcountry Classification*	*Rural Classification*
Motorized Use	No trails or trailheads managed for motorized activities. Snowmobile, motorboat, and aircraft activity permissible through ANILCA 1110(a) and 811 but encounters are expected to be rare to non-existent. Restrictions may apply in Research Natural Areas. Summer OHV travel prohibited.	No trails or trailheads managed for motorized activities. snowmobile, motorboat, and aircraft activity permissible through ANILCA 1110(a) and 811 but encounters are expected to be rare. Summer OHV travel prohibited.	Various forms use may be present but not substantially noticeable. Winter trails maintained for snowmobile use. Summer OHV use may be restricted.	Four-wheel drives, all-terrain vehicles, motorboats, snowmobiles and aircraft uses are common, in addition to non-motorized use.	Two-wheel drive vehicle use is predominate on developed roads and highways, encounters will be regular. Trails and trailheads managed to accommodate summer and winter OHV use.	Car and truck traffic is characteristic and will be encountered on a regular basis. Trails and trailheads managed to accommodate summer and winter OHV use.
Management Controls	No visitor controls apparent. Enforcement presence very rare.	Signs at key access points on basic user ethics. Use restrictions may be present. Enforcement presence rare.	Occasional regulatory signing. Motorized and mechanized use restrictions are usually in place. Random enforcement presence.	Moderate regulatory signing. Motorized and mechanized use restrictions are usually in place. Periodic enforcement presence.	Rules clearly posted with common seasonal or weight/type of OHV use restrictions. Routine enforcement presence.	Regulations prominent. Total use can be limited by permit, reservation, etc. Significant enforcement presence may exist.
Visitor Services	None typically available on-site.	Basic maps and area personnel rarely available to provide on-site assistance.	Basic maps and area personnel occasionally available to provide on-site assistance.	Area brochures and maps, plus area personnel periodically present to provide on-site assistance. May have information and interpretation available.	Information materials describe recreation areas and activities. Area personnel are sometimes available.	Everything described to the left in this row, plus area personnel perform informal on-site education.

Travel Management

Designate all the BLM-managed lands as Open, Limited, or Closed to motorized travel activities (43 CFR 8340.0-5(f), (g) and (h)).

Open: "…an area where all types of vehicle use is permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set forth in subparts 8341 and 8342…"

Limited: "…an area restricted at certain times, in certain areas, and/or to certain vehicular use. These restrictions may be of any type, but can generally be accommodated within the following type of categories: Numbers of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions."

Closed: "…an area where off-road vehicle use is prohibited. Use of off-road vehicles in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer." In closed areas, a permit for motorized use may be issued pursuant to FLPMA, ANILCA, and the 1872 Mining Law.

The following would be exempt from OHV decisions: any fire, military, emergency, or law enforcement vehicle being used for emergency purposes; and any vehicle whose use is expressly authorized by the Authorized Officer, or otherwise officially approved (43 CFR 8340.0–5).

Subsistence

At the project or permitting level, develop measures that serve to minimize impacts to subsistence uses, users, and resources. This may include avoidance of specific areas or limitations on season of use.

Implement the ROPs and Fluid Mineral Leasing Stipulations (section 2.7) to assure access to and movement corridors for subsistence resources (roads, powerlines, other rights-of-way, buildings, pipelines, towers) and to minimize displacement of subsistence resources.

Comply with ANILCA Section 810 Evaluation and Finding during analysis of all land use proposals. The management of WSRs is to cause the least adverse impact possible on subsistence values (Section 802 of ANILCA).

Require infrastructure be constructed in a manner that it does not unreasonably impede access to subsistence resources. Restrict development of infrastructure or land disturbance in areas of high subsistence resource values or traditional harvest areas, where these activities would significantly restrict access by subsistence users[1]. Review subsistence decisions in land use plans for adjacent lands and coordinate with the respective land managers and ADF&G when proposed land use actions may affect those lands.

[1]Review of current land use restrictions and further analysis of existing data would help identify areas that may warrant restricted uses. Existing data would include technical reports on subsistence use, input from rural subsistence hunters, and locatable mineral analysis.

2.4. Alternative B

In addition to the decisions listed as common to all alternatives under Section 2.3 the following decisions would apply to Alternative B.

Fish and Aquatic Species

The following 11 High Priority Conservation Watersheds would be managed as Riparian Conservation Areas (Map 6):

1. Mosquito Fork Outlet (HUC # 190401041308)
2. Moose Creek-Mosquito Fork (HUC # 190401041305)
3. South Fork Fortymile River (HUC # 190401042006)
4. Fortymile River (HUC # 190401042201)
5. Middle Fork North Fork Fortymile River (HUC # 190401040701)
6. The Kink-North Fork Fortymile River (HUC # 190401040803)
7. North Fork Fortymile River (HUC # 190401040308)
8. Buck Creek-North Fork Fortymile River (HUC # 190401040306)
9. Seward Creek-Mission Creek (HUC # 190404010105)
10. Hilda Creek-North Fork Fortymile River (HUC # 190401040806)
11. Tower Bluffs Rapids (HUC # 190405030602)

The Sam Patch Creek-Fortymile River watershed (HUC # 190401042207) would be identified as a High Priority Restoration Watershed and be emphasized for active restoration (Map 6).

Complete watershed assessments prior to opening lands to locatable mineral location and entry to gather baseline information using the following priorities.

1. Watersheds containing areas of high/moderate locatable mineral potential.
2. Watersheds identified as RCAs.
3. Other watersheds.

Wildlife

Domestic sheep, goats, and camelids (includes alpaca and llama) are not allowed in Dall sheep habitat.

Wilderness Characteristics

Wilderness characteristics would be maintained on 994,000 acres (49 percent of the area with wilderness characteristics in this subunit). These lands occur within the Fortymile ACEC , Fortymile Special Recreation Management Area, and segments of the Fortymile WSR (Map 74).

Lands and Realty

Retain lands in the Fortymile WSR Corridor and the Fortymile ACEC (Map 62) under BLM-management. Consider acquisition of private inholdings from willing sellers, including lands surrounded on three sides by the Fortymile WSR Corridor.

Do not allow long-term camping for commercial purposes (i.e., camping in association with mining on state mining claims adjacent to BLM lands) in the "wild," "scenic," or "recreational" segments of the Fortymile WSR Corridor.

Designate the Fortymile Area of Critical Environmental Concern as a right-of-way avoidance area.

Leasable Minerals

Approximately 1,100,000 acres in the following areas would be closed to fluid and solid leasable minerals (Map 26):

- The Fortymile WSR Corridor (all segments)
- The Fortymile Special Recreation Management Area
- The Fortymile Area of Critical Environmental Concern
- Within one mile of identified ungulate mineral licks
- Lands identified as available for disposal
- BLM's Chicken and Eagle administrative sites, Fort Egbert, and the Eagle Recreational Withdrawal.

Approximately 2,000 acres of BLM split-estate would be open to fluid mineral leasing, subject to major constraints such as no surface occupancy.

The remainder of the subunit, approximately 974,000 acres, would be open to leasing, subject to standard Fluid Mineral Leasing Stipulations.

Locatable Minerals

The same areas that are closed to leasable minerals (described above), approximately 1,100,000 acres, would also be closed to locatable minerals (Map 26).

All remaining lands in the Fortymile Subunit, approximately 976,000 acres, would be open to locatable mineral entry.

Recreation

The Fortymile Special Recreation Management Area (SRMA) would include 792,000 acres of lands located within the Fortymile WSR Corridor, lands surrounding the town of Eagle and Davis Dome, and additional lands adjacent to the river corridor (Map 51). Under Alternative B, the Fortymile SRMA would include seven Recreation Management Zones (RMZ), the management of which are described in Appendix H of the Draft Eastern Interior Resource Management Plan and Environmental Impact Statement (BLM 2012). See also Table 2.2 of this document for a description of recreation opportunity spectrum classes.

Table 2.3. Fortymile Recreation and Travel Management Zones, Alternative B

Name of Zone	Acres	Recreation Opportunity Spectrum [a]	OHV Designation
North Fork Fortymile	537,000	Semi-Primitive	Limited
Mosquito Fork	80,000	Semi-Primitive	Limited
Fortymile	144,000	Backcountry	Limited
West Fork Fortymile	20,000	Backcountry	Limited
Wade Creek	3,400	Frontcountry	Limited
Chicken	6,800	Middlecountry	Limited

Name of Zone	Acres	Recreation Opportunity Spectrum [a]	OHV Designation
Eagle	840	Rural	Limited
Other BLM Lands	1,284,000	Not Applicable	Limited

[a]Table 2.2

Travel Management

Travel management prescriptions apply to the Travel Management Zones listed in Table 2.3 above. Each Travel Management Zone has an OHV designation of Limited. The Travel Management Zones consist of the same polygons used for Recreation Management Zones (RMZs) and the travel management decisions complement the recreation management for each zone.

The following paragraphs describe the travel management prescriptions for each zone. It is not practical to define and delineate a comprehensive travel management network for the Fortymile Subunit in this plan, due to incomplete route data, size and complexity of the area. Therefore, a map of preliminary (existing) routes (Map 51) and interim management prescriptions would be utilized (see below) until such time as a Comprehensive Travel Management Plan could be completed. Once the signed Record of Decision for the RMP is released, additional data would be collected and a Comprehensive Travel Management Plan would be completed, through interagency and public collaboration.

Interim Travel Management Prescriptions Common to All Lands

All forms of non-motorized use would be generally allowed, excluding the use of pack goats in Dall sheep habitat.

Cross-country winter use (October 15 through April 30) of snowmobiles 50 inches or less in width, and weighing 1,000 pounds curb weight and less would be allowed.

Aircraft use would be generally unrestricted, with the following provisions: Minimal clearing of rocks, downed logs, and brush would be allowed; construction or formal improvement of landing areas would occur by permit only; and, use of gravel bars and winter snow areas would be allowed, subject to reasonable provisions to protect the values of the "wild", "scenic" and "recreational" river segments.

Additional restrictions could be developed for the purposes of site protection, visitor safety, and/or enhancing recreational opportunities, experiences and outcomes.

Wild and Scenic River Corridors, including Suitable River Segments

All forms of non-motorized use would be allowed. Motorboat use would generally be allowed without specific authorization consistent with ANILCA sections 1110(a) and 811. Airboats, hovercraft, and personal watercraft would not be permitted in the following non-navigable river segments: the North Fork above the Kink, the Middle Fork, Champion Creek, Joseph Creek, Mosquito Fork above Ingle Creek, and Gold Run suitable segment. The closure procedures under 43 CFR 36.11(h) would be followed.

Interim Travel Management Prescriptions Semi-Primitive Zones

Same as Management Common to all Lands, with the following addition:

A permit or approved Plan of Operations would be required for all summer OHV use, including ATVs.

Interim Travel Management Prescriptions Backcountry, Middlecountry, Frontcountry and Rural Zones, and Other BLM lands outside of the SRMA

Same as Management Common to all Lands, with the following additions:

Summer use (May 1 through October 14) of OHVs 64 inches or less in width, and weighing 1,500 pounds curb weight and less would be allowed on existing routes only (Map 51).

A permit or approved Plan of Operations would be required for all other OHV use (new user created routes and cross-country travel off existing routes would not be allowed).

Withdrawals

Retain BLM administrative site withdrawals, including PLO 753, Eagle administrative site; PLO 1699, Chicken Administrative Site; and, PLO 3943, West Fork and South Fork recreation sites.

Retain PLO 3432, the Eagle Recreation Site withdrawal (816 acres).

Approximately 1,012,000 acres would be closed to locatable mineral entry in the following areas:

- The Fortymile Area of Critical Environmental Concern;
- Within one mile of ungulate mineral licks;
- The "wild", "recreational", and "scenic" segments of the Fortymile WSR, to include any lands within the river corridor that are not withdrawn under ANILCA or the Wild and Scenic Rivers Act; and,
- The Fortymile Special Recreation Management Area.

Areas of Critical Environmental Concern

Designate approximately 732,000 acres as the Fortymile ACEC (Map 62) to protect general caribou calving and postcalving habitat for the Fortymile caribou herd and Dall Sheep habitat. (Of this, 160,000 acres are in process of conveyance or are high priority Doyon, Limited, and State-selected lands and will likely be conveyed and 56,000 acres are within Fortymile WSR Corridor).

The entire ACEC would remain closed to entry, location, and leasing of minerals subject to valid existing rights. A mining Plan of Operations would be required on any mining activity within the ACEC (43 CFR 3809.11(c)(3)).

Within a distance of one mile of designated ungulate mineral licks, limit all permitted uses and development of facilities for permitted uses, from May 10 through August 31 to activities which would not reduce ungulate use of licks.

Allowed uses would be managed to maintain caribou and Dall sheep habitat. The area is and would remain generally free of summer motorized vehicle use (May 1 through October 14 sheep habitat; May 10 through July 15 remainder). (For example summer motorized vehicle use, in the areas of the ACEC where allowed, would be restricted to a limited set of routes.) In locations where motorized vehicle trails are currently established, motorized vehicle use would be limited to select existing trails or routes (or designated trails when travel management plan is completed).

In recreation management zones (RMZs) where motorized use is compatible (and OHV trail construction and other development may be planned), manage the area to maintain its value as caribou and Dall sheep habitat as well as to meet the recreation opportunity spectrum objectives for that RMZ; designated trails or routes and other developments may be established if limited in density and compatible with caribou and Dall sheep habitat.

Winter motorized use in Dall sheep habitat is currently minimal but would be monitored and, if it begins to approach a level which may result in altered distribution of Dall sheep, may be restricted in the future (through alteration of maintained trails or, if necessary, closures of limited areas and/or time periods).

Wild and Scenic Rivers

Outstandingly remarkable values for the Fortymile WSR would be:

- Champion Creek – scenic and historic;
- Dennison Fork and Middle Fork – scenic, recreation, and wildlife;
- Franklin, Hutchinson, Napoleon, and Uhler creeks – historic;
- Joseph Creek, Logging Cabin Creek, and Mosquito Fork – scenic;
- Main Stem Fortymile, Lower North Fork, and South Fork – scenic, recreation, geologic, historic, and wildlife.
- O'Brien Creek and Walker Fork – scenic and geologic;
- Upper North Fork – scenic, historic and wildlife;
- West Fork – scenic and recreation;
- Wade Creek – recreation and historic;

Under Alternative B, Dome Creek (five miles) would be recommended suitable for designation as “recreational” and Gold Run (four miles) would be recommended suitable for designation as “wild” under the Wild and Scenic Rivers Act.

2.5. Alternative C

In addition to the decisions listed as common to all alternatives under Section 2.3 above, the following decisions would apply to Alternative C.

Fish and Aquatic Species

The Tower Bluffs Rapids (HUC # 190405030602) watershed would be identified as a Riparian Conservation Area (Map 7).

The Sam Patch Creek-Fortymile River (HUC # 190401042207) would be identified as a High Priority Restoration Watershed and be emphasized for active restoration.

Complete watershed assessments as necessary for management.

Wilderness Characteristics

Wilderness characteristics would be maintained on 487,000 acres (24 percent of the area with wilderness characteristics in this subunit). These lands occur within the Fortymile “wild” river segments that do not contain mining claims or have been determined to be non-navigable, in the Dennison Fork “scenic segment”, and in the core of the Fortymile ACEC (Map 75).

Lands and Realty

Decisions on disposal or acquisition of lands would be the same as Alternative B.

No right-of-way avoidance areas would be designated.

Long-term camping in the Fortymile WSR Corridor would be authorized by permit. Allow long-term camping for commercial purposes (i.e., camping in association with mining on state mining claims) in the "scenic" and "recreational" segments of the Fortymile River, but not the "wild" segment. This is the same as Alternative A.

Leasable Minerals

Approximately 608,000 acres in the following areas would be closed to fluid and solid mineral leasing (Map 27).

- The Fortymile WSR Corridor (all segments)
- The Fortymile Special Recreation Management Area (same as the river corridor)
- Core caribou habitat in the Fortymile ACEC (central portion of the ACEC only)
- Lands identified as available for disposal
- BLM's Chicken and Eagle administrative sites, Fort Egbert Historic Site, and the Eagle Recreational Withdrawal.

Approximately 157,000 acres would be open to mineral leasing subject to minor constraints including the remainder of the Fortymile ACEC, outside of the core calving area.

The remainder of the subunit, approximately 1,311,000 acres, would be open to leasing, subject to standard Fluid Mineral Leasing Stipulations.

Locatable Minerals

The same areas that are closed to leasable minerals (described above), approximately 608,000 acres, would also be closed to locatable minerals (Map 28).

All remaining lands in the Fortymile Subunit, approximately 1,468,000 acres, would be open to locatable mineral entry.

Recreation

The Fortymile Special Recreation Management Area (SRMA) would include 249,000 acres of lands located within the Fortymile WSR Corridor and lands surrounding the town of Eagle and Davis Dome (Map 52). The SRMA would include nine Recreation Management Zones (RMZ), the management of which are described in Appendix H of the Draft Eastern Interior Resource Management Plan and Environmental Impact Statement (BLM 2012). See also Table 2.2 of this document for a description of recreation opportunity spectrum classes.

Table 2.4. Fortymile Recreation and Travel Management Zones, Alternative C

Name of Zone	Acres	Recreation Opportunity Spectrum [a]	OHV Designation
Middle Fork Fortymile	126,000	Semi-Primitive	Limited
Mosquito Fork	19,000	Semi-Primitive	Limited
Fortymile	66,000	Backcountry	Limited
West Fork Fortymile	13,000	Backcountry	Limited

Name of Zone	Acres	Recreation Opportunity Spectrum [a]	OHV Designation
Logging Cabin Creek	7,000	Middlecountry	Limited
O'Brien Creek	4,500	Middlecountry	Limited
Wade Creek	3,400	Frontcountry	Limited
Chicken	6,800	Middlecountry	Limited
Eagle	840	Rural	Limited
Other BLM Lands	1,827,000	Not Applicable	Limited

[a]Table 2.2

Travel Management

Alternative C is very similar to Alternative B. The primary differences are in the location and size of the Recreation Management Zones and an allowance for off-route travel for game retrieval.

Travel management prescriptions apply to the Travel Management Zones listed in Table 2.4 above. Each Travel Management Zone has an OHV designation of Limited. The Travel Management Zones consist of the same polygons used for Recreation Management Zones (RMZs) and the travel management decisions complement the recreation management for each zone. The following paragraphs describe the travel management prescriptions for each zone.

It is not practical to define and delineate a comprehensive travel management network for the Fortymile Subunit in this plan, due to incomplete route data, size and complexity of the area. A map of preliminary (existing) routes (Map 52) and interim management prescriptions would be used (see below) until such time as a Comprehensive Travel Management Plan could be completed. Once the signed Record of Decision for the RMP is released, additional data would be collected and a Comprehensive Travel Management Plan would be completed, through interagency and public collaboration.

Interim Travel Management Prescriptions Common to All Lands

All forms of non-motorized use would be generally allowed.

Cross-country winter use (October 15 through April 30) of snowmobiles 50 inches or less in width, and weighing 1,000 pounds curb weight and less would be allowed.

Aircraft use would be generally unrestricted, with the following provisions: Minimal clearing of rocks, downed logs, and brush would be allowed; construction or formal improvement of landing areas would occur by permit only; and use of gravel bars and winter snow areas would be allowed, subject to reasonable provisions to protect the values of the "wild", "scenic" and "recreational" river segments.

Additional restrictions could be developed for the purposes of site protection, visitor safety, and/or enhancing recreational opportunities, experiences and outcomes.

Wild and Scenic River Corridors, including Suitable River Segments

All forms of non-motorized use would be allowed. Motorboat use would generally be allowed without specific authorization consistent with ANILCA sections 1110(a) and 811. Airboats, hovercraft, and personal watercraft would not be permitted in the following non-navigable river segments: the North Fork above the Kink, the Middle Fork, Champion Creek, Joseph Creek, and Mosquito Fork above Ingle Creek. The closure procedures under 43 CFR 36.11(h) would be followed.

Interim Travel Management Prescriptions Semi-Primitive Zones

Same as Management Common to all Lands, with the following addition:

A permit or approved Plan of Operations would be required for all summer OHV use, including ATVs.

Interim Travel Management Prescriptions Backcountry, Middlecountry, Frontcountry and Rural Zones, and Other BLM lands outside the SRMA

Same as Management Common to all Lands, with the following additions:

Summer use (May 1 through October 14) of OHVs 64 inches or less in width, and weighing 1,500 pounds curb weight and less would be allowed on existing routes only, except for game retrieval (Map 52).

A permit or approved Plan of Operations would be required for all other OHV use (new user created routes and cross-country travel off existing routes would not be allowed).

Withdrawals

Retain BLM Administrative Site withdrawals, including Public Land Orders (PLO) 753, Eagle Administrative site; PLO 1699, Chicken Administrative site; and, PLO 3943 West Fork and South Fork Recreation sites.

Modify PLO 3432 (816 acres), Eagle Recreation site, to allow for expansion of Eagle Gravel Pit within the withdrawal and to allow inclusion of Fort Egbert facilities.

Approximately 504,000 acres would be closed to locatable mineral entry in the following areas:

- Core caribou calving habitat within the Fortymile Area of Critical Environmental Concern;
- Within one mile of ungulate mineral licks;
- The “wild”, “recreational”, and “scenic” segments of the Fortymile WSR, to include any lands within the river corridor that are not withdrawn under ANILCA or the Wild and Scenic Rivers Act; and,
- The Fortymile Special Recreation Management Area.

Areas of Critical Environmental Concern

Under Alternative C, approximately 547,000 acres would be designated as the Fortymile ACEC (Map 63) to protect concentrated caribou calving and postcalving habitat for the Fortymile caribou herd and Dall sheep habitat. (Of this, 43,000 acres are in the process of conveyance or are high priority Doyon, Limited, and State-selected lands and will likely be conveyed. Approximately 38,000 acres are within the Fortymile WSR Corridor).

Only a portion of this acreage (core calving/postcalving habitat and mineral licks, 360,000 acres) would be closed to entry, location and leasing of minerals subject to valid existing rights. A mining Plan of Operations would be required on any mining activity within an ACEC (43 CFR 3809.11(c)(3)). Lands within one mile of mineral licks outside of the core area of the ACEC are open to fluid leasable minerals subject to no surface occupancy, and closed to locatable mineral entry.

Within a distance of one mile of designated ungulate mineral licks, limit all permitted uses and development of facilities for permitted uses, from May 10 through August 31 to activities which would not reduce ungulate use of licks.

Allowed uses would be managed to maintain caribou and Dall sheep habitat. Within delineated sheep habitat and core caribou calving/postcalving habitat and within one mile of ungulate mineral licks, management intent would be the same as Alternative B for minerals management and travel management. Outside of delineated core calving/postcalving habitat, areas except for mineral licks would be open to locatable mineral entry subject to ROPs and open to leasable minerals subject to minor constraints. Seasonal activity restrictions would apply within the ACEC (Required Operating Procedures and Fluid Mineral Leasing Stipulations) and operators must submit a plan describing methods proposed to minimize impacts to caribou and Dall sheep and their habitat.

Wild and Scenic Rivers

Same as Alternative B, outstandingly remarkable values for the Fortymile WSR would be:

- Champion Creek – scenic and historic;
- Dennison Fork and Middle Fork – scenic, recreation, and wildlife;
- Franklin, Hutchinson, Napoleon, and Uhler creeks – historic;
- Joseph Creek, Logging Cabin Creek, and Mosquito Fork – scenic;
- Main Stem Fortymile, Lower North Fork, and South Fork – scenic, recreation, geologic, historic, and wildlife.
- O'Brien Creek and Walker Fork – scenic and geologic;
- Upper North Fork – scenic, historic and wildlife;
- West Fork – scenic and recreation;
- Wade Creek – recreation and historic;

Dome Creek and Gold Run would not be recommended suitable for designation under the Wild and Scenic Rivers Act.

2.6. Alternative D

In addition to the decisions listed as common to all alternatives under Section 2.3 above, the following decisions would apply to Alternative D.

Fish and Aquatic Species

The Sam Patch Creek-Fortymile River (HUC # 190401042207) would be identified as a High Priority Restoration Watershed and emphasized for active restoration.

Complete watershed assessments as necessary for management.

Wilderness Characteristics

Wilderness characteristics would be maintained on 54,000 acres (three percent of the area with wilderness characteristics in this subunit). These lands would occur in the Middle Fork Fortymile Semi-Primitive RMZ, which corresponds to the Joseph Creek and Middle Fork "wild" segments of the Fortymile WSR (Map 76).

Lands and Realty

Decisions on disposal and acquisition of lands would be the same as Alternative B, except the Eagle Recreation site (PLO 3432, 816 acres) would be available for disposal.

Long-term camping in the Fortymile WSR Corridor would be authorized by permit. Allow long-term camping for commercial purposes in the "wild," "scenic," and "recreational" segments of the Fortymile WSR.

Leasable Minerals

Approximately 158,000 acres in the following areas would be closed to fluid and solid leasable minerals (Map 29).

- The "wild" and "recreational" segments of the Fortymile WSR Corridor
- Lands identified for disposal
- BLM's Chicken and Eagle administrative sites, Fort Egbert Historic Site, and the Eagle Recreational withdrawal.
- Within one-half mile of identified mineral licks.

Approximately 507,000 acres in the Fortymile ACEC would be open to mineral leasing subject to minor constraints.

The remainder of the subunit, approximately 1,411,000 acres would be open to leasing, subject to standard Fluid Mineral Leasing Stipulations. This would include the "scenic" segments of the Fortymile WSR Corridor and all remaining lands not previously described.

Locatable Minerals

Approximately 156,000 acres in the following areas would be closed to locatable mineral entry (Map 30):

- The "wild" segment of the Fortymile WSR Corridor
- A portion of the "recreational" segment of the Fortymile WSR Corridor, starting at CRM, T. 27N., R. 20E., Sec. 19, S 1/2 and heading southwesterly along Wade Creek to the confluence of Wade Creek and Walker Fork
- Lands identified for disposal
- BLM's Chicken and Eagle administrative sites, Fort Egbert Historic Site, and the Eagle Recreational Withdrawal.
- Within one-half mile of identified mineral licks.

All remaining lands in the Fortymile Subunit, approximately 1,920,000 acres, would be open to locatable mineral entry, including the "scenic" segments of the Fortymile WSR Corridor and portions of the "recreational" segment (above the dredge site).

Recreation

Same as Alternative C, the Fortymile Special Recreation Management Area (SRMA) would include 249,000 acres of lands located within the Fortymile WSR Corridor and lands surrounding the town of Eagle and Davis Dome (Map 53). The SRMA would include ten Recreation Management Zones (RMZ), the management of which are described in Appendix H of the Draft

Eastern Interior Resource Management Plan and Environmental Impact Statement (BLM 2012). See also Table 2.2 of this document for a description of recreation opportunity spectrum classes.

Table 2.5. Fortymile Recreation and Travel Management Zones, Alternative D

Name of Zone	Acres	Recreation Opportunity Spectrum[a]	OHV Designation
Middle Fork Fortymile	54,000	Semi-Primitive	Limited
North Fork Fortymile	77,000	Backcountry	Limited
Mosquito Fork	19,000	Backcountry	Limited
Fortymile	64,000	Middlecountry	Limited
West Fork Fortymile	13,000	Middlecountry	Limited
Logging Cabin Creek	7,000	Frontcountry	Limited
O'Brien Creek	4,500	Frontcountry	Limited
Wade Creek	3,400	Frontcountry	Limited
Chicken	6,800	Rural	Limited
Eagle	840	Rural	Limited
Other BLM Lands	1,827,000	Not Applicable	Limited

[a]Table 2.2

Travel Management

Alternative D varies from Alternatives B and C in that cross-country summer use of OHVs weighing 1,500 pounds curb weight and less would be allowed in all areas except the Semi-Primitive RMZ.

Travel management prescriptions apply to the Travel Management Zones listed in Table 2.5 above. The Travel Management Zones consist of the same polygons used for Recreation Management Zones (RMZs) and the travel management decisions complement the recreation management for each zone. The following paragraphs describe the travel management prescriptions for each zone.

It is not practical to define and delineate a comprehensive travel management network for the Fortymile Subunit in this plan, due to incomplete route data, size and complexity of the area. A map of preliminary (existing) routes (Map 53) and interim management prescriptions would be utilized (see below) until such time as a Comprehensive Travel Management Plan could be completed. Once the signed Record of Decision for the RMP is released, additional data would be collected and a Comprehensive Travel Management Plan would be completed, through interagency and public collaboration.

Interim Travel Management Prescriptions Common to All Lands

All forms of non-motorized use would be generally allowed.

Cross-country winter use (October 15 through April 30) of snowmobiles 50 inches or less in width, and weighing 1,000 pounds curb weight and less would be allowed.

Aircraft use would be generally unrestricted, with the following provisions: Minimal clearing of rocks, downed logs, and brush would be allowed; construction or formal improvement of landing areas would occur by permit only; and use of gravel bars and winter snow areas would be allowed, subject to reasonable provisions to protect the values of the "wild", "scenic," and "recreational" river segments.

Additional restrictions could be developed for the purposes of site protection, visitor safety, and/or enhancing recreational opportunities, experiences and outcomes.

Wild and Scenic River Corridors, including Suitable River Segments

Same as Alternative C, all forms of non-motorized use would be allowed. Motorboat use would generally be allowed without specific authorization consistent with ANILCA sections 1110(a) and 811. Airboats, hovercraft, and personal watercraft would not be permitted in the following non-navigable river segments: the North Fork above the Kink, the Middle Fork, Champion Creek, Joseph Creek, and Mosquito Fork above Ingle Creek. The closure procedures under 43 CFR 36.11(h) would be followed.

Interim Travel Management Prescriptions Semi-Primitive Zones

Same as Management Common to all Lands, with the following addition:

A permit or approved Plan of Operations would be required for all summer OHV use, including ATVs.

Interim Travel Management Prescriptions Backcountry, Middlecountry, Frontcountry and Rural Zones, and Other BLM lands outside the SRMA

Same as Management Common to all Lands, with the following additions:

Cross-country summer use (May 1 through October 14) of OHVs 64 inches or less in width and weighing 1,500 pounds curb weight and less would be allowed.

A permit or approved Plan of Operations would be required for all other OHV use (new user created routes and cross-country travel off existing routes would not be allowed).

Withdrawals

Retain BLM Administrative Site withdrawals, including Public Land Order (PLO) 753, Eagle Administrative site; PLO 1699, Chicken Administrative site ; and PLO 3943 West Fork and South Fork Recreation sites.

Revoke PLO 3432 and make lands within the Eagle Recreational withdrawal (816 acres) available for disposal.

Approximately 51,000 acres would be closed to locatable mineral entry in the following areas:

- Within one-half mile of ungulate mineral licks;
- The “wild” segments of the Fortymile WSR, to include any lands within the river corridor that are not withdrawn under ANILCA or the Wild and Scenic Rivers Act; and,
- The portion of the "recreational" segment (Wade Creek) of the Fortymile WSR Corridor, below the dredge (CRM, T. 27N., R. 20E., Section 19).

Areas of Critical Environmental Concern

Under Alternative D, approximately 546,000 acres would be designated as the Fortymile ACEC (Map 64) to protect concentrated caribou calving and postcalving habitat for the Fortymile caribou herd and Dall Sheep habitat. (Of this, 43,000 acres are in process of conveyance or are high priority Doyon, Limited, and State-selected lands and will likely be conveyed and 38,000 acres are within the Fortymile WSR Corridor).

Areas within one-half mile of mineral licks and within the "wild" segments of the Fortymile WSR Corridor would be closed to locatable mineral entry and mineral leasing subject to valid existing rights. The remainder of the ACEC would be open to locatable mineral entry subject to the ROPs and to mineral leasing subject to minor constraints. A mining Plan of Operations would be required on any mining activity within an ACEC (43 CFR 3809.11(c)(3).

Within a distance of one-half mile of designated ungulate mineral licks, limit all permitted uses and development of facilities for permitted uses, from May 10 through August 31 to activities which would not reduce ungulate use of licks.

Allowed uses would be managed to maintain caribou and Dall sheep habitat. Seasonal activity restrictions would apply within the ACEC and operators must submit a plan describing methods proposed to minimize impacts to caribou and Dall sheep and their habitat.

Wild and Scenic Rivers

Same as Alternative C.

2.7. Required Operating Procedures and Leasing Stipulations

The BLM has developed measures to protect resources called “Required Operating Procedures” (ROPs) and “Fluid Mineral Leasing Stipulations” (Leasing Stipulations) as part of this planning process. These measures were guided by the standards and guidelines included in the Alaska Statewide Land Health Standards (IM AK 2004-023) and by the goals outlined in this RMP/EIS. The ROPs are requirements, procedures, management practices, or design features that the BLM will adopt to protect resources. Leasing Stipulations are requirements to reduce impacts to natural resources from fluid mineral exploration and development. The ROPs and Leasing Stipulations generally do not restate requirements that already exist in regulations or laws. Regulations or laws may require conditions that are more stringent than those presented in this section.

The ROPs apply to all actions, whether implemented by the BLM or authorized by the BLM and implemented by another individual, organization or agency on public lands. These were based on the best information available during development of the RMP/EIS.

ROPs are common to Alternatives B, C, and D, and will be applied as appropriate for BLM actions and BLM-authorized activities including: FLPMA leases and permits; Special Recreation Permits; oil and gas activities; coal activities; renewable energy activities; mining Plans of Operation; and, authorizations for rights-of-way. For fluid mineral leasing activities, ROPs would apply in addition to the Standard Lease Terms and Leasing Stipulations. Only those ROPs concerning resources that are potentially affected by the action will be applied to permits and authorizations. The ROPs may be modified through site-specific analysis of subsequent authorizations. Modifications to ROPs may be appropriate if other measures are taken to protect resources that would result in the same or reduced impact.

Fluid Mineral Leasing Stipulations (Leasing Stipulations) are specific to fluid mineral activity, including exploration, development, and production. These Leasing Stipulations are included in a lease in addition to the Standard Lease Terms. Fluid minerals include oil and gas, geothermal, and coal bed natural gas. Leasing Stipulations constitute significant restrictions on the conduct of operations under a lease.

Additional site-specific Leasing Stipulations may be added, if determined necessary, through further analysis. Since no fluid leasing is assumed during the life of this plan, leasing may only occur following additional National Environmental Policy (NEPA) analysis. Additional stipulations may be developed at that time.

Leasing Stipulations may be excepted, modified or waived by the AO pursuant to 43 CFR 3101.1-4 and WO-IM-2008-032. The environmental analysis prepared for fluid mineral development (such as Applications for Permit to Drill or sundry notices) will address proposals to except, modify, or waive a Leasing Stipulation. To except, modify, or waive a stipulation, the environmental analysis would need to show that: 1) the circumstances or relative resource values in the area had changed following issuance of the lease; or 2) less restrictive requirements could be developed to protect the resource of concern; or 3) operations could be conducted without causing unacceptable impacts; or 4) the resource value of concern does not occur within the lease area. An exception exempts the holder of a lease from the Leasing Stipulation on a one-time basis. A modification changes the language or provisions of a Leasing Stipulation, either temporarily or for the term of the lease. A waiver permanently exempts the Leasing Stipulation.

2.7.1. Required Operating Procedures

Cultural and Paleontology

ROP C-1 For permitted activities, cultural resource protection and conservation will be consistent with 1) Sections 106, 110, and 101d of the National Historic Preservation Act (1966, as amended); 2) procedures under BLM's 1997 National Programmatic Agreement for Section 106 compliance or its successor agreement; and, 3) the 1998 Protocol for Managing Cultural Resources in Alaska between BLM-Alaska and the Alaska State Historic Preservation Officer (SHPO) or its successor agreement.

ROP C-2 Mitigation measures will be considered for all actions that may potentially affect cultural resources. If the AO determines mitigation measures are necessary to protect and conserve known cultural resources, a mitigation plan will be approved by SHPO and implemented by the AO. Mitigation plans will be reviewed as part of Section 106 consultation for National Register of Historic Places eligible or listed properties. The extent and nature of recommended mitigation will be commensurate with the significance of the cultural resource involved and the anticipated extent of the damage. Costs for mitigation will be borne by the land use applicant.

ROP C-3 The BLM will evaluate the impacts of proposed actions to known paleontological resources. If damage to known significant paleontological resources cannot be avoided, the applicant (or the BLM for internal actions) will perform scientific examination of the impacted significant paleontological resources followed by mitigation approved by the AO. This may include the professional collection and analysis of significant specimens by scientists.

Fish and Aquatic Species

ROP FA-1 No road crossings will be permitted in priority fish species spawning habitat, unless no feasible alternative exists.

ROP FA-2 New, replacement, and reconstructed stream crossing structures (such as bridges and culverts) will be designed to:

- Accommodate a 100-year flood event, including bedload and debris;

- Maintain fish and aquatic organism passage;
- Maintain channel integrity;
- Accommodate mean bankfull channel widths; and,
- Incorporate adjacent reclamation (such as willow cuttings, wattles, brush layering) on the disturbed areas up and downstream of the abutments.

ROP FA-3 Application of pesticides and other toxicants will occur in a manner that does not prevent or retard attainment of desired conditions or adversely impacts priority aquatic species.

ROP FA-4 Drilling is prohibited in fish-bearing rivers and streams, as determined by the active floodplain; and fish-bearing lakes, except where the applicant can demonstrate on a site-specific basis that impacts would be minimal or it is determined by the AO that there is no feasible or prudent alternative.

ROP FA-5 When feasible, all water intakes will be screened and designed to prevent fish intake.

ROP FA-6 Reclamation plans for the rehabilitation of fish habitat as required under 43 CFR 3809.420(b)(3)(ii)(E) will focus on three objectives. Typically, these requirements would be satisfied through the development of a site-specific reclamation plan and on achievement of reclamation objectives. Bond release would be based on meeting specific measurable objectives outlined in a monitoring plan (43 CFR 3809.401(b)(3)). These objectives are:

1. Provide a stable channel form that is in balance with the surrounding landform such that channel features are maintained and the stream neither aggrades nor degrades. To achieve this, it will be necessary to design a post-mining stream channel using morphological characteristics of the pre-disturbance channel and floodplain (such as bankfull and floodprone dimensions, meander patterns, design flows and velocities, riffle-to-pool ratios, substrate particle sizes, and so on); which could be derived from field surveys of the area, remotely sensed information, and/or information from adjacent watersheds that exhibit similar characteristics as the watershed proposed for mining.
2. Provide sufficient riparian vegetation or anchored rocks/logs to effectively dissipate stream energy, prevent soil erosion, stabilize streambanks, provide essential nutrient input, and maintain water quality and floodplain function.
3. Provide instream habitat complexity similar to that of pre-disturbance levels through the use of instream structures (such as vortex rock weirs, cross-vane structures, and installation of root wads).

ROP FA-7

Within Riparian Conservation Areas and the Salmon Fork ACEC, baseline hydrological data adequate to characterize the seasonal flow patterns and discharge will be required prior to surface-disturbing activities with the potential to affect stream channel integrity; reduce riparian functioning condition; or, reduce the Watershed Condition Rating. The BLM will be available to advise operators on the exact type of information and detail needed to meet this requirement. Reclamation plans will be designed to result in rehabilitation of habitats within an accelerated timeframe (such as less than three years) and will focus on active revegetation and streambank stabilization techniques as the basis for reclamation design.

Forestry

ROP Forest-1 Timber sale authorizations will require the proper site preparation to ensure natural regeneration of timber stands.

ROP Forest-2 Timber sales will include buffers to prevent disturbance of priority fish species habitat and sedimentation into streams. Buffer widths will be dependent on harvest method, season of harvest, equipment used, slope, vegetation, and soil type. Winter operations will be considered in order to avoid the need for road building and reduce impacts to soils, vegetation, and riparian areas.

Hazmat and Waste Management

ROP Hazmat-1 Areas of activities will be left clean of all debris to minimize environmental contamination from solid waste.

ROP Hazmat-2 All solid wastes, including incinerated ash, will be removed by the permittee from public lands and disposed of within an Alaska Department of Environmental Conservation (ADEC) approved facility, unless otherwise specified. Solid waste combustibles may be incinerated in a contained and controlled manner, however, burn restrictions may apply during high-risk wildland fire seasons. Burial of solid waste is not authorized on public lands.

ROP Hazmat-3 Wastewater should be managed in accordance with Title 18 Alaska Administrative Code, Chapter 72, (18 AAC 72) Wastewater disposal. Wastewater can be defined as human wastes (sewage) and gray water (wastewater from a laundry, kitchen, sink, shower, bath or other domestic sources). Pit privies are authorized in accordance with 18 AAC 72.020(b)(c)(i), 72.030 and all applicable updates. If these standards cannot be met, then special authorization may be given by the AO. Gray water may not be released in any waterbody, without authorization under the Alaska Pollutant Discharge Elimination System (APDES). Gray water may be filtered and released to the surface so as not to cause erosion, and the grey water released must maintain compliance with the ADEC's guidance.

ROP Hazmat-4 All hazardous materials and petroleum, oil, and lubricants (POLs) will be stored in containers that are compatible to the material being stored. Containers wiill be labeled with the responsible party's name, contents of the container, the date the product was purchased, and the date the container was filled.

ROP Hazmat-5 Transportation and storage of POLs will be handled in a safe manner to avoid impacts to the environment and human health. The storage area for any POLs must be approved by the AO.

ROP Hazmat-6 POLs that are transferred to remote locations for operations are to be stored within a containment area constructed to contain 110 percent of the volume of the largest container. The containment area must be lined with an impermeable liner which is free of cracks or gaps, compatible with the contents to be stored, and sufficiently impervious to contain leaks or spills. The containers shall be covered to eliminate the collection of rainwater within the containment area throughout the storage period.

ROP Hazmat-7 All hazardous materials/toxic substances must be disposed of in accordance with EPA and ADEC regulations at the time of disposal.

ROP Hazmat-8 Transfer of POLs to equipment will be completed in a secure manner to minimize the possibility of contamination to the surrounding environment. At a minimum, POL-type absorbent pads will be placed under the transfer location to catch overflow or assist the operator in containing a spill. If refueling cannot be avoided within riparian habitat, 500 feet of fish-bearing waterbodies, or 100 feet of non-fish bearing waterbodies; the responsible party must exercise caution while refueling to ensure no release of POLs into the waterbody. Equipment that has been identified as having a fluid leak must have a drip basin placed under the leak area to ensure no release to the surrounding environment or collection of rain water.

ROP Hazmat-9 Equipment maintenance by the responsible party may be allowed if it is necessary to operate equipment as described in the authorization. Equipment maintenance that has the potential to release fluids should be completed over an impermeable liner to ensure fluid migration to the environment does not occur.

ROP Hazmat-10 A Spill Prevention, Control and Countermeasure Plan (SPCC) will be written for all sites which have the potential to store 1,320 gallons or more of POLs. SPCCs will follow the requirements in 40 CFR 112 and state regulations.

ROP Hazmat-11 All spills will be contained and cleaned up in accordance with ADEC guidance as soon as the release has been identified, unless health and safety of personnel is at risk. ADEC discharge notifications and reporting requirements are outlined in AS 46.03.755 and 18 AAC 75 Article 3. The release of POLs to any waterbody must be immediately reported to ADEC, as soon as the person has knowledge of the release. The responsible party will contact the AO within 48 hours of a spill on public lands. Notifying the EPA may be required for discharges of oil, as required by 40 CFR 112.4.

Mineral Materials (Salable Minerals)

ROP MM-1 Use existing upland material sources that meet suitability and economic needs whenever possible. Using material from wetlands, lakes, and active or inactive floodplains will be avoided, unless no feasible upland alternative exists. Sales or permits for in-stream gravel extraction within an active channel will not be allowed in priority fish species spawning habitat.

ROP MM-2 When authorizing mineral material sale sites, avoid habitats critical to local fish or wildlife populations (such as fish spawning and overwintering, calving areas, or raptor nesting sites). Avoid key geomorphic features, such as the river cut banks and associated riparian zones; springs; active channels of small, single channel rivers;, and, wetlands.

ROP MM-3 When authorizing mineral material sale sites, avoid priority plant species and communities. If sales are authorized in vegetated areas all overburden, vegetation mats and debris will be saved and appropriately stored for use during site reclamation to facilitate vegetative recovery.

ROP MM-4 When scraping gravel in active or inactive floodplains, maintain buffers that will constrain active channels to their original locations and configurations.

Soils

ROP Soils-1 Save all organic material in a separate area from overburden (defined in 43 CFR 23.3 (d)) for future use.

ROP Soils-2 Stockpiled soil and overburden will be spread over mine tailings and stabilized to minimize erosion. The shape of contoured tailing and overburden should approximate the shape of surrounding terrain.

ROP Soils-3 Roadways will be ditched on the uphill side. Culverts or low water crossings will be installed at suitable intervals. Spacing of drainage devices and water bars will be appropriate for the road gradient and soil erodibility of the site.

ROP Soils-4 Design roads and trails for minimal disruption of natural drainage patterns.

ROP Soils-5 Roads and trails should avoid areas with unstable or fragile soils.

ROP Soils-6 Water bars will be placed across reclaimed roads. Spacing will be dependent on road gradient, soil erodibility, and other site-specific factors.

ROP Soils-7 Snow and ice bridges will be removed, breached, or slotted before spring break-up. Ramps and bridges will be substantially free of soil and debris.

ROP Soils-8 Overland moves and heavy equipment use:

- Whenever possible, overland moves that are a part of permitted operations will occur during winter when frost and snow cover is sufficient to minimize vegetation and soil disturbance and compaction. The AO will determine the date when sufficient frost and snow cover exists and no overland moves should occur until these conditions are met.
- Design and locate winter trails and ice roads for overland moves to minimize compaction of soils and breakage, abrasion, compaction, or displacement of vegetation.
- Clearing of drifted snow is generally allowed, to the extent that vegetative ground cover is not disturbed.
- Offsets of winter trail/ice road locations may be required to avoid using the same route or track each subsequent year.
- When access is required in snow-free months, routes that utilize naturally hardened sites will be selected to avoid trail braiding and wetlands will be avoided. The permittee will employ vehicle types and methods that minimize vegetation and soil disturbance, such as use of air or water craft, utilizing existing roads or trails, or use of low ground pressure vehicles.
- The use of heavy machinery in saturated soil conditions will be limited to low ground pressure designated machinery.

Special Status Species

ROP SS-1 The planning area may contain or be identified with Special Status Species or their habitats. The BLM may require actions to avoid or minimize impacts to Special Status Species, pursuant to BLM policy and Endangered Species Act consultation.

ROP SS-2 Where practical, use may be redirected to protect Special Status Species habitat; to enhance indigenous animal population; or, to otherwise maintain public land health through avoidance of sensitive habitat. If impacts to Special Status Species (populations and habitats) cannot be avoided, the applicant (or the BLM for internal actions) will develop mitigation measures to reduce impacts.

ROP SS-3 Where populations or individual sensitive status plant species are located, take measures to protect these populations or individuals through site-specific buffers or management prescriptions. Route new roads and trails away from known sensitive plant communities, with

minimum 100-foot buffers; and minimize summer cross-country OHV travel where there are sensitive plants.

Subsistence

ROP Sub-1 For externally generated actions, the BLM may require applicants to provide information to potentially affected subsistence communities regarding the timing, siting, and scope of the proposed activity and to consult with potentially affected subsistence communities regarding ways to minimize impacts to subsistence. If consultation occurs, the applicant may be required to provide documentation of their consultation efforts to the BLM.

Vegetation and Non-Native Invasive Species

ROP Veg-1 All vegetation treatments and revegetation of surface disturbance will require an approved site-specific plan designed to prevent the introduction of non-native invasive plants (NIP), and achieve desired conditions. These plans should describe current vegetative conditions: including plant community composition, structure, cover, seral stages, soil descriptions, age class distribution if applicable, and presence of NIP, desired vegetative conditions (based on the ecological capability of the site), treatment methods, measures for preventing introduction and spread of NIP, and monitoring actions. Whenever possible, treatments will use native vegetation and seed. Non-native vegetation and seed may be used with specific approval from the AO, and in the following cases (1) where native species are not available in sufficient quantities; (2) where native species are incapable of maintaining or achieving the objectives; or, (3) where non-native species are essential to the functional integrity of the site. Seed must meet Alaska certification standards (11 AAC 34.020 Prohibited and Restricted Noxious Weeds) and any amendments to the existing seed laws or new seed legislation.

ROP Veg-2 Existing roads and trails will be utilized for access where feasible, rather than creating new roads and trails. All road or trail construction must include a plan for reclamation similar to a vegetation treatment plan in ROP Veg-1 above. It should also include best management practices for revegetation of cuts and fills and minimize off-site sediment transport impacts. Construction of road or trails in wetlands and floodplains will be avoided.

ROP Veg-3 Destruction of the vegetative mat and associated vegetation will not be be authorized, unless the AO determines that no feasible alternative exists. In those cases the AO will require that the vegetative mat and topsoils be salvaged and appropriately stored and used for reclamation. If the AO decides that vegetative mat and topsoils cannot be salvaged, other measures to protect vegetation and soils will be considered. Plans for revegetation of surface disturbances will be clearly addressed during authorization of an action.

ROP Veg-4 Design and locate permanent facilities to minimize the development footprint.

ROP NIS-1 To eliminate, minimize, or limit the spread of noxious and non-native invasive plants, only feed and mulch (hay cubes, hay pellets, or straw, for example) certified as weed-free through the Alaska Weed-Free Forage certification program (or other programs with approval of the AO) will be authorized on BLM lands. Where Alaska certified sources are not available, locally produced forage and mulch may be used with approval from the AO. If no certified weed-free or local sources are available, other products may be used with the approval of the AO.

ROP NIS-2 To eliminate, minimize, or limit the spread of noxious and non-native invasive plants, only gravel and material certified as weed-free through the Alaska Weed-Free Gravel certification program will be authorized on BLM lands. Where weed-free gravel and materials are not available other sources may be used, with the approval of the AO.

ROP NIS-3 Fire management actions, including prescribed fire operations, wildland fire suppression and fire rehabilitation efforts, will protect burned and adjacent areas from the introduction and spread of non-native invasive plants. Protection may include the use of washing stations with a containment system.

ROP NIS-4 Employ measures outlined in the most current Alaska Aquatic Nuisance Species Management Plan (ADF&G 2002a) and the most current Interim Fire Operations Guidance to Prevent Spread of Aquatic Invasive Species (USFS 2011) to reduce the introduction and spread of Aquatic Nuisance Species.

ROP NIS-5 All actions implemented or authorized by the BLM will include measures to prevent the introduction and spread of non-native invasive species, if applicable to the site.

Visual Resource Management (VRM)

ROP VRM-1 To the extent practicable, all facilities and activities will be located away from roads (except access roads), rivers, trails, and other transportation features; using distance to reduce the facility's visual impact along travel corridors.

ROP VRM-2 All facilities and activities will be designed to meet the visual resource management class, using proper siting and location so that natural features of vegetation and landforms provide screening from travel corridors and other key observation points, and to blend with the natural surroundings.

ROP VRM-3 The modification or disturbance of landforms and vegetative cover will be minimized. Facilities and activities will be designed to reduce unnecessary disturbance.

ROP VRM-4 Facilities and activities will be designed so their shapes, sizes, colors, and textures harmonize with the scale and character by repeating the elements of line, form, color and texture of the surrounding landscape, where possible.

ROP VRM-5 In open exposed landscapes, development will be located in the opposite direction from the primary scenic views, where feasible.

Water, Riparian, and Wetland

ROP Water-1 Where instream operations are authorized, streams must be diverted using an appropriately sized bypass channel.

ROP Water-2 In mining operations and fluid mineral leasing operations, all process water and ground water seeping into an operating area must be treated appropriately (i.e., use of settling ponds) prior to re-entering the natural water system.

ROP Water-3 Settling ponds will be cleaned out and maintained at appropriate intervals to comply with state and federal water quality standards. Fine sediment captured in the settling ponds will be protected from washout and left in a stable condition at the end of each field season to prevent unnecessary or undue degradation to the environment during periods of non-operation.

ROP Water-4 Streams altered by channeling, diversion, or damming will be restored to a condition that will allow for proper functioning of the riparian zone and stream channels. Active streams will be returned to the natural water course or a new channel will be created at its lowest energy state (valley bottom) that approximates the old natural channel in shape, gradient, and meander frequency using a stable channel design.

ROP Water-5 All permitted operations will be conducted in such a manner to not block any stream or drainage system.

ROP Water-6 Structural and vegetative treatments in riparian and wetland areas will be compatible with the capability of the site, including the system's hydrologic regime, and will contribute to maintenance or restoration of proper functioning condition.

ROP Water-7 Projects requiring the withdrawal of water will be designed to maintain sufficient quantities of surface water and contributing groundwater to support fish, wildlife, and other beneficial uses.

ROP Water-8 State-designated stream crossings will be used where possible for vehicle travel. Stream crossings are online at http://www.habitat.adfg.alaska.gov/gpvehstreamxings.php, noted under the General Permits Index-Authorized Vehicle Stream Crossings

ROP Water-9 Rivers and streams will be crossed by vehicles at shallow riffles from point bar to point bar, where possible.

ROP Water-10 When a stream must be crossed, the crossing will be as close to possible to a ninety degree angle to the stream. Stream crossings will be made at stable sections in the stream channel, based on Rosgen channel type evaluations.

ROP Water-11 Disturbed stream banks will be recontoured and revegetated (or other protective measures will be taken) to prevent soil erosion into adjacent waters.

Wildland Fire Management

ROP FM-1 Permittees and casual users will be held financially responsible for any actions or activity that results in a wildland fire. Costs associated with wildland fires include (but are not limited to) damage to natural or cultural resources and costs associated with any suppression action taken on the fire.

ROP FM-2 The BLM will not be held responsible for protection of permittees' structures or their personal property from wildland fire. It is the responsibility of permittees and lessees to mitigate and minimize risk to their personal property and structures from wildland fire, following the conditions in their permit.

ROP FM-3 Gas-powered equipment must be equipped with manufacturer approved and functional spark arrestors.

ROP FM-4 To avoid the potential impacts to aquatic life, the BLM prohibits the use of fire retardant, except when necessary to protect human life, permanent year-round residences, national historic land-marks, structures listed or eligible for the National Register of Historic Places, government facilities, other designated sites or structures, or high-value resources on adjacent lands. Water will be used instead of fire retardant where possible or appropriate. The use of

fire suppressant foams is prohibited. Fisheries staff will be involved with decisions to deliver chemical retardant, additives to, or grey water discharge into surface waters.

ROP FM-5 The use of tracked or off-road vehicles in wildland fire suppression or management activities will be conducted in a manner that does not cause erosion, riparian area damage, water quality or fish habitat degredation, or contributes to stream channel sedimentation.

ROP FM-6 Off-road use of heavy equipment and other motorized vehicles requires approval of the AO.

ROP FM-7 Rehabilitate burned areas in accordance with the wildland fire-specific rehabilitation plan provided by the Field Office to the suppression agency.

ROP FM-8 Firelines to mineral soil will not be built in or around riparian areas; unless they are needed to protect life, property, and/or wetland resources. Use natural features as preferred firebreaks over firelines constructed to mineral soil. When possible, use hand crews to construct firelines within (or adjacent to) riparian areas.

ROP FM-9 To the extent practicable, select the location for incident bases, camps, helibases, and so on to avoid riparian areas.

Wildlife

ROP Wild-1 Design pipelines and roads to allow the free movement of wildlife and the safe, unimpeded passage of the public while participating in traditional subsistence activities. The currently accepted design practices are: 1) Above-ground pipelines will be elevated a minimum of seven feet, measured from the ground to the bottom of the pipeline at vertical support members, to facilitate human and wildlife movement under the pipe; 2) In areas where facilities or terrain may funnel caribou movement, ramps over pipelines or buried pipelines may be required; and, 3) Where feasible, maintain a minimum distance of 500 feet between above-ground pipelines and roads.

ROP Wild-2 Prior to development of large facilities, the AO may require development of an ecological land classification map of the development area. The map will integrate geomorphology, surface form, and vegetation at a scale, level of resolution, and level of positional accuracy adequate for detailed analyses of development alternatives and facility siting options. The map will be prepared in time to plan one summer season of ground-based wildlife or vegetation surveys, if deemed necessary by the AO, before approval of exact facility location and facility construction.

ROP Wild-3 Whenever possible, operations that require vegetation removal will avoid the migratory bird nesting period of May 1 to July 15 (USFWS Advisory: Recommended Time Periods for Avoiding Vegetation Clearing in Alaska to Protect Migratory Birds. September 2007). If NEPA analysis reveals that this would unacceptably compromise project objectives or logistical feasibility, potential impacts must be identified, and mitigation applied that are appropriate to the magnitude and duration of expected effects. Assessments would focus on species of concern, priority habitats, and key risk factors. Permittees/project proponents will be reminded that it is their responsibility to comply with provisions of the Migratory Bird Treaty Act.

ROP Wild-4 Employ industry accepted best management practices to prevent raptors and other birds from colliding with or being electrocuted by utility lines, alternative energy structures,

towers, and poles (APLIC 2006, http://www.aplic.org/). If possible bury utility lines in important bird areas. Where raptors are likely to nest in human-made structures (such as cell phone towers) and such use could impede operation or maintenance of the structures or jeopardize the safety of the raptors; equip the structures with either (1) devices engineered to discourage raptors from building nests, or (2) nesting platforms that will safely accommodate raptor nests without interfering with structure performance.

ROP Wild-5 Guy-wired apparatus, regardless of purpose, will be marked in accordance with the guidance provided by the USFWS Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers, dated September 14, 2000, or a more current or contemporaneous version of that guidance.

ROP Wild-6 To minimize the potential for disease transmission to wildlife, the use of domestic sheep, goats, alpacas, llamas, and other similar species will not be authorized in conjunction with BLM-authorized activities in Dall sheep habitat.

ROP Wild-7 Activities will not be authorized between May 15 and July 15 if the activity will interfere with caribou calving and postcalving activities or Dall sheep lambing (May 10 through June 1). However, ongoing mineral production activities will be allowed throughout these time periods. In these areas and time periods, aircraft associated with activities that require BLM authorization will maintain an altitude of at least 1,500 feet above ground level (except for takeoffs and landings), unless doing so would endanger human life or violate safe flying practices. These seasonal restrictions can be modified based on actual caribou or Dall sheep occupancy of the area.

ROP Wild-8 Within the Fortymile and White Mountains caribou calving and postcalving ranges (Map 90), mineral exploration activities will not be authorized from May 15 through July 15 unless the AO determines that caribou no longer occupy the specific area of the proposed operations. This seasonal restriction can be modified based on actual caribou occupancy of area.

ROP Wild-9 All reasonable precautions will be taken to avoid attracting wildlife to food and garbage. Garbage from all BLM-authorized activities will be removed and properly disposed to prevent habituation of wildlife or alteration of populations. The BLM may require food and garbage to be stored in bear-proof containers or by methods that make it unavailable to bears or other wildlife.

ROP Wild-10 From May 1 through August 31, avoid sustained human activity within one-quarter mile of trumpeter swan nests and rearing ponds. No activity will commence prior to May 15 and, if necessary, qualified personnel will conduct a preliminary site survey within the two-week period prior to the projected start date of the activity to determine trumpeter swan presence. If present, short-term activities will be delayed until after nesting trumpeter swans and cygnets have left the habitat. Exceptions may be granted by the AO, following NEPA analysis, if no feasible alternative exists.

ROPs Specific to Areas of Critical Environmental Concern

The following four ROPs apply to the Fortymile ACEC.

ROP Wild-11[2] Applicants proposing to conduct surface-disturbing activities or other intensive activities will, at the determination of the AO, be required to submit an approved plan (Caribou

[2] Applicable to the Steese, Fortymile, and White Mountains ACECs and the White Mountains Wildlife Conservation Area.

and Dall Sheep Impact Assessment and Mitigation Plan) describing methods to minimize impacts to caribou and Dall sheep and their habitat. This plan must describe the proposed project, the design and mitigation alternatives considered, the amount and quality of habitat to be affected, the mitigation and restoration to be applied, the residual impacts predicted, and the monitoring to be undertaken to confirm mitigation success.

ROP Wild-12[2] Permanent roads will generally not be allowed (although long-term temporary roads may be) and roads will generally not be open to the public. Roads will be of the lowest practical profile. Road use may be restricted during caribou calving, postcalving, or Dall sheep lambing. Road construction will not be permitted if other means of access is practical (such as aircraft or winter ice-road). Facilities within ACECs that require year-round access will be located in forested areas where practical. Permitted aircraft will follow a minimum flight level of 1,500 feet above ground level, except at landing and takeoff and when it would compromise safety. The AO may allow exceptions to these access requirements where impacts to caribou and Dall sheep are adequately minimized and where other resource considerations are of higher priority.

ROP Wild-13[2] To minimize habitat loss, the surface disturbance and the aerial extent of facilities will be minimized. The amount of cumulative vegetation clearing and surface disturbance will be minimized through an integrated review of planned disturbance between all land users.

ROP Wild-14[2] Reclamation and revegetation of disturbed areas will be required to meet performance standards set in site-specific reclamation plans, such as a required plant cover (percent) within a certain number of years before a performance bond is released.

Priority Raptor ROPs

Priority raptor species are peregrine falcon, gyrfalcon, bald eagle, and golden eagle. Nesting seasons are defined as: From April 15 through August 15 for bald eagles, golden eagles, and peregrine falcons; and, from March 15 through July 20 for gyrfalcons. Nesting season dates apply to ROP Wild-16 through ROP Wild-20.

ROP Wild-15 To minimize the direct loss of priority raptor foraging habitat, all reasonable and practicable efforts will be made to locate permanent facilities as far from priority raptor nests as feasible and to minimize habitat loss to the extent feasible. Of particular concern for avoidance are ponds, lakes, streams, wetlands, and riparian habitats.

ROP Wild-16 To minimize disturbance to nesting priority raptors, aircraft authorized by the BLM are required to maintain an altitude of at least 1,500 feet above ground level when within one-half mile of priority raptor nesting sites during nesting season. This protection is not intended to restrict flights necessary to conduct wildlife surveys satisfying wildlife data collection requirements.

ROP Wild-17 To reduce disturbance to nesting priority raptors, campsites authorized by the BLM, including short- and long-term camps and agency work camps, must be located at least 500 meters from any known priority raptor nest site during the nesting season. Exceptions may be granted by the AO if no feasible alternative exists.

ROP Wild-18 Authorized human activity within 500 meters of priority raptor nest sites will be minimized during the nesting season. The cumulative number of authorized visits (defined as each day in which work is done within 500 meters of a nest site) to any nest site per nesting season, by all authorized users, must be limited to three visits per nest site. Exceptions may be granted by the AO if no other feasible alternative exists.

ROP Wild-19 To reduce disturbance impacts to priority raptors, motorized ground-vehicle use must be minimized within one mile of any known priority raptor nest during the nesting season. Such use is prohibited within one-half mile of nests during the nesting season, unless an exception is granted by the AO.

ROP Wild-20 Construction within one-half mile of known priority raptor nests is prohibited during the nesting season. No facilities that will be used or accessed during the nesting period (including the area of associated human activity by facility users) can be constructed within one-half mile of known priority raptor nesting sites. Exceptions may be granted by the AO if no feasible alternative exists.

2.7.2. Fluid Mineral Leasing Stipulations

The following leasing stipulations would be applied to any lease sales in the Eastern Interior Planning Area.

Table 2.6. Fluid Mineral Leasing Stipulations

Stipulation	Areas where Stipulations Apply	Exception, Modification, Waiver
Goal: Prevent avoidable damage from proposed land uses to habitats supporting Special Status Species animals and plants, and their habitats.		
Stipulation 1: The lease area may now or hereafter contain Special Status Species or their habitats. BLM may require applicants to avoid or minimize impacts to these species pursuant to BLM policy and Endangered Species Act consultation.	Areas open to fluid mineral leasing	**Exception:** None **Modification:** None **Waiver:** None
Goal: When authorizing fluid leasable minerals actions ensure that goals to protect other resource values in the planning area are met to the extent possible.		
Stipulation 2: Upon abandonment or expiration of the lease, all fluid mineral-related facilities will be removed and sites rehabilitated to as near the original condition as practicable, subject to the review of the AO.	Areas open to fluid mineral leasing	**Exception:** The AO determines that it is in the best interest of the public to retain some or all facilities. **Modification:** None **Waiver:** None
Stipulation 3: Exploratory drilling will be limited to temporary facilities such as ice pads, ice roads, ice airstrips, and temporary platforms.	Areas open to fluid mineral leasing	**Exception:** The AO may grant an exception if the lessee demonstrates that construction of permanent facilities such as gravel airstrips, storage pads, and connecting roads is environmentally preferable or that exploring from temporary facilities is not practical or economically feasible. **Modification:** None **Waiver:** None
Goal: Maintain and protect aquatic habitat to support populations of well-distributed native fish populations.		

Stipulation	Areas where Stipulations Apply	Exception, Modification, Waiver
Stipulation 4: Drilling is prohibited in fish-bearing lake and rivers and streams within the active floodplain.	Fish-bearing rivers, streams, and lakes	**Exception:** The AO may grant an exception if the lessee demonstrates that impacts would be minimal or there is no feasible or prudent alternative. **Modification:** None **Waiver:** None
Goal: Minimize impacts to wildlife species from BLM-authorized activities.		
Stipulation 5: No exploration activities from May 10 through June 1 in Dall sheep habitats and from May 15 through July 15 in caribou calving/postcalving habitat. Construction of production facilities and production activities may occur (no work over rigs).	Identified caribou calving/postcalving and Dall sheep habitats	**Exception:** The AO may grant an exception if the lessee demonstrates that calving caribou or Dall sheep are not currently using the area. **Modification:** Season may be shortened or extended based on actual occupancy of the area. **Waiver:** This stipulation may be waived if caribou migratory patterns change and the areas are no longer used for calving.
Stipulation 6: No exploration or development activities within 500 meters of active priority raptor nests from April 15 through August 15 (only March 15 through July 20 for gyrfalcon nests).	Areas open to fluid mineral leasing	**Exception:** The AO may grant an exception if the lessee demonstrates that impacts would be minimal or there is no feasible or prudent alternative. **Modification:** Season may be adjusted based on actual nest occupancy. **Waiver:** None
Stipulation 7: No motorized ground-vehicle use or facility construction within a half mile of any known priority raptor nests from April 15 through August 15 (only March 15 through July 20 for gyrfalcon nests).	Areas open to fluid mineral leasing	**Exception:** The AO may grant an exception if the lessee demonstrates that impacts would be minimal or there is no feasible or prudent alternative. **Modification:** Season may be adjusted based on actual nest occupancy. **Waiver:** None

2.8. Comparison of Impacts

The following table summarize the impacts that could occur in the Fortymile Subunit due to implementation of the RMP. This table only addresses impacts from the programs discussed in this summary document. For a full disclosure of impacts, see the Eastern Interior Draft Resource Management Plan and Environmental Impact Statement (BLM 2012).

Table 2.7. Fortymile Subunit: Comparison of Impacts

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
Fish and Aquatic Species	Fish and aquatic resources would be primarily affected by surface-disturbing activities which alter stream channels, remove or damage riparian vegetation, or result in soil erosion and sedimentation to aquatic habitat. Activities causing extensive stream channel or riparian alteration would likely result in unavoidable loss of fish and aquatic habitat, with both short- and long-term adverse impacts. Species affected would typically be Arctic grayling and whitefish species. Effects from recreation would be minimal under all alternatives. Invasive species can adversely effect fish and aquatic resources through habitat change, predation, parasitic behavior, disease, competition, and hybridization. Initially, adverse impacts would be localized since the distribution of invasive species would be highly localized; if invasive species became widely established, however, major adverse impacts would be expected. The initial introduction of aquatic invasive species into the planning area would have adverse impacts at the local level; as time progressed long-term, major adverse impacts would be expected as invasives spread across the planning area. Measures proposed in the RMP aimed at limiting the introduction and spread of invasive species would benefit fish and aquatic resources. Management to avoid or minimize impacts to wilderness characteristics would potentially benefit fish and aquatic resources by minimizing surface-disturbing activities and decreasing recovery time from disturbance. Wildland fire directly and indirectly impacts fish populations and their prey through increased siltation, and changes in water quality and temperature. Wildland fire can change the nutrient input to water systems and changes to permafrost status can lead to altered hydrology. Fish will generally re-invade burned areas rapidly where movement is not limited by barriers. Fish population recovery generally tracks the increase in primary and secondary production that occurs in the early postfire period. Where sediment is continually delivered into the stream, there could be short-term negative effects on fish and macro-invertebrate communities.			
	No Riparian Conservation Areas (RCAs) are identified.	11 RCAs would provide additional protection to high priority fish habitat.	One RCA would be identified, but would have limited effect as it includes very little BLM land.	No RCAs are identified.
	Mining could occur on 10,000 acres of existing claims, covering 75 stream miles. Approximately 970 acres (14 stream miles) could be directly disturbed by placer mining. Both suction dredging and placer mining would impact fish. Impacts from suction dredging would be localized and minor assuming active spawning areas are avoided. Impacts from mining would be low to moderate, but could have long-term effects resulting in decreased levels of fish populations at the local level. This	Mining could occur on forty-seven percent of the subunit, or 1,622 stream miles, one percent of which are within RCAs. Approximately 1,200 acres (17 stream miles) could be directly disturbed by placer mining. Suction dredging and placer mining would affect impact fish over a larger area. The likelihood of impacts would be greatest in areas of medium to high mineral potential. Over 800 miles of stream with medium to high mineral potential and forty-four percent of the stream miles within the subunit would be open to locatable minerals. Impacts may be low	Mining could occur on seventy-one percent of the subunit, or 2,430 stream miles, none within RCAs. Approximately 1,200 acres (18 stream miles) could be directly disturbed by placer mining. Suction dredging and placer mining would affect impact fish over a slightly larger area. Over 1,200 miles of stream with medium to high mineral potential and sixty-six percent of the stream miles within the subunit would be open to locatable minerals. Impacts may be moderate with long-term (10 to 20 years) effects. This would result in decreased	Mining could occur on ninety-three percent of the subunit, or 3,338 stream miles. Approximately 1,400 acres (21 stream miles) could be directly affected by placer mining. Over 1,400 miles of stream with medium to high mineral potential and ninety percent of the stream miles within the entire subunit would be open to locatable minerals. Impacts to fish and aquatic resources in this alternative may be moderate with long-term (10 to 20 years) effects. This would result in decreased levels of fish populations and habitat at local and potentially subunit levels. Alternative D would have the greatest potential for adverse impacts on

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
	alternative likely provides the greatest protection to fish and aquatic resources because disturbance would be limited to fewest acres and stream miles. Trail proliferation and cross-country OHV use resulting in increased erosion and sedimentation could have moderate, adverse short- and long-term impacts on fish and aquatic resources. Impacts from OHV use would be higher than other alternatives.	to moderate with long-term (10 to 20 years) effects. This would result in decreased levels of fish populations and habitat at the local level. Based on the amount of potential disturbance, adverse impacts to fish and aquatic habitat would be greater than under Alternative A and less than Alternatives C and D. OHV use would be restricted to existing routes and thirty percent of the subunit would be closed to summer OHV use. This Alternative would provide the greatest protection and Impacts from Travel Management would be minimal.	levels of fish populations and habitat at the local level. Based on the amount of potential disturbance, adverse impacts to fish and aquatic habitat under this alternative would be greater than under Alternative A and B, but less than Alternative D. Effects from Travel Management would be similar to Alternative B, although only six percent of the subunit would be closed to summer OHV use.	fisheries and aquatic resources. Cross-country OHV use would be allowed in ninety-seven percent of the subunit. Only three percent would be closed to summer use of OHVs. Unauthorized proliferation of trails may increase with a resulting increase in erosion and sediment impacts. Travel Management could have minor, long-term adverse impacts on fish and aquatic habitats. Effects would be higher than Alternatives B and C, but less than Alternative A.
	The Fortymile WSR is closed to mineral entry and leasing, except for valid existing claims. Fish and aquatic species would benefit as habitat generally remains intact.	Effects from management of the Fortymile WSR would be similar to Alternative A. Dome and Gold Run Creeks would be recommended suitable for designation as WSRs, benefitting fish and aquatic resources because of development limitations. Designation of the Fortymile ACEC would provide additional protection to fish habitat.	Effects from management of the Fortymile WSR would be similar to Alternative A. The Fortymile ACEC would be designated. The ACEC would be smaller and management less protective than under Alternative B, but its designation would still benefit fish and aquatic species due to the increased resource protection within the ACEC.	Management of the Fortymile ACEC would be less protective. However, fish and aquatic resources could potentially benefit from increased protections the ACEC. Adverse impacts could occur in the "scenic" segments of the Fortymile WSR which would be open to locatable minerals.

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
Vegetation	Management to maintain soil, water quality, fish habitat, Special Status Species, visual resources, wilderness characteristics, subsistence, and special designations will generally benefit natural diversity of vegetative communities. The effects of leasable minerals, salable minerals, lands and realty, and renewable energy is predicted to be small due to the limited activity expected. The ROPs would reduce potential impacts to vegetative communities in Alternatives B, C, and D. RCAs would reduce impacts to riparian vegetation where they are identified. The potential impact of introduction and spread of non-native plants (NIP) is large and most often occurs in conjunction with surface-disturbing activities or use of motorized vehicles. Requirements for weed-free hay, mulch, seed, and gravel sources would reduce potential for establishment of NIP. Cross-country OHV use, especially in recently burned areas, may represent the largest potential impact to vegetative communities, through the spread of NIP. Wildland fire is the major determinant of vegetative communities. A natural fire regime is considered desirable and is maintained for most of the planning area through the Limited Management Option. Areas near the road system and communities are typically within Modified, Full, or Critical fire management options and fire suppression will artificially modify the fire regime in these areas. Greater public presence and establishment of human infrastructure, which could result from decisions in this plan, often leads to greater fire suppression which can cause deviations away from normal fire regime. Effects to vegetation of a longer fire return interval include older stand ages, changes in community composition, trend towards less productivity and growth, and larger areas of similar vegetation. Climate change is predicted to result in major changes to vegetation in the next 30 years as fire frequency increases. Activities which facilitate the spread of NIP will compound the effects of climate change and the regional increase in prevalence of NIP.			
	Impacts from locatable minerals include both direct loss of habitat and changes in human use due to improved access. Placer mining disturbs riparian and near-stream vegetation and the stream channel which may result in downstream effects on riparian vegetation. Mining typically changes the vegetation from late seral to early seral communities. Recovery of habitats is highly variable and may be very slow. Aufeis formation can result in erosion and prevent or slow vegetation growth. It may require 50 years or more (following end of mining) for riparian habitat quality to approach pre-mining conditions. Lode mining disturbs upland vegetation, results in permanent change to the landscape, and typically requires high-standard road access. In addition to direct loss of habitat, roads can cause changes to vegetation through melting permafrost, obstruction or change in drainage, aufeis formation, erosion and deposition into streams, and dust deposition on adjacent vegetation. NIP are frequently spread along roadways. Roads facilitate access to areas which may previously have been remote and inaccessible, resulting in indirect impacts.			
	Effects from mining would be limited to 10,000 acres of existing mining claims.	976,000 acres would be open to locatable minerals. Mining could occur on new claims in these areas. Effects would be higher than Alternative A.	1,468,000 acres would be open to locatable minerals. Mining could occur on new claims in these areas. Effects would be higher than Alternatives A and B.	1,920,000 acres would be open to locatable minerals. Mining could occur on new claims in these areas. Effects would be highest in this alternative.
	Recreational facilities impact vegetation directly from loss of habitat, and indirectly through visitor use. High levels of visitors can impact vegetation through trampling. Recreationists using motorized vehicles typically have larger impacts to vegetation, both in area impacted and degree of modification. Effects of non-motorized recreation typically occurs in only limited areas of concentrated use. Impacts to vegetation from snowmobiles would be low and noticeable impacts limited to local areas of heavy use. Summer use of OHVs both on and off trails can affect the vegetation including: crushing and breakage of shrubs, exposure of mineral soil, changes in drainage patterns, compression of the organic layer, and increased thaw depth. In permafrost soils, this can lead to thermokarsting and erosion. In user-created trails, vegetative cover and composition may change or vegetation may be totally lost in the trail tread. Trails with exposed soil (whether managed or user-created) serve as routes of spread for NIP.			

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
	Effects from OHV use would be the highest due to the lack of OHV designations in the subunit.	Effects from OHV use would be the lowest as summer OHV use would be limited existing routes on 1,459,000 acres and not allowed on 618,0000 acres.	Effects from OHV use would be slightly higher than Alternative B as off-trail use could occur for game retrieval and only 121,000 acres would be closed to summer OHV use.	Effects from OHV use would be higher than Alternatives B and C, but lower than Alternative A. Only 54,000 acres would be closed to summer OHV use. Cross-country use by vehicles weighing 1,500 pounds or less could occur on 2,023,000 acres.
Wilderness Characteristics	Not Addressed	Wilderness characteristics would be protected on forty-nine percent of the subunit. Lack of activity and other management actions could indirectly protect wilderness characteristics on the remaining fifty-one percent of the subunit. Naturalness may be impacted over the short-term in localized areas.	Wilderness characteristics would be protected on twenty-four percent of the subunit. Lack of activity and other management actions could indirectly protect wilderness characteristics on the remaining seventy-six percent of the subunit. Naturalness may be impacted over the short-term in localized areas.	Wilderness characteristics would be protected on three percent of the subunit. Lack of activity and other management actions could indirectly protect wilderness characteristics on the remaining ninety-seven percent of the subunit. Naturalness may be impacted over the short-term in localized areas.
Wildlife	Management to maintain soil and water resources, Special Status Species, vegetative communities, visual resources, wilderness characteristics, and subsistence will generally benefit wildlife and their habitat, as would management of NIP. The effects of solid leasable minerals, salable minerals, lands and realty, and renewable energy are anticipated to be small due to the limited activity expected. The ROPs (Section 2.7) will apply in Alternatives B, C, and D; and, would reduce potential impacts to habitat and many wildlife species. Measures to minimize impacts to fish habitat will generally benefit wildlife and habitat because of the high value of riparian habitats to many species. RCAs and High Priority Restoration Watersheds will reduce impacts to riparian vegetation, especially stream bank vegetation, resulting in lesser impacts to wildlife in general, and more specifically to BLM-Alaska sensitive species and Bird Species of Conservation Concern. NIP have the potential for impacts to wildlife due to alteration of habitat. Introduction and spread of non-native animal species is also a potential impact. All action alternatives include measures to monitor and control the spread of invasive species. These measures will reduce impacts, but some increased abundance of NIP are inevitable and loss of habitat for native wildlife species can be expected. Roads and trails (and associated vehicle use) are recognized as the primary avenues of spread of NIP. Alternatives which minimize creation of roads and trails, and off-trail summer use of OHVs will reduce potential spread and impacts of NIP. Treatment of NIP infestations may impact wildlife habitats, but generally less than continuation and spread of NIP at the site.			
	Not Addressed	A ROP which does not allow use of domestic sheep, goats, or llamas as pack animals by BLM-permittees (such as commercial outfitters) would reduce the potential for disease transmission to Dall sheep. Members of the public, however, could use these pack animals (except in Alternative B) and potential impacts to Dall sheep are considerable.		

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
Wildlife	The subunit is closed to leasable minerals.	Although forty-seven percent of the lands would be open to leasable minerals, many sensitive wildlife habitats would be closed. If exploration occurred, there may be localized impacts to wildlife and habitat.	Effects would be similar to Alternative B, except a larger area and more of the caribou calving habitat would be open to leasing. No leasing or exploration is anticipated, however.	Effects would be similar to Alternatives B and C, except a larger area and most of the caribou calving habitat would be open to leasing. No leasing or exploration is anticipated, however.
	This alternative would minimize the potential for impacts to wildlife. Mining is occurring only on existing mining claims (10,000 acres). Current mining is mostly suction dredging and small placer mines and is concentrated along and near the road- and river-accessible portions of the Fortymile WSR. These effects are mostly local in nature.	Although forty-seven percent of the lands would be opened to locatable minerals, many sensitive wildlife habitats would remain closed. Impacts on caribou and Dall sheep would be minor. Increased levels of suction dredging may result in disturbance to nesting peregrine falcons. Although the increase in mining activity is predicted to be small, the location of mining may change, requiring access (roads and trails) which may have larger impacts on wildlife. Application of ROPs would result in relatively minor reductions in impacts.	Effects would increase as seventy-one percent of the lands would be opened. Potential impacts to caribou calving and postcalving habitats will be greater, but the most important caribou habitats on BLM lands would remain closed, as would Dall sheep range and mineral licks. Increased levels of suction dredging may result in disturbance of more peregrine falcon nest sites. Although, the increase in mining activity is predicted to be small, new mines may be initiated in remote areas, requiring access which may have larger impacts on wildlife. Application of ROPs would result in relatively minor reductions in impacts.	Ninety-two percent of the lands would be opened, including most of the caribou calving/postcalving habitat on BLM lands. Of the Fortymile caribou herd's recent calving/postcalving range, the only large area closed to locatable minerals would be within the Yukon-Charley Rivers National Preserve. Seventy percent of the area most used for caribou calving will be open to mineral entry. At predicted levels of mining, impacts on caribou would be modest during life of the plan. The increase in mining, however, could be larger than predicted or located in key habitats, resulting in larger impacts. Increased levels of suction dredging may result in disturbance of more peregrine falcon nest sites. Despite the ROPs, disturbance of caribou, sheep, and undocumented raptor nests will still occur.
	Recreation affects wildlife primarily along the Taylor Highway and road-accessible river sections. Wildlife is displaced, at least temporarily, by recreational activities, and that effect is greater at high use sites. Disturbance of nesting	Impacts would be similar to Alternative A. The Fortymile SRMA (792,000 acres) has specific management objectives and prescription settings. Most of the SRMA would be managed for Semi-Primitive or Backcountry settings. This high proportion of Semi-Primitive	Only the Fortymile WSR Corridor is included in the SRMA. The smaller SRMA would probably result in little difference in management, use or effects, in the near future. However, more accessible portions will likely see greater recreation-related changes, and	As in Alternative C, only the Fortymile WSR Corridor is included in the SRMA. Some sections would be managed to allow greater recreation-related change to the landscape (e.g., more Frontcountry and Middlecountry), resulting in corresponding increases to impacts to wildlife, particularly in

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
	raptors can potentially lead to nest abandonment or reduced survival of nestlings and likely occurs at times along the Fortymile River. Recreational OHV users are becoming more abundant, traveling further and expanding the zone of impact, though use and impacts are still concentrated closer to roads.	and Backcountry management will limit impacts to wildlife. Potential impact to nesting raptors may be reduced by implementation of the ROPs (Section 2.7).	access could be developed to some currently remote areas for purposes such as mining. Objectives for more intensive use in portions of the Fortymile WSR Corridor would result in somewhat greater changes to wildlife habitats than in Alternative B. Impacts to nesting raptors may be reduced due to the ROPs.	the more accessible portions of the subunit. Impacts to nesting raptors may be reduced due to the ROPs.
	There are no OHV designations and OHV use is relatively unrestricted outside of the Fortymile WSR Corridor. The summer cross-country use of OHVs has resulted in a proliferation of trails leading to local habitat impacts and disturbance impacts. The network of user-created, unsustainable trails can be expected to grow substantially under this alternative, with corresponding increase in impacts to wildlife.	Summer use of OHVs would be prohibited in Semi-Primitive areas (thirty percent). On the remainder of the subunit, summer use of OHVs would be limited by weight (1,000 pounds curb weight; 1,500 pounds in Fortymile subunit) and to existing routes. These restrictions would greatly reduce potential impacts to wildlife through minimizing proliferation of new trails and reducing impacts to wildlife habitats from off-trail use.	Summer OHV use on existing routes would be allowed in essentially the entire subunit, except the Semi-Primitive portions of the Fortymile WSR Corridor (six percent). The increase in impacts to wildlife would be small, because existing routes are very limited in the portion of the corridor which would be opened to OHV use (head of Hutchinson Creek). New managed trails that may be created, would be routed to minimize impacts to wildlife. Effects relative to Alternative B is dependent on extent of new access created for other activities.	The area where summer OHV use would be allowed would expand relative to Alternative C, due to less area in Semi-Primitive classifications (three percent). In areas open to summer use, OHVs would be allowed to travel cross-country. Impacts under this alternative would be similar to Alternative A. Although summer OHVs would be limited to 1,000 pounds curb weight (1,500 pounds in Fortymile subunit), an expanding network of user-created trails can be expected.
	No ACECs exist, meaning special management considerations are not afforded to sheep and caribou.	The Fortymile ACEC (732,000 acres) would be managed to protect Fortymile caribou calving/postcalving and Dall sheep habitat. The ACEC would be closed to leasable and locatable minerals. Potential impacts to caribou would be small, but larger than in	A smaller Fortymile ACEC would be designated (547,000 acres). Portions of the ACEC would be open to mineral entry and leasing. Relative to Alternative B, this alternative would increase the potential	546,000 acres would be designated as the Fortymile ACEC. The vast majority of the ACEC, including the most highly used caribou calving habitat and all Dall sheep habitat, except mineral licks, would be open to locatable minerals. Some fragmentation of habitats and reduction in habitat quality for

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
		Alternative A (which has no ACEC, but where all caribou habitat is closed to locatable minerals).	for fragmentation of caribou calving/postcalving habitat.	caribou and Dall sheep are likely under this alternative.
Lands and Realty	The primary effect would be the potential for requiring relocation, redesign, or denial of realty authorizations to protect other resources.			
	Miners working state claims in the "wild" segments of the Fortymile WSR would have to camp below ordinary high water, making their camps more susceptible to damage from high water.	Miners working state mining claims in all segments of the Fortymile WSR would have to camp below ordinary high water, making their camps more susceptible to damage from high water.	Same as Alternative A.	Miners working state mining claims in all segments of the Fortymile WSR could obtain permits for long-term camping on BLM lands. Camps could be situated in the uplands, eliminating potential damage to camps from high water.
Leasable Minerals	The subunit is withdrawn from the mineral leasing laws. This would have little effect due to the lack of resources on BLM lands.	Alternatives B, C, and D would open 976,000 million to 1,918,000 acres to fluid and solid mineral leasing. Little interest in exploration and no interest in leasing is anticipated in any alternative. These decisions would have no effect due to the lack of these resources on BLM-managed lands and a decision to defer coal leasing.		
Locatable Minerals	Potential for exploration and development would be limited to 10,000 acres of existing mining claims. Mining activity would likely decrease as there would be no opportunities to stake new federal claims to offset claim attrition.	1,100,000 acres would remain closed. Closures in the Fortymile River would have the most impact. The Fortymile River has high mineral potential. Operating mining claims in the drainage currently exist, but if they were lost no additional staking could be made. Closures would constrain extraction of the minerals and their benefits to society would remain unavailable for the foreseeable future. Additionally, the infrastructure that typically accompanies development would not occur.	608,000 acres would remain closed. Although substantially more area would be opened to locatable minerals, impacts would be similar to Alternative B as the higher potential and more accessible areas in the Fortymile WSR Corridor would remain closed.	145,000 acres in the "wild" and "recreational" segments of the Fortymile WSR Corridor would remain closed, limiting development in these high potential areas. The "scenic" segments of the Fortymile Corridor would be opened, allowing for staking of new claims in one high potential area with relatively good access. Extraction of minerals would be less constrained than under other alternatives.

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
Recreation	Land use authorizations could result in additional development that may adversely affect those areas managed for Primitive or Semi-Primitive recreation experiences. Land use authorizations could also result in increased access opportunities. The Fortymile Subunit would continue to be managed for a variety of recreational opportunities. Existing facilities would be maintained. These actions would directly affect recreation management by ensuring that land- and water-based recreational opportunities continue to exist in both designated and undesignated areas. Measures to protect natural resources would generally benefit recreation by enhancing scenic quality and opportunities for fish and wildlife related recreation. The protection and interpretation of cultural sites would provide beneficial experiences for those seeking historical and cultural appreciation opportunities. Visual Resource Management would have would have long-term, beneficial impacts on recreational activities that include scenic qualities as part of the experience. Negative effects may occur due to restrictions on trail, site, or facility development to avoid sensitive areas, protect viewsheds, or to prevent resource degradation. Resource development activities such as timber harvest, land use authorizations, gravel pits, or mining could result in increased trails, potential dislocation of wildlife and alteration of scenic viewsheds. Gravel pits may also provide parking and motorized free-play areas. These could impact recreation resources and experiences of naturalness and closeness to nature in Semi-Primitive and Backcountry Zones. In Middlecountry and Frontcountry Zones, impacts would be less due to the more developed nature of these settings.			
	Operators working state mining claims in the "wild" segments of the Fortymile WSR must camp below ordinary high water, because the BLM does not allow long-term camping permits. The entire camp, as well as the suction dredging operation, is visible to recreational users. This may negatively effect those users anticipating a Primitive recreational experience on the "wild" segments of the Fortymile River.	The authorization of long-term camping permits would not be allowed in any parts of the Fortymile WSR Corridor. This restriction would impact the scenic viewshed and Primitive recreational experiences on any segment of the river where suction dredging was occurring on state mining claims. Effects would be similar to Alternative A, but would extend to the "scenic" and "recreational" segments of the Fortymile.	Effects from long-term camping would be the same as Alternative A.	The authorization of long-term camping permits would be allowed in all segments of the Fortymile WSR Corridor. Camps associated with suction dredging could be located on the uplands. Recreational users of the river would still see the suction dredging operation, but camps would be screened from view, reducing impacts to scenic quality. The recreational experience on the "wild" segments of the Fortymile would likely be of a more Primitive nature.
	Mining and associated infrastructure could compromise the experiences of recreation users whose expectations include a high degree of solitude and tranquility, within a naturally-appearing landscape. Adverse impacts could also arise from intrusive	Impacts would be similar to, but somewhat greater than Alternative A as mining activity increases in response to opening 976,000 acres to locatable minerals. These effects would mostly occur in areas of dispersed recreation use. Areas that currently have the most concentrated recreation use (e.g.,	Impacts would be similar to, but slightly greater than under Alternatives A and B. 1,468,000 acres would be opened to locatable minerals. As in Alternative B, areas of concentrated recreational use would remain closed to new mineral entry.	Impacts would be similar to, but slightly greater than under Alternatives A, B and C. 1,920,000 acres would be open to locatable minerals. The "scenic" segments of the Fortymile WSR would be opened to new mineral entry. Unlike the other alternatives, there would be effects from new mineral entry

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
	noise and altered viewsheds. Impacts would be limited to 10,0000 acres of existing mining claims, some of which are in the Fortymile WSR Corridor.	Fortymile WSR Corridor, Fort Egbert Historic Site, and Eagle Recreational withdrawal) would remain closed, but mining could occur on existing claims.		within portions of the Fortymile WSR Corridor.
	The Fortymile WSR Corridor (249,000 acres) would be managed as an SRMA. Facility enhancements (e.g., toilets, boat ramps) may be added to accommodate recreation demand.	Ninety-eight percent of the Fortymile SRMA (792,000 acres) would be managed for Semi-Primitive (seventy-eight percent) or Backcountry (twenty percent) recreation settings. A much greater portion of the subunit would be reserved for the Semi-Primitive experiences of non-motorized use. Construction of facilities would be limited. These decisions would provide high-quality recreation opportunities for those users who desire an experience characterized by solitude, tranquility, and self-reliance.	There would be less facility enhancements and fewer restrictions on OHV use in the smaller SRMA (249,000 acres). Slightly more motorized opportunities would be available. Similar to Alternative B, management in the SRMA would provide for multiple recreation activities within a variety of recreation settings. ninety-one percent of the SRMA would be managed for Semi-Primitive (forty-eight percent) or Backcountry settings (forty-three percent). Like Alternative B, Semi-Primitive accounts for the largest setting. Effects on recreation from these settings would similar to those described under Alternative B.	The SRMA would include the same lands as Alternative C, but management of the SRMA would differ. Similar to Alternatives B and C, management in the SRMA would provide for multiple recreation activities within a variety of recreation settings. Only twenty-two percent of the SRMA would be managed as Semi-Primitive. Consequently, a much greater portion of the Subunit is reserved for the Backcountry and Middlecountry activities of motorized use. More motorized opportunities would be available and enhancement of recreation facilities would be more likely than in Alternative C.
	Not addressed.	Recreation users and BLM-permittees could not use domestic goats, sheep, or camelids as pack animals in Dall sheep habitat.	There would be no prohibition on the use of domestic goats, sheep, and camelids as pack animals for casual recreational use. However, these animals could not be used by BLM-permittees in Dall sheep habitat.	
	There are no OHV designations. Travel within the Fortymile WSR Corridor is limited by weight, while travel outside of the corridor is generally unrestricted. Resource and user conflict	The OHV designation would be limited. Semi-Primitive areas (617,000 acres) would be closed to summer OHV use. More area would be made available for recreational users seeking primitive, non-motorized forms	The OHV designation would be limited. Effects would be similar to Alternative B, except more area would be available for recreational activities that involve summer OHV use, because the Semi-Primitive	The OHV designation would be limited. Effects would be similar to Alternative B, except more area would be available for recreational activities that involve summer OHV use. The Semi-Primitive area (54,000),

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
	issues would not be addressed, possibly resulting in emergency closures to motorized use. There could be long-term, detrimental impacts to scenic viewsheds that enhance the quality of recreational experiences. While Alternative A would offer the most opportunities for motorized recreational activities; fewer opportunities would exist for semi-Primitive, non-motorized experiences.	of recreation. In contrast, less area would be available for those users seeking motorized forms of recreation. In the remainder of the subunit summer use of OHVs would be limited by weight and to existing routes. These management actions would negatively impact those users who utilize OHVs for accessing remote areas, and by those retrieving game. Alternative B offers the least opportunity for recreational activities involving motorized travel.	area would be smaller (120,000 acres). In the remainder of the subunit, summer use of OHVs would be limited by weight and to existing routes, except for game retrieval. The would provide a direct benefit to recreational hunters who could retrieve legally harvested big-game animals off of pre-existing routes.	which limits summer motorized use, encompasses only three percent of the subunit, compared to six percent in Alternative C, thirty percent in Alternative B and none in Alternative A. These decisions could potentially diminish the recreational experience of users seeking a primitive, non-motorized type of experience, while increasing the area available for motorized use. There could be an increase in user conflict issues.
	No ACECs are designated.	Designation of the Fortymile ACEC (732,000 acres) would maintain or protect wildlife habitat, potentially resulting in beneficial impacts on wildlife viewing and hunting. Negative effects may also result, if additional restrictions are placed on recreational activities. Designation of Gold Run and Dome Creek as WSRs, would provide long-term, beneficial experiences for individuals seeking historical and cultural appreciation opportunities.	546,600 acres would be designated as the Fortymile ACEC. Effects would be the similar as those discussed under Alternative B, except less area would be designated to protect caribou and Dall Sheep habitat.	546,200 acres would be designated as the Fortymile ACEC. Effects would be the similar as those discussed under Alternative B, except management in the ACEC would be less protective of caribou and Dall sheep habitat. Thus, less potential would exist for beneficial impacts on wildlife viewing and hunting.

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
Travel Management	Mineral development has the potential to affect travel and transportation management through the expansion of the existing route network. The construction of winter roads and trails for mineral development would provide a direct benefit to OHV users through the enhancement of public access opportunities. These effects would be the highest under Alternatives C and D, and the lowest under Alternatives A and B. Management of the Fortymile WSR would impact travel in the "wild" segments where the construction of new roads, primitive roads, trails, or other provisions for overland motorized travel would not be permitted (BLM 8351 Manual).			
	Although the Fortymile WSR is managed as a SRMA, Recreation Opportunity Spectrum (ROS) classes are not established. ROS provides a framework for identifying the types of recreation activities to be managed for and is directly related to the travel management.	The ROS setting would maintain seventy-eight percent of the Fortymile SRMA as Semi-Primitive, catering to non-motorized summer use and the winter-use of snowmobiles. The remaining twenty-two percent would provide opportunities for summer OHV use, but would limit use to existing routes. This alternative would limit travel management the most.	Forty-eight percent of the SRMA would be managed as Semi-Primitive. The remaining fifty-two percent would provide opportunities for summer OHV use but would limit use to existing routes, except for game retreival. This alternative would limit travel management less than Alternative B, but more than Alternatives C and D.	Twenty-two percent of the Fortymile SRMA would be managed as Semi-Primitive. The remaining seventy-eight percent would provide opportunities for summer OHV use, including cross-country travel. More opportunities would exist for motorized travel, compared to Alternatives B and C, but less than Alternative A.
	With no OHV limits outside of the Fortymile WSR Corridor, this alternative would provide the greatest opportunity cross-country motorized activities. For travelers seeking non-motorized forms of transportation, the Fortymile Subunit would continue to be managed to provide opportunities of a more primitive nature.	OHV designations would be established. Summer OHV use would be restricted to existing routes and vehicle weight on seventy percent of the subunit. Thirty percent would be closed to summer OHV use. Weight restrictions would apply to all areas during the winter. Restrictions would impact users by limiting OHV use where no limits have been in place before. Limitations imposed on summer-use of OHVs, may make some areas inaccessible, due to lack of existing routes. There would be a greater affect on non-local users who visit during the summer when OHV use is most restricted.	OHV designations would be established. Effects would be similar to Alternative B, except ninety-four percent of the subunit would be made available summer OHV travel and off route travel could occur to retrieve game. This would provide a direct benefit to recreational hunters who could retrieve legally harvested big-game animals off of existing routes. Impacts on travel management would be slightly less for this alternative, when compared to Alternative B.	OHV designations would be established. Ninety-seven percent of the subunit would be available for cross-country OHV travel, subject to weight limitations. Only three percent of the subunit would be closed to summer OHV use. Weight restrictions would apply to all areas during the winter. Unlike Alternatives B and C, cross-country travel would be allowed under this alternative. While more area is available to motorized users, less area is available for users seeking a primitive, non-motorized type of experience.
	Not addressed	Designation of the Fortymile ACEC could affect travel	Effects of ACEC designation would be the similar to	Effects of ACEC designation would be the similar to Alternative B,

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
		management if additional restrictions were placed on OHV use or trail construction. Impacts are expected to be negligible. Designation of Gold Run as a "wild" river would limit travel management options in the corridor.	Alternative B, except the ACEC would be smaller, resulting in less effect to travel management. Additionally, part of the ACEC would be open to mineral exploration and development. If mining activity occurred, additional travel routes could be established and be added to the trail network.	except the entire ACEC would be open to mineral exportation and development, increasing the potential for establishment of additional travel routes.
Wild and Scenic Rivers	Not addressed.	Gold Run and Dome Creek would be recommended suitable for designation as WSR, protecting their free-flow and ORVs until Congress made a decision on designation. surface-disturbing activities could affect water quality. Mining on existing claims in Dome Creek could destroy the historic mining values that make the creek eligible for designation and also impact its free-flow.	Gold Run and Dome Creeks would not be recommended as suitable for designation.	
Subsistence	Alternative A would not significantly restrict subsistence use by communities in and adjacent to the planning area, as impacts to subsistence resources would be minimal. Impacts to subsistence species are expected to be localized and temporary and are not expected to impact resources at the population level. No impacts to access by subsistence users are anticipated.	Alternative B would not significantly restrict subsistence use of or access to fish, wildlife and vegetative resources by residents in the subunit. Most impacts to subsistence resources would be beneficial, and any impacts by way of the limited amount of development allowed to occur under this alternative would be minimized by Fluid Mineral Leasing stipulations and ROPs (Section 2.7).	Alternative C would not significantly restrict subsistence use by communities in the planning area. Most impacts to subsistence resources and uses would be negligible, and any impacts from the limited amount of development allowed to occur would be minimized by the Fluid Mineral Leasing Stipulations and ROPs. Impacts to subsistence species would be localized and temporary, and not expected to impact resources at the population level. No impacts to access by subsistence users are expected to occur.	Alternative D, in and of itself, would not significantly restrict subsistence use by communities in or near the planning area given anticipated levels of development.

Program or Resource	Alternative A	Alternative B	Alternative C	Alternative D
	Alternatives A and B when combined with the cumulative case would not result in significant restrictions.		No reasonably foreseeable significant restrictions have been identified for Alternative C when combined with the cumulative case. Most habitat important to subsistence resources is within the Fortymile ACEC or afforded protection by other management prescriptions.	When combined with the cumulative case, Alternative D may result in a reasonably foreseeable and significant restriction of subsistence use for rural communities within the planning area if significant activity occurs within the calving grounds or other crucial habitat of the Fortymile caribou herd.

Acronyms and Glossary

AAC:	Alaska Administrative Code
ADEC:	Alaska Department of Environmental Conservation
ADF&G:	Alaska Department of Fish and Game
All-Terrain Vehicle (ATV):	A wheeled vehicle other than a snowmobile that is defined as having a curb weight of 1,000 pounds or less, maximum width of 50-inches or less, steered using handlebars, travels on three or more low-pressure tires, and has a seat designed to be straddled by the operator.
ANCSA:	Alaska Native Claims Settlement Act
ANILCA:	Alaska National Interest Lands Conservation Act
AO:	Authorized Officer
Area of Critical Environmental Concern (ACEC):	An area of public lands where special management attention is required to protect important historic, cultural, or scenic values, fish and wildlife or natural systems or processes, or to protect life and safety from natural hazards.
AS:	Alaska Statute
BLM:	Bureau of Land Management
CFR:	Code of Federal Regulations
Curb Weight:	The weight of a vehicle with a full tank of fuel and all fluids full, but with no people or cargo loaded. “Curb weight” is synonymous with “wet weight” and “operating weight”.
EIS:	Environmental Impact Statement
FLPMA:	Federal Land Policy and Management Act
Game retrieval:	Retrieval of legally harvested big game animals off of a designated trail is allowed within designated areas (Frontcountry and Middlecountry Zones only) and within the OHV limitations for the area. Individuals must have a punched harvest ticket. Up to three ATVs may participate in the retrieval of the legally harvested big game. Retrieval of big game may not exceed one mile from the designated trail. Legally harvested big game must be retrieved within 24 hours.
GVWR:	The total weight of the vehicle plus the maximum loaded carrying capacity of the vehicle as specified by the manufacturer (i.e., GVWR = weight of vehicle + fuel + passengers + cargo, as per manufacturers limitations). Pull-behind trailers are not included in the GVWR calculation for the vehicle.
NEPA:	National Environmental Policy Act

NIP: Non-native invasive plants

NPS: National Park Service

off-highway vehicle (OHV): Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: 1) any non-amphibious registered motorboat; 2) any military, fire, emergency, or law enforcement vehicle being used for emergency purposes; 3) any vehicle whose use is expressly authorized by the authorizing officer, or otherwise officially approved; 4) vehicles in official use; and 5) any combat or combat support vehicle when used for national defense (CFR 43 sec. 8340.05(a)). OHVs generally include dirt motorcycles, dune buggies, jeeps, four-wheel drive vehicles, snowmobiles, and ATVs. OHV is synonymous with Off-Road Vehicle (ORV), Utility Type (or Terrain) Vehicle (UTV), and All Terrain Vehicle (ATV). Aircraft are not OHVs.

ORV: Outstandingly Remarkable Value: As defined by the Wild and Scenic Rivers Act, an "outstandingly remarkable value" is the characteristic of a river segment that is judged to be a rare, unique, or exemplary feature that is significant at a regional or natural scale. Values can be recreational, scenic, geological, historical, cultural, biological, botanical, ecological, heritage, hydrological, paleontological, scientific, or research-related.

PLO: Public Land Order

POL: Petroleum, oils, and lubricants

RCA: Riparian Conservation Area

RMP: Resource Management Plan

RMZ: Recreation Management Zone

ROP: Required Operating Procedure

SHPO: State Historic Preservation Office

snowmachine, snowmobile: A motorized vehicle that is designed for use over snow that runs on a track or tracks and uses a ski or skis for steering, has a curb weight of 1,000 pounds or less, maximum width of 50-inches or less, steered using handlebars, and has a seat designed to be straddled by the operator. A snowmobile does not include machinery used strictly for the grooming of non-motorized trails.

SRMA: Special Recreation Management Area

SSS: Special Status Species

USFWS: United States Fish and Wildlife Service

VRM: Visual Resource Management

Wild and Scenic River (WSR): A river that is part of the National Wild and Scenic River System.

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Appendix A. Maps

1. Map 2: Land Status – Fortymile Subunit
2. Map 6: Riparian Conservation Areas and High Priority Restoration Watersheds - Fortymile Subunit Alternative B
3. Map 7: Riparian Conservation Areas and High Priority Restoration Watersheds - Fortymile Subunit Alternatives C and D
4. Map 26: Locatable and Leasable Minerals- Fortymile, Alternative B
5. Map 27: Leasable Minerals- Fortymile, Alternative C
6. Map 28: Locatable Minerals- Fortymile, Alternative C
7. Map 29: Leasable Minerals- Fortymile, Alternative D
8. Map 30: Locatable Minerals- Fortymile, Alternative D
9. Map 51: Fortymile Subunit – Travel Management, Alternative B
10. Map 52: Fortymile Subunit – Travel Management, Alternative C
11. Map 53: Fortymile Subunit – Travel Management, Alternative D
12. Map 62: Area of Critical Environmental Concern - Fortymile Subunit, Alternative B
13. Map 63: Area of Critical Environmental Concern - Fortymile Subunit, Alternative C
14. Map 64: Area of Critical Environmental Concern - Fortymile Subunit, Alternative D
15. Map 70: Eligible and Suitable Rivers- Fortymile Subunit, Alternative B
16. Map 74: Wilderness Characteristics - Fortymile Subunit, Alternative B
17. Map 75: Wilderness Characteristics - Fortymile Subunit, Alternative C
18. Map 76: Wilderness Characteristics - Fortymile Subunit, Alternative D
19. Map 90: Caribou Distribution
20. Map 91: Dall Sheep Distribution
21. Map 96: Leasable Mineral Potential
22. Map 97: Locatable Mineral Potential
23. Map 100: Subsistence Use Areas - Mammals – Fortymile Subunit
24. Map 101: Subsistence Use Areas – Fish – Fortymile Subunit
25. Map 111: Fortymile River System - Current Wild and Scenic Classification