



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

Anchorage Field Office  
6881 Elmore Road  
Anchorage, Alaska 99507

<http://www.blm.gov/ak/st/en/fo/ado.html>

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### Environmental Assessment

**Applicant:** Tesoro Iron Dog Snowmobile Race  
"Tesoro Iron Dog"

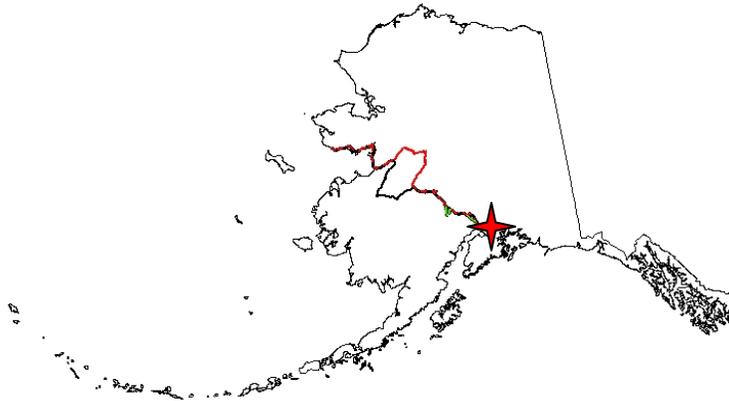
**Case File No.:** AA-057131

**Applicant:** Bill Merchant d/b/a Alaska Ultra Sport  
"Alaska Ultra Sport"

**Case File No.:** AA-083492

**Applicant:** Iditarod Trail Committee, Inc.  
"Iditarod Trail Sled Dog Race"

**Case File No.:** AA-060380



### Location:

Bureau of Land Management lands traversed by the above winter, *specialized recreational uses*.  
&  
Campbell Tract, Anchorage, Alaska

### Prepared By:

Bureau of Land Management, Anchorage Field Office  
February, 2008

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## 1.0. INTRODUCTION

Virtually roadless, modern-day interior Alaska's winter transportation needs are met by an ancient phenomenon unique to human habitation of the far-northern latitudes. Each winter throughout interior Alaska a network of winter trails appear along established travel routes between communities and subsistence harvest areas.<sup>1</sup> In ancient times and in the not too distant past, travel over these routes was by snowshoe or dog sled. Today the snowmobile<sup>2</sup> is a necessity of life in the far north and the preferred mode of travel over these ancient winter travel routes.<sup>3</sup>

At the beginning of the twentieth century, the United States Army, through the Alaska Road Commission, connected a sequence of the routes into an overland winter travel route from the ice-free port of Seward to the town of Nome.<sup>4</sup> The route brought mail and supplies to mining towns and other communities in interior and northwest Alaska. Historically known as the Iditarod Trail<sup>5</sup>, for the last three decades people have come from all over the globe to negotiate that route by foot, dog sled and snowmobile in contests and races that test the endurance and stamina of man, animal and machine.

As the sun returns to the far north, festivals begin in Alaska. They begin with an old style "Fur Rendezvous"<sup>6</sup> in Anchorage, and culminate with the "Nenana Ice Classic,"<sup>7</sup> and the beginning of spring. The races, which are the subject of this discussion, occur within that context.

Today, approximately 137 miles of the route traverse lands administered or managed by the Bureau of Land Management (BLM) and two parcels of BLM lands serve as staging areas for the races. The races occurring along the route in 2008 are: the Tesoro Iron Dog snowmobile race (Iron Dog), the Alaska Ultra Sport human powered endurance race (Ultra Sport) and the Iditarod Trail Sled

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<sup>1</sup> For a brief discussion on indigenous winter trail development, the reader is referred to the following:  
<http://www.ankn.uaf.edu/publications/VS/trails.html>

<sup>2</sup> Also locally known as snowmachines, sno-gos, and iron dogs.

<sup>3</sup> *Insight Guides Alaska*, Pam Barrett, 2002.

<sup>4</sup> An overland, winter route was developed as a consequence of winter freeze-up of maritime access routes. The route crosses bogs, tundra, swamps, and rivers, and insect infested areas which are easy to traverse when frozen but often impassable in warmer months.

<sup>5</sup> For a history of the Iditarod Trail the reader is referred to the following:

<http://www.blm.gov/ak/st/en/prog/sa/itarod.html>

<http://www.iditarodnationalhistorictail.org/HistoricOverview.htm>

<sup>6</sup> <http://www.anchorage.net/745.cfm>

<sup>7</sup> <http://www.nenanaakiceclassic.com/>

Dog Race (Iditarod).<sup>8</sup> The following is an analysis of the effects those races have on the land traversed by the route and the human environment.

## **1.1. Land Status**

For the purposes of this writing, BLM *administered* lands are lands selected from the Federal public domain for conveyance to either the State of Alaska<sup>9</sup> or the Native community.<sup>10</sup> BLM *managed* lands are lands of the Federal public domain that have not been set aside for conservation<sup>11</sup> or for conveyance to either the State of Alaska or the Native community.<sup>12</sup> The reader is referred to Appendix A for maps of the areas discussed below.

### **1.1.1. Campbell Tract, (Maps 1, 2 & 3, Appendix A)**

The Campbell Tract is a 730-acre parcel of land on the southeast boundary of the city of Anchorage. It is withdrawn from the Federal public domain for use by the Bureau of Land Management, *Public Land Order 7471*, dated 2/11/2002. The ceremonial start of the Iditarod ends at the Campbell Tract.

### **1.1.2. Rohn Air Navigation Site, (Map 5, Appendix A)**

The Rohn Air Navigation Site is a 406 acre parcel of land that was withdrawn from the Federal Public Domain on November 3, 1939, ANS 131. The site was withdrawn for the "... use of the Alaska Road Commission in the maintenance of air navigation facilities." On June 14, 1955 the site was transferred to the "jurisdiction of the Department of the Interior, for the benefit of the Territory of Alaska, Department of Aviation." It remains under BLM management today. The site lies at the confluence of the South Fork of the Kuskokwim and the Tatina Rivers. On the western edge of the Alaska Range, 270 miles into the route from Anchorage, BLM's Rohn cabin located at the Rohn Air Navigation Site, serves as

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<sup>8</sup> For exposés on the events annually occurring along the route the Iditarod National Historic Trail the reader is referred to the following:

Tesoro Iron Dog: <http://www.irondog.org/>

Alaska Ultra Sport: <http://www.allweathersports.com/isport/isport.html>

Iditarod Trail Sled Dog Race: <http://www.iditarod.com/>

<sup>9</sup> Alaska Statehood Act, Public Law 85-508, 72 Stat. 339, July 7, 1958.

<sup>10</sup> Alaska Native Claims Settlement Act, December 18, 1971.

<sup>11</sup> Alaska National Interest Lands Conservation Act, Public Law 96-487, 94 Stat. 2371, December 2, 1980.

<sup>12</sup> BLM administered lands require a concurrence from the State of Alaska on proposals to use State selected lands, ANILCA 906(k)(1)(B), and consultation with ANCSA Native Corporations on proposals to use Native selected lands. 43 CFR §2650.1(a)(2)(i).

a checkpoint and staging area for the races. The lands are described as:

Seward Meridian  
T. 25 N., R. 22 W., Sec. 4  
T. 26 N., R. 22 W., Sec. 33

Approximately one and one-half miles of the route traverses these lands.

**1.1.3. Post Glacier/Buffalo Tunnels, (Map 5, Appendix A)**

These lands are administered by the BLM and are selected for conveyance by and to the State of Alaska under the Alaska Statehood Act, BLM Case File: F-015380. The lands are described as:

Seward Meridian  
T 26 N, R 23 W, Secs. 1 - 4, 9 - 16, 21 -28, 33 - 36  
T 27 N, R 23 W, Secs. 1 - 4, 9 - 16, 21 -28, 33 - 36  
T 28 N, R 23 W, Secs. 1 - 30 (Excepting Patent No. 50-72-0269),  
and Secs. 32 - 36

Approximately twenty miles of the route traverses these lands.

**1.1.4. Farewell Burn, (Map 5, Appendix A)**

These lands are BLM managed. Commonly referred to as “Farewell Burn” – so named after a 1978 wild fire consumed a million and a half acres in the area - the lands are described as:

Seward Meridian  
T 30 N, R 26 W  
T 31 N, R 26 W  
T 31 N, R 27 W  
T 32 N, R 27 W  
T 32 N, R 28 W

Approximately twenty miles of the route traverses these lands.

Additionally there are lands within this grouping that are administered by the BLM and are selected for conveyance by and to the State of Alaska under the

Alaska Statehood Act, BLM Case Files: AA-074555 and AA-076562. The lands are described as:

Seward Meridian  
T 33 N, R 28 W

Approximately five miles of the route traverses these lands.

**1.1.5. East McGrath, (Map 5, Appendix A)**

These lands are administered by the BLM and are selected for conveyance by and to the Native Community under the Alaska Native Claims Settlement Act, BLM Case File: AA-008106-2. The lands are described as:

Seward Meridian  
T 34 N, R 28 W, Secs. 32 and 33.

Approximately one and a half miles of the route traverses these lands.

**1.1.6. West McGrath, (Map 6, Appendix A)**

These lands are administered by the BLM and are selected for conveyance by and to the Native Community under the Alaska Native Claims Settlement Act, BLM Case File: F-014889-A. The lands are described as:

Seward Meridian  
T 33 N, R 34 W, Secs. 1 – 6  
T 33 N, R 35 W, Secs. 1 – 6

Approximately eight and one half miles of the route traverses these lands.

**1.1.7. Southern Race Route East of Anvik, (Map 7, Appendix A)<sup>13</sup>**

These lands are BLM managed and are described as:

Seward Meridian  
T 30 N, R 52 W  
T 30 N, R 53 W  
T 30 N, R 57 W

Approximately twenty miles of the route traverses these lands.

**1.1.8. Kaltag Portage, (Map 8, Appendix A)**

These lands are BLM managed and are described as:

Kateel River Meridian  
T 15 S, R 4 W  
T 16 S, R 4 W  
T 16 S, R 5 W  
T 17 S, R 6 W  
T 17 S, R 7 W  
T 18 S, R 7 W  
T 18 S, R 8 W

Approximately thirty-four and one half miles of the route traverses these lands.

**1.1.9. South Shaktoolik, (Map 8, Appendix A)**

These lands are administered by the BLM and are selected for conveyance by and to the Native Community under the Alaska Native Claims Settlement Act, BLM Case File: F-014932-C. The lands are described as:

Kateel River Meridian  
T 15 S, R 4 W, Secs. 6 & 7, 18 & 19, 30 & 31

Approximately eight miles of the route traverses these lands.

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<sup>13</sup> In interior Alaska, there are two routes to the Iditarod National Historic Trail, a northern route and a southern route. In odd numbered years the southern route is used for the races. During the early years of the Iditarod Race, the mushers only traveled the northern route. After several years, the Iditarod Board of Directors realized that the smaller villages were being heavily impacted by the race coming through their village year after year. It was decided to use both routes of the Trail. This decision had a three fold effect. The northern villages of Ruby, Galena and Nulato only had to deal with the large group of mushers, press and volunteers every other year. The second effect was that the race was able to pass through the actual ghost town of Iditarod. Lastly, the villages of Shageluk, Anvik and Grayling were able to participate in the race.

**1.1.10. North Shaktoolik, (Map 9, Appendix A)**

These lands are administered by the BLM and are selected for conveyance by and to the Native Community under the Alaska Native Claims Settlement Act, BLM Case File: F-014932-E. The lands are described as:

Kateel River Meridian  
T 12 S, R 12 W, Secs. 1 – 5, 10 – 14, 23 & 24

Approximately four miles of the route traverses these lands.

**1.1.11. West Koyuk, (Map 9, Appendix A)**

These lands are BLM managed and are described as:

Kateel River Meridian  
T 8 S, R 14 W

Approximately three miles of the route traverses these lands.

**1.1.12. Kwiktalik Mountains, (Map 9, Appendix A)**

These lands are BLM managed and are described as:

Kateel River Meridian  
T 11 S, R 20 W

Approximately two miles of the route traverses these lands.

**1.1.13. Klokerblok Hills, (Map 10, Appendix A)**

These lands are BLM managed and are described as:

Kateel River Meridian  
T 11 S, R 20 W

Approximately four miles of the route traverses these lands.

Additionally the BLM administers lands in this grouping that are selected for conveyance by and to the Native Community under the Alaska Native Claims Settlement Act, BLM Case File: F-014956-C. The lands are described as:

Kateel River Meridian  
T 11 S, R 20 W, Secs. 12, 13 & 24

Approximately one mile of the route traverses these lands.

**1.1.14. Solomon East, (Map 10, Appendix A)**

These lands are administered by the BLM and are selected for conveyance by and to the State of Alaska under the Alaska Statehood Act, BLM Case File: F-064693. The lands are described as:

Kateel River Meridian  
T 11 S, R 29 W  
Sec. 8, Lots 1, 2, 3, 4, 5, 6,

Lot 5 is also subject to a Veteran Native Allotment application: AA-082895;

Sec. 9, Lots 1, 2, 3;

Sec. 16, Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14<sup>14</sup>,

Lot 8 is also subject to a Veteran Native Allotment application: F-093474-B;

Lot 13 is also subject to a Veteran Native Allotment application: F-093474-A;

Lot 14 is also subject to a Veteran Native Allotment application: F-093474-A.

Sec. 17, Lots 1, 2, 3, 4, 5, 6, 7, 8,

Lot 1 is also subject to a Veteran Native Allotment application: AA-082895;

Lot 3 is also subject to a Veteran Native Allotment application: F-093474-B;

Lots 7 and 8 are subject to a Veteran Native Allotment application: F-093474-A.

Sec. 19, Lots 1, 2, 3, 4, 5, 6, 7

Lots 1, 2, 6 and 7 are also subject to a Veteran Native Allotment application: F-093484;

Approximately three and a quarter miles of the route traverses these lands.

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<sup>14</sup> Lot 14 appears to be mis-numbered on the Master Title Plats as Lot 11.

The BLM also administers lands in this grouping that are selected for conveyance by and to the State of Alaska under the Alaska Statehood Act, BLM Case File: F-044560. The lands are described as:

Kateel Meridian  
 T 12 S, R 30 W, Sec. 7, Lot A

Approximately one half mile of the route traverses these lands.

**1.1.17. Summary of route miles traversing BLM lands**

<b>Land Status 2007</b>	<b>Miles of public land traversed<sup>15</sup></b>	<b>Northern Route<sup>15</sup></b>	<b>Southern Route<sup>15</sup></b>
<b>BLM managed</b>	85	65	85
<b>BLM administered - Native Selected</b>	23	23	23
<b>BLM administered - State Selected</b>	29	29	29
<b>Total</b>	137 ±	117 ±	137 ±

From this point forward in the discussion, BLM administered and BLM managed lands will be addressed collectively as “public lands”, “Federal public lands” or “BLM lands.”

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<sup>15</sup> The area of Federal public lands remaining in Alaska is declining as the Secretary of the Interior meets the entitlements due the State of Alaska and the Native community under the Native Allotment Act of May 17, 1906, the Alaska Statehood Act of July 7, 1958 and the Alaska Native Claims Settlement Act of December 18, 1971. As a consequence, the miles of the route that traverse Federal public lands continues to diminish. For example, in 1996 approximately 950 miles of the route traversed BLM lands and in 2002 approximately 163 miles of the route traversed BLM lands.

**DISCLAIMER:** The numbers throughout Paragraphs 1.0. through 1.1.17 are approximations and were generated solely for the purpose of conducting an environmental analysis of the impacts associated with winter, *specialized recreational use* of BLM lands and for no other purpose. The numbers are not nor are they intended to be the basis for Special Recreation Permit fee computation or for establishing land ownership or management authority as between the United States, the State of Alaska, the Native community or other private parties along the Iditarod National Historic Trail system. Nor do Paragraphs 1.0. through 1.1.17. constitute an audit of land ownership or management authority along the Iditarod National Historic Trail. Thus, the information contained in those paragraphs should not be relied upon for any other purpose other than to provide and approximate measure of BLM land use for environmental analytical purposes only.

## 1.2. Relationship to Statutes, Regulations, Policies, Plans or Other Environmental Analyses

### 1.2.1. Statutory and Regulatory Authority

The Federal Land Policy and Management Act directs the Secretary of the Interior to manage the public lands under principles of multiple use and sustained yield through the issuance of permits or other appropriate legal instruments while preventing unnecessary or undue degradation of the lands, 43 U.S.C. §1732(b). Recreational use of the public lands is within that management authority, 43 U.S.C. §1701(a)(8).

The Federal Land Recreation Enhancement Act authorizes the Secretary of the Interior to issue Special Recreation Permits (SRP) for *specialized recreational use* of public lands, 16 U.S.C. §6802(h).

The implementing regulations of the Federal Land Recreation Enhancement Act require a Special Recreation Permit for commercial or competitive recreational use of the public lands, 43 CFR §2932.11. Commercial and competitive recreational uses are defined as follows:

*Commercial use* means recreational use of the public lands and related waters for business or financial gain.

- (1) The activity, service, or use is commercial if—
  - (i) Any person, group, or organization makes or attempts to make a profit, *receive money*, amortize equipment, or obtain goods or services, as compensation from participants in recreational activities occurring on public lands led, sponsored, or organized by that person, group, or organization;
  - (ii) Anyone *collects a fee* or receives other compensation that is not strictly a sharing of actual expenses, or exceeds actual expenses, incurred for the purposes of the activity, service, or use;
  - (iii) There is paid public advertising to seek participants; or
  - (iv) Participants pay for a duty of care or an expectation of safety.

*Competitive use* means —

- (1) Any organized, sanctioned, or structured use, event, or activity on public land in which 2 or more contestants compete

and either or both of the following elements apply:

- (i) Participants register, enter, or complete an *application* for the event;
- (ii) A *predetermined course* or area is designated;

[Emphasis added, 43 CFR §2932.5]

As there are fees, applications, predetermined routes or an expectation of safety (commercial<sup>16</sup> and competitive recreational use) associated with the Iron Dog, the Ultra Sport and the Iditarod, the Secretary of the Interior is required to manage each race as a *specialized recreational use* of the public lands through the issuance of a Special Recreation Permit.

### 1.2.2. **Executive Orders 11644 and 11989**

Although *specialized recreational use* of public lands requires permitting and is therefore outside of the scope of Executive Orders 11644 and 11989, the orders provide relevant and appropriate guidance for managing *specialized recreational use* of the public lands.

Executive Orders 11644 and 11989 provide that the use of snowmobiles and other vehicles "... on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among various uses of those lands." The Executive Orders require that the use of such vehicles be regulated to the end that such use minimizes:

- ... damage to soil, watershed, vegetation, or other resources of the public lands,
- ... harassment of wildlife or significant disruption of wildlife habitats,
- ... conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands;

and is compatible with

- ... existing conditions in populated areas, taking into account noise and other factors;

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<sup>16</sup> Commercial use in this context does not contemplate an irreversible, irretrievable or long-term commitment of resources such as gravel extraction or the harvest of forest products. Rather, commercial use in this context is incidental and secondary to recreational use and a temporary, short term non-consumptive use of resources.

further, whenever the use of such vehicles

- ... cause or is causing considerable adverse effects on soils, vegetation, wildlife, wildlife habitat or cultural or historic resources of particular areas or trails of the public lands ... [such areas or trails shall be closed] ... to the type of off-road vehicle causing such effects until such time as ... such adverse effects have been eliminated and ... measures have been implemented to prevent future recurrence.

The BLM manages off-road vehicle use in Alaska through 43 CFR §8340 et. seq. Section 8341.2(a) provides:

where the authorized officer determines that off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the authorized officer shall immediately close the areas affected to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence.

### **1.2.3. Plans**

#### **1.2.3.1. Management Framework Plans**

Each of the races will occur within the boundaries of BLM-Alaska's:

- Southcentral Management Framework Plan, dated March 1980;
- Southwest Management Framework Plan, dated November 1981;
- Northwest Management Framework Plan, dated September 1982;

The route traverses the planning area of BLM-Alaska's Kobuk Seward Resource Management Plan, which will supersede the Northwest Management Framework Plan. The Environmental Protection Agency published notice of the filing of the final Kobuk Seward Resource Management Plan and Environmental Impact Statement on September 28, 2007, F.R. Volume 72, Number 188, Pages 55244-55246. The plan was closed to protests on October 28, 2007 and awaits final action on protests before receiving BLM-Alaska's State Director's approval and issuance of a Record of Decision. Until superseded by the Kobuk Seward Resource Management Plan, the Northwest Management Framework Plan is the basis for considering the propriety of authorizing *specialized recreational use* of

BLM lands within the Kobuk Seward Resource Management Plan's planning area, 43 CFR 1610.8 (a).

#### **1.2.3.2. Other Pertinent Plans**

The ceremonial start of the Iditarod ends within the boundary BLM-Alaska's:

- Campbell Tract Facility Management Plan, dated June 1988.

The route utilizes the Unalakleet-Kaltag Portage and parallels the south bank of the Unalakleet River. The Unalakleet-Kaltag Portage is within the boundary of BLM Alaska's:

- River Management Plan for the Unalakleet National Wild River, dated December 1983; and its
- Central Yukon Resource Management Plan, dated October 1986.

The route incorporates segments of the Iditarod National Historic Trail system. These segments are within the boundary of BLM Alaska's:

- Iditarod National Historic Trail Comprehensive Management Plan, dated March 1986.

#### **1.2.4. Environmental Analysis**

The National Environmental Policy Act of 1969 requires that the BLM analyze the environmental effects of activities it authorizes on the public lands to determine whether they will have a significant affect on the quality of the human environment, 42 U.S.C. §4332. In managing the environment, the BLM is required to "... prevent unnecessary or undue degradation of the land[s]," 43 U.S.C. §1732(b). In Alaska the BLM is also required "... to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of [the public] lands ....," 16 U.S.C. §3112(1).

Effects on the land, rural residents and the resources upon which they rely and the affect on the quality of the human environment associated with the winter, *specialized recreational uses* discussed below were previously analyzed in environmental documents: AK-040-96-015, dated January 28, 1997; AK-040-02-EA-004, dated February 15, 2002; AK-040-03-CX-009, dated February 27, 2003; and AK-040-07-DNA-012, dated February 7, 2007.

This document is intended to reassess the effects on the land, rural residents and the resources upon which they rely and the affect on the quality of the human

environment associated with continued authorization of the races and winter, *specialized recreational use* of BLM lands.

### **1.3. Plan Conformance**

#### **1.3.1. Management Framework Plans**

The three general management plans cited in Paragraph 1.2.3.1., are all Management Framework Plans. The Bureau's multiple use planning regulations provide that:

Until superseded by resource management plans, management framework plans may be the basis for considering proposed actions and ...

3) ... [a] determination shall be made by the District or Area Manager whether the proposed action is in conformance with the management framework plan. Such determination shall be in writing and shall explain the reasons for the determination.

[43 CFR §1610.8 (a) (3)]

#### **1.3.1.1. Southcentral Management Framework Plan**

The Rohn Air Navigation Site may fall within the Southcentral Management Framework Plan boundary. The Southcentral Management Framework Plan addressed planning issues pertinent to four specific blocks of public land within the planning area. It did not specifically address the public lands that will be affected by the races. However, it did contemplate winter recreational use of public lands, Objective Number R-6: "Provide for additional winter use in the Denali planning block including snowmobile use."

The rationale behind the objective stated that:

.... snow conditions are excellent for many types of winter sports. Temperatures for some of the winter season are also compatible with recreation use. Snow deep enough to cover most of the ground vegetation allows unencumbered travel ....

Of the four planning blocks addressed in the Southcentral Management Framework Plan, the Denali planning block is in the closest proximity to the Rohn Air Navigation Site. As there is no reason to believe that conditions at the Rohn Air Navigation Site are substantially different than those within the Denali

planning block, winter, *specialized recreational use* of the Rohn Air Navigation Site appears to be in conformance with the Southcentral Management Framework Plan.

### **1.3.1.2. Southwest Management Framework Plan**

The public lands depicted on Maps 5, 6, 7, and 8, Appendix A, fall within the boundaries of the BLM's Southwest Management Framework Plan. The Southwest Management Framework Plan provides:

The Iditarod National Historic Trail Management Plan is in the final stages. Therefore, the Iditarod Trail is not addressed directly in the Southwest URA/MFP. Decisions in the MFP must be consistent with the Iditarod plan.

By reference to and deferral to the Iditarod National Historic Trail Management Plan, Paragraph 1.2.3.4. below, the Southwest Management Framework Plan contemplated winter, recreational use of the public lands within the planning area, particularly those public lands associated with the Iditarod National Historic Trail. The rationale for Objective Number R-3: "Maintain the integrity of the Iditarod National Historic Trail and associated historic and cultural sites in compliance with the National Trails System Act and the Iditarod National Historic Trail Comprehensive Management Plan," provides the following:

The Kaltag Portage has been historically used by dog sleds and snowmachines. The part of the Iditarod Trail in the northern Lime Village block has been traditionally used for winter travel including the transport of mining equipment.

The Southwest Management Framework Plan acknowledged winter, recreational use of the public lands in association with the Iditarod Trail and contemplated the continued use of the public lands for that purpose, provided that such use was consistent with the Iditarod National Historic Trail Comprehensive Management Plan.

### **1.3.1.3. Northwest Management Framework Plan**

The public lands depicted on Maps 9 and 10, Appendix A, fall within the boundaries of the BLM's Northwest Management Framework Plan. The Northwest Management Framework Plan, Recreation Management Objective 1 states: "Provide recreational opportunities appropriate to the needs of visitors." The plan also contemplated the use of the public lands within the planning area to accommodate winter, *specialized recreational use*, specifically the Iditarod Trail

Sled Dog Race: Under Recreation Management Recommendation RM 1.4's Multiple Use Analysis, management recommended the construction of a shelter cabin in the vicinity of Ungalik and postulated that it could be used during the Iditarod Trail Sled Dog Race.

The Northwest Management Framework Plan advocates providing recreational opportunities on the public lands within the planning area and contemplates winter, *specialized recreational use* of the Federal public lands including the running of the Iditarod.

### **1.3.2. Other Pertinent Plans**

#### **1.3.2.1. Campbell Tract Facility Management Plan**

The Campbell Tract Facility Management Plan acknowledges that "... opportunities exist for commercial recreation ...," on the tract, including competitive events. Management of competitive events however, is through a cooperative agreement between the BLM and the Municipality of Anchorage. The 1987 agreement contemplates the use of the Tract for winter, *specialized recreation use*, specifically sled dog mushing and racing.

#### **1.3.2.2. River Management Plan for the Unalakleet National Wild River**

The route parallels the south bank of the Unalakleet River and intermittently traverses the river corridor designated as "Wild" by Congress in the Alaska National Interest Lands Conservation Act of December 2, 1980. The River Management Plan for the Unalakleet Wild River acknowledges winter, *specialized recreational use* of the public lands within the designated wild river corridor:

Today the Unalakleet-Kaltag portage forms part of the annual 1200-mile Iditarod dogsled race and forms a segment of the Iditarod National Historic Trail which parallels the south bank of the Unalakleet River through this area.

Further, a management objective of the plan is "To provide high-quality recreational opportunities in a primitive environment for present and future generations."

Additionally the plan allows for continued traditional access to the river corridor by dogsleds and snowmobiles, Item 4 – Surface Transportation, Action 4.1.

While the plan strives to retain the characteristics for which the Unalakleet River

was designated a “Wild” river, it does acknowledge winter, *specialized recreational use* of the public lands within the corridor as well as continued access to the corridor by dog sleds and snowmobiles.

### **1.3.2.3. Central Yukon Resource Management Plan**

The Central Yukon Resource Management Plan acknowledges that the lands within the planning area “... offer a wide range of recreational opportunities in a primitive setting.” The plan defers recreation management to the provisions contained within the planning documents for the Unalakleet “Wild” River and the Iditarod National Historic Trail.

### **1.3.2.4. Iditarod National Historic Trail Comprehensive Management Plan**

In November 1978 The Iditarod Trail was designated a “National Historic Trail” in the National Parks and Recreation Act, 16 U.S.C. §1244(7). The Act contemplated recreational use of the trail, 16 U.S.C. §1242 (a) (2), and required the development of a comprehensive plan for the management and use of the Trail.

As a matter of reference,<sup>17</sup> the Iditarod National Historic Trail Comprehensive Management Plan, dated March 1986, includes the following management objective: 6) “Public use of the Trail segments should be encouraged, protected, and managed to the extent possible that such use does not impact the historic values of the Iditarod NHT.”

A management goal of the plan is the identification of opportunities for outdoor recreation and enjoyment compatible with maintaining the integrity of the historic route.

In addition, the National Trails System Act provides as follows:

Potential trail uses allowed on designated components of the national trails system may include, but are not limited to, the following: bicycling, cross-country skiing, day hiking, equestrian activities, jogging or similar fitness activities, trail biking, overnight and long-distance backpacking, snowmobiling, and surface water and underwater activities. Vehicles which may be

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<sup>17</sup> The Iditarod National Historic Trail Comprehensive Management Plan was developed in response to the requirements of the National Parks and Recreation Act only. It is not a “tiering” document within the meaning of 40 CFR §1508.28. This environmental assessment will assess the impacts of winter, *specialized recreational use* of the public lands and/or interests addressed in the Iditarod National Historic Trail Comprehensive Management Plan and remaining within BLM’s management authority, 43 CFR §1610.8(b)(1).

permitted on certain trails may include, but need not be limited to, motorcycles, bicycles, four-wheel drive or all-terrain off-road vehicles. In addition, trail access for handicapped individuals may be provided. The provisions of this subsection shall not supersede any other provisions of this chapter or other Federal laws, or any State or local laws.

[16 U.S.C. §1246 (j)]

The Iditarod National Historic Trail Comprehensive Management Plan advocates public recreational use of the Iditarod National Historic Trail as does the National Trails System Act.

#### **1.4. Purpose and Need for the Proposed Action**

##### **1.4.1. Need for the Proposed Action**

Although the Iditarod Trail was developed to allow for winter transportation across the State of Alaska, the races negotiate the route for sport. These winter, *specialized recreational uses* individually and cumulatively involve a substantial number of people and result in a concentrated modern-day incursion of recreational participants, spectators, support personnel and equipment, including motorized equipment, into remote, relatively pristine and ecologically sensitive areas of the Arctic and Sub-arctic and Boreal (Taiga) forests of the Federal public lands. (Maps 11 & 12 Appendix A)

##### **1.4.1.1. Environmental**

Over two-thirds of arctic Alaska is federally owned land, managed by the Bureau of Land Management, the U.S. Fish and Wildlife Service, and the National Park Service. Americans depend on these agencies to properly manage Alaska's tundra and boreal forest regions to meet a variety of human and environmental needs. In meeting their responsibilities, these agencies are grappling with a number of tough environmental challenges and issues.

The arctic environment<sup>18</sup> is especially sensitive. Biodiversity is limited in the region by climate, short light cycles and short and simple food chains that have little or no possibility of species substitution.<sup>19</sup> Arctic species are under constant

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<sup>18</sup> The reader is referred to the following WEB pages for discussions on the Arctic:  
[http://reports.eea.europa.eu/environmental\\_issue\\_report\\_2004\\_38/en](http://reports.eea.europa.eu/environmental_issue_report_2004_38/en)  
<http://www.unep.org/geo2000/english/0119.htm>

<sup>19</sup> For example, the lichen-caribou-human chain.

stress to survive within the harsh environment. They are especially vulnerable to any additional sources of stress both natural and human induced. The fragile tundra and soils too are very susceptible to damage if disturbed by animals or humans. Some biologists estimate, for example, that it may take up to 40 years for lichens to recuperate from the foraging and treading of a passing herd of caribou (some lichen growth has been measured at a sixth of a centimeter per year).

The land is underlain with permafrost, insulated on top by shallow-rooted, low-lying vegetation. In the summer, the sun's radiant energy thaws the frozen surface down about 10 centimeters, with the melted snow water unable to seep into the frozen ground below. Consequently, the region is largely wet and boggy, with over a million shallow lakes. Crossing the terrain by foot in the summer is difficult, because the surface consists of areas of elevated grassy tussocks alternating with small, sunken pools of stagnant standing water.

As long as the permafrost is insulated from heat by the surface vegetation, it can remain stable for many thousands of years. On the other hand, even small disturbances to the vegetation rootmat can start a process of destabilization that can reach impressive proportions.

Crossing the tundra without damaging the permafrost is an ongoing challenge. Experience has taught us about the fragile nature of this land. When the vegetation is damaged, the permafrost is no longer insulated from the summer sun, causing the frozen soil to melt. Eventually, this degradation results in artificial bogs and swampy areas. In some places, scars from human mechanized activity on the tundra, though decades old, are still evident.

The Arctic is also one of the last places on earth where indigenous peoples pursue traditional lifestyles in a relatively undisturbed and un-industrialized environment. While the number of visitors to the Arctic is increasing globally, there is little understanding of environmental damage thresholds.<sup>20</sup>

In the far-north latitudes, just below the treeless tundra of the polar region, a forest of evergreen trees encircles the earth. This is the boreal forest (Taiga) - the biggest terrestrial ecosystem in the world.

Like the Amazon, the boreal forest is critical to sustaining a healthy global environment. The boreal forest is often referred to as the "lungs of the planet", and has a daily rhythm of taking in carbon dioxide and expelling oxygen. In

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<sup>20</sup> Source: <http://www.unep.org/geo2000/english/0119.htm>

In addition to generating oxygen, this process makes the boreal forest a store house for carbon dioxide. Its trees and peat lands comprise one of the world's largest carbon reservoirs as it takes in more carbon dioxide than it releases. In addition to global oxygen generation and carbon retention, the boreal forest ecosystem is a green belt of conifer and deciduous trees that acts as part of the largest source and filter of fresh water on the planet. As a vast and intact forest ecosystem, it also supports a natural food web, complete with large carnivores like bears, wolves and lynx along with thousands of other species of plants, mammals, birds and insects. Like the Arctic, the boreal forest is also home to indigenous communities, which rely on fishing, hunting and trapping for their livelihoods. It too is largely intact, free of roads and industrial development.

#### **1.4.1.2. Statutory**

The Federal Land Policy Management Act directs the Secretary of the Interior to manage use of the public lands and prevent their unnecessary or undue degradation. The National Trail System Act requires the protection of the Iditarod Trail's historic route, its historic remnants and its artifacts. The Wild and Scenic Rivers Act requires the protection of the Unalakleet "Wild River" and its immediate environment.

#### **1.4.1.3. Plans**

In addition to promoting high-quality recreational opportunities in a primitive environment, BLM's River Management Plan for the Unalakleet National Wild River advocates preserving the environment and ecosystems of the river and the river corridor in a natural, primitive state as well as preserving the river's historic and archeological values.

The primary goal of the Iditarod National Historic Trail Comprehensive Management Plan was to provide a guide "to promote the preservation, enjoyment, use and appreciation of the historic route of the Iditarod Trail;" - use "... compatible with the integrity of the historic route and not destructive to the cultural and natural resources associated with the Trail."

#### **1.4.2. Purpose of the Proposed Action**

The purposes of the proposed action are:

1. manage and facilitate responsible winter, *specialized recreational use of* Federal public lands,
2. cause the least adverse impact possible on rural residents,
3. prevent unnecessary or undue degradation of Federal public lands, and
4. protect Federal public land resources for present and future generations.

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**2.0. PROPOSED ACTION AND ALTERNATIVES**

**2.1. Proposed Action – continuance of prior authorizations with increases in visits and visitor days**

The BLM has authorized winter, *specialized recreational use* of BLM lands traversed by the route for more than 30 years and proposes to continue to facilitate and manage winter, *specialized recreational use* of BLM lands through the issuance of Special Recreation Permits<sup>21</sup> that will incorporate appropriate provisions aimed at preventing unnecessary or undue degradation of the lands and protection of resources.<sup>22</sup> The winter, *specialized recreational uses* of BLM lands that are subject to re-authorization are: the Iron Dog, with an increase in participants; the Ultra Sport, and the Iditarod, with an increase in participants, and the use of BLM's Campbell Tract as the finish of the ceremonial start of the Iditarod.

**2.1.1. Route**

**2.1.1.1. Generally**

As did the Alaska Road Commission, volunteers annually establish a winter, race route from Anchorage to Nome with additional routing to Fairbanks as well as routing from Nenana to Nome to accommodate the running of the races and other events. The routing generally follows segments of the Iditarod National Historic

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<sup>21</sup> Concurrently, the BLM also proposes to issue filming permits to each applicant thereby accommodating each applicant's need to film their respective *specialized recreational use* of BLM lands for commercial gain. These authorizations are secondary and incidental to the issuance of the respective Special Recreation Permits.

<sup>22</sup> Only those portions of the Iditarod National Historic Trail traversing Federal Public Lands within the jurisdiction of the Bureau of Land Management are managed by the Bureau of Land Management:

The Secretary of the Interior is by law charged with the responsibility for the administration of the Iditarod NHT. This responsibility is delegated to the Bureau of Land Management. Administration of the National Trail by the Department of Interior involves coordinating trail management and historic preservation efforts on the Iditarod Trail system, but does not include management of non-Federal trail segments or sites. National Trail designation on any non-Federal site or trail segment will not transfer management responsibility to any Federal agency. Instead designation is formal recognition of the significance of the historic site or segment, and enters the non-Federal component into a partnership of landowners, land managers, and private trail groups concerned by the cooperative management of the Iditarod Trail.

[The Iditarod National Historic Trail Comprehensive Management Plan]

Thus, only those public lands within the jurisdiction of the Bureau of Land Management and traversed by the Iditarod National Historic Trail are addressed in this analysis.

Trail system. Within that system there are two routes to Nome: the northern route and the southern route. The route to Nome diverges into two different courses at Ophir, approximately 450 miles into the Iditarod National Historic Trail system from Anchorage, Map 15, Appendix A. In even numbered years, the race route uses the northern route. The northern route proceeds north from Ophir to Ruby and from there west/southwest on the bed of the Yukon River to Kaltag. In odd numbered years, the race route uses the southern route. The southern route proceeds from Ophir to Anvik and from there north on the beds of the Anvik and Yukon Rivers to Kaltag.

In 2008, the Iron Dog will follow the Iditarod National Historic Trail from Big Lake to Nome along the northern route. On its return from Nome it will leave the Iditarod National Historic Trail system at Ruby and proceed on to Fairbanks on the frozen beds of the Yukon, Tanana and Chena Rivers, Map 13, Appendix A.<sup>23</sup>

Four snowmobiles set out from Anchorage in early January and break trail along the designated route to Nome.

While there are some permanent trail markers along the Iditarod National Historic Trail System, over 23,000 pieces of lath are used to mark the race route before the races commence. After the races are over, some of the lath markers are recycled and used to mark other winter trails used by rural residents in interior Alaska.



**Lath trail markers.**

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<sup>23</sup> The Iron Dog changes its routing from time to time, for example, in some years it may develop a round trip course from Big Lake to Nome and back.

Once the race route is established, its trail is periodically packed to preserve trail integrity. Two snowmobiles precede participants in the Ultra Sport and break or pack the trail from Knik Lake to McGrath. Immediately after the running of the Iron Dog the trail is packed to eliminate moguls. The trail may also be re-broken after snow storms to facilitate the running of the races.

Substantial portions of the race route are established by volunteers. The number of volunteers, the amount of equipment and the number of passes made over the trail are unknown.

**2.1.1.1.1. Route segments established solely for the purpose of running the races**

The southern route of the Iditarod National Historic Trail system from Ophir to Kaltag receives little community use. It is therefore assumed that the trail or race route is freshly developed in odd numbered years to accommodate the running of the races. Approximately 20 miles of the southern route of the Iditarod National Historic Trail system traverse BLM lands.

**2.1.1.1.2. Pre-existing winter trails and race route segments**

The balance of the race route segments are presumed to be pre-existing winter trails used by local communities to meet day-to-day living needs such as inter-village travel or subsistence harvesting. These segments are connected, packed and marked to accommodate the running of the races. As with freshly established race route segments, preparation of pre-existing trails commences in January. Snowmobiles are used to connect and prepare or develop pre-existing winter trails into satisfactory race route segments. Approximately 117 miles of the pre-existing winter trails and race route segments traverse BLM lands.



**Snowmobiles in McGrath ready to embark on trail breaking and marking.**

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**2.1.2. Specialized recreational uses – the races**

**2.1.2.1. Tesoro Iron Dog**

The Iron Dog is a snowmobile race that begins in mid February. It takes approximately one week to run the race. The route for the 2008 rendition of the race is from Big Lake, a small town roughly 50 miles north of Anchorage, to Nome and then on to Fairbanks. The route, Map13, Appendix A, will follow the northern route of the Iditarod National Historic Trail system. On the return from Nome, the route will leave the Iditarod Historic Trail system at Ruby and continue on to Fairbanks on the frozen beds of the Yukon, Tanana and Chena Rivers. One hundred and seventeen miles of the route from Big Lake to Nome will traverse BLM lands and an additional 60 miles of the route will traverse BLM lands on the course to Fairbanks.<sup>24</sup> In 2008, the Iron Dog is scheduled to occur between February 10<sup>th</sup> and February 17<sup>th</sup>.<sup>25</sup>

Ninety snowmobiles participated in the race in 1996 and 100 machines participated in the race in 2002. One hundred machines are projected to participate in the race in 2008.

All snowmobiles used in the Iron Dog are 2007 or 2008 models and are in compliance with the Environmental Protection Agency's emission standards for snowmobiles, 40 CFR §1051.103.

Participants in the Iron Dog are required to wear prescribed personal safety equipment and to carry a prescribed complement of survival gear, including a GPS. Beginning in 2007 the Iron Dog commenced a practice whereby each snow machine is tracked by satellite which provides a real-time location of each participant. The device used for satellite tracking incorporates a "man down" tether switch that automatically sends a distress signal and location if the operator is thrown from the snowmobile. Iron Dog participants overnight in villages and generally run their machines in the daylight.

Public safety concerns are provided for under Iron Dog rules: "All other trail users, including sled dog teams have the right-of-way at all times."

Iron Dog rules prohibit participants from littering the trail, checkpoints or layover areas.

Appendix B contains a copy of the Iron Dog's rules.

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<sup>24</sup> Note 20, *supra*.

<sup>25</sup> Note 20, *supra*.

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**2.1.2.2. Poker Run**

The Poker Run is a new event and snowmobile race proposed for 2008 and the foreseeable future. It occurs in conjunction with the Iron Dog and follows the same route with one exception – it ends in Nome. It will traverse 117 miles of BLM lands. Twenty-five machines are projected to participate in the race in 2008.

The brand, model and vintage of the machines running in the Poker Run are unknown. As race rules require OEM machines, it is presumed that all snowmobiles used in the Poker Run are in compliance with the Environmental Protection Agency's emission standards for their respective make, model and year of production, 40 CFR §1051.103.

Participants in the Poker Run are held to the same set of race rules as those in the Iron Dog including the personal and public safety provisions.

**2.1.2.3. Ultra Sport**

The Ultra Sport is a human endurance race. There are two versions of the race distinguished by route and distance. Both versions of the race commence at Knik Lake, approximately 50 miles north of Anchorage. The first, or short version of the race, ends at McGrath and the second, or long version of the race, ends at Nome. The long version of the race uses the same odd/even year route designations as the Iditarod. The mode of travel for all participants is human powered – bicycles, foot, snowshoe, skis, etc. These races are limited to 50 participants for 2008 and will occur between February 24<sup>th</sup> and March 24<sup>th</sup>. Thirty-one participants have indicated a desire to complete the short version of the race for 2008 and 18 participants have indicated a desire to participate in the long version of the race. Participants are required to complete the short version of the race within ten (10) days and participants in the long version of the race are required to complete it within thirty (30) days. Two Ultra Sport snowmobiles precede Ultra Sport participants to McGrath. There are no trail breakers or snowmobiles that accompany participants in the long version of these races. The make, model and production year of the snowmobiles are unknown but it is presumed they too are OEM machines and EPA compliant. As with the snowmobile races, participants in the Ultra Sport are required to carry a prescribed complement of survival gear. They too are prohibited from littering the trail, checkpoints and layover areas.

Forty-one miles of the short race route, the route to McGrath, traverse BLM lands. When the long race route, the route to Nome, follows the northern route of the Iditarod National Historic Trail system, 117 miles of the route will traverse BLM

lands. When the long race route follows the southern route of the Iditarod National Historic Trail system, 137 miles of the route will traverse BLM lands.

#### **2.1.2.4. The Iditarod Sled Dog Race**

The Iditarod is a sled dog race and the largest event or race in terms of equipment, support and crews mobilized in support of the event. It begins on the first Saturday in March and runs until the last participant reaches Nome. For 2008 the time frame for the race is projected to be March 1<sup>st</sup> through March 17<sup>th</sup>; however, it, as are the other races, is an event that is variable in the length of time it takes to complete, as it is very much dependant upon weather conditions along its 1,150 mile course.

There are two phases to the race. The first is a ceremonial start and finish in Anchorage and the second is the formal race which commences in Willow,<sup>26</sup> approximately 70 miles north of Anchorage, and runs to Nome.

The route for the race, Map 15, Appendix A, follows the route of the Iditarod National Historic Trail and alternates between the southern route of the Trail system in odd years and the northern route in even years. One hundred and thirty seven miles of the southern route traverse BLM lands and 117 miles of the northern route traverse BLM lands.

The Iditarod Trail Committee, Inc. does not cap the number of participants in the race except through registration and qualification requirements. There are 111 entrants registered for the Iditarod for 2008. Annually, 80 to 90 percent of entrants qualify to enter the race. It is anticipated that a minimum of 100 entrants will qualify to participate in the race in 2008. Each sled has a complement of between 12 to 16 dogs when the race starts.

As with the preceding events, participants in the Iditarod are required to carry a prescribed compliment of survival gear. Iditarod participants however are prohibited from employing GPS technology to preserve the mystique of dog sledding. By Committee rule, participants are also prohibited from littering the trail, checkpoints or layover areas. The only public safety provision in the race rules is a prohibition on operating a dog sled while impaired.

Appendix B contains a copy of the 2007 Iditarod rules.

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<sup>26</sup> Due to changes in weather patterns in Alaska and infrastructure development in the Anchorage bowl, the beginning point of the formal race has shifted to the fringe of the Anchorage Bowl. Willow was declared the official starting point of the formal race in 2008 by the Iditarod Trail Committee, Inc.

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### 2.1.3. Staging

#### 2.1.3.1. Campbell Tract (Maps 1, 2, & 3, Appendix A)

The ceremonial start of the Iditarod is a public event with the “public” aspect of the event focused on downtown Anchorage.



The ceremonial start of the Iditarod has ended at BLM’s Campbell Tract for the last few years and will continue to do so for the foreseeable future. The completion of the ceremonial start at Campbell Tract is an accommodation extended to the Iditarod Trail Committee, Inc. rather than a public event; although, the public is welcome to enter the Tract and view the mushers and dog teams as they traverse the Tract.

Utilizing a winter trail laid down on city streets, Iditarod participants travel through Anchorage to the Tract. The participants traverse up to 3 miles of the Tract depending on snow conditions. They enter the Tract from the north on a traditional sled dog trail system and follow the P-38 Lightning Trail to the airstrip ramp; or they enter from the east going against the normal sled dog traffic pattern on Homecoming Trail. Alternatively, they may also utilize established sled dog trails in the Tract’s airstrip corridor to access the ramp area.



**Dog Team in Campbell Tract's airstrip corridor**

The Iditarod Trail Committee, Inc. coordinates with the city and the Alaska Sled Dog Racing Association before the race to insure that all other sled dog traffic is prohibited from the Far North Bicentennial Park and the Tract's trail network for the day.

The Committee also coordinates all activities on the Tract including setting up pedestrian barriers, rental and placement of portable toilets, musher crew parking, law enforcement,<sup>27</sup> emergency services, and vehicular traffic control. At the end of activities, the Committee is responsible for insuring that the ramp area is cleared of all barriers, signs and trash. It is also responsible for insuring that individual mushers clean up all straw, litter and animal waste surrounding their vehicles before departing.

As the use of motorized vehicles, snowmobiles and all terrain vehicles, on the Tract is limited to BLM staff and law enforcement personnel, BLM coordinates site and trail preparation including trail grooming, plowing of the airstrip ramp, and the development of snow ramps that lead the dog sleds into the ramp area.

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<sup>27</sup> Approximately ten Anchorage Police Department officers, including two on snowmobiles, provide security on trailheads and roads.



**Dog Team on marked Campbell Tract Trail with spectators in background**

Hundreds of spectators converge on the Tract to view the end of the ceremonial start of the Iditarod. Spectator parking is provided off of the Tract.

In 2007, 964 individuals visited the Tract to witness the finish of the ceremonial start of the Iditarod. Visitors included mushers, dog sled passengers, officials, volunteers and VIPs. In 2008, the Iditarod Trail Committee, Inc. and the BLM entered into an arrangement to finish the ceremonial start of the Iditarod on the Tract for the foreseeable future.



**Dog Teams on Campbell Tract Trail with spectators.**



**Dog Teams and transport in Ramp area at Campbell Tract**



**Musher and crew loading dog team and equipment for departure from Campbell Tract's Ramp Area**

The Iditarod Trail Committee, Inc. has used the Campbell Creek Science Center in the past to unload passengers and VIP's from their sleds. While there are no plans to use the facility in 2008, it is anticipated that the facility may be used in the future. In that event mushers and dog teams will take different routes through the Tract to unload passengers. The ramp area would still be used by mushers to break down, load and transport their sleds and dog teams. It is anticipated that the Iditarod Trail Committee, Inc.'s use of the Campbell Creek Science Center would

include the Committee's rental and staffing of the Center and the Committee's provision for transport of sled passengers.

Set-up for the finish of the ceremonial start of the Iditarod at the Tract begins at 7:00 A.M. and the related accommodations are generally completely broken down and removed from the Tract by 5:00 P.M.

### **2.1.3.2. The Rohn Air Navigation Site**

The Rohn Air Navigation Site receives considerable use in association with the races. The Site's configuration includes a public airstrip and a public shelter cabin.



**Rohn Airstrip center frame, base of mountain. Dalzell Gorge in foreground.**

The Site serves as a re-fueling station for all snowmobiles used in association with the races. Fuel, in 55 gallon drums, is staged at the site one to two weeks prior to the commencement of the races. During fuel dispensing operations, fuel drums are placed in a fuel containment dike at 110% of the capacity of the fuel drum. Fuel spill pads are on site during fuel dispensing operations.

The Tesoro Iron Dog and the Iditarod Trail Committee, Inc. remove the fuel drums at the end of the events. A specific area at the Site is designated for fuel storage and dispensing operations.

In 2008, twenty-two, 55-gallon drums of gasoline (1,210 gallons) will be flown in and staged at the Site to allow for the re-fueling of all snowmobiles participating in snowmobile races and to allow for re-fueling of all snowmobiles used in support of the Ultra Sport and the Iditarod.

The Iron Dog will set up two 8'x10' wall tents on the Site to provide accommodations for volunteers during the running of the 2008 Iron Dog. The Ultra Sport will set up two wall tents on the Site. The Iditarod Trail Committee, Inc. will set up one wall tent on the Site.

The Site is a required checkpoint for all three events. It is also a layover for the Ultra Sport and the Iditarod. Supplies are flown into the Site by volunteer small aircraft pilots.



**Iditarod supplies staged at the Rohn Air Navigation Site.**



**Mushers bedding dog teams at the Rohn Air Navigation Site.  
BLM's Rohn Public Shelter Cabin is in the background.**

### **2.1.3.3. Public shelter cabins**

BLM-Alaska manages four public shelter cabins along the Iditarod National Historic Trail system - Tripod Flats, Old Woman, Bear Creek and Rohn. One of the shelter cabins—the Rohn Cabin—was originally built in 1939 for pilots stranded on the north side of the Alaska Range. The other cabins were built by the BLM.

The BLM maintains the public shelter cabins primarily for use by winter travelers. The Rohn cabin is located at the Rohn Air Navigation Site. The Bear Creek cabin is located on the eastern edge of Farewell Bend between the Rohn Air Navigation Site and Nikolai. The Tripod Flats and Old Woman cabins are located within the Kaltag Portage between Kaltag and Unalakleet. The Tripod Flats cabin is 35 miles from Kaltag and the Old Woman cabin is 15 miles further west on the Trail.

The Rohn cabin is accessible by air year round. The other cabins are relatively inaccessible except during winter over winter, trails.<sup>28</sup> Due to the potential for extreme Arctic winter weather conditions, individuals using the shelter cabins are expected to share the cabins and their amenities. Each cabin is equipped with bunks, a woodstove, and an outhouse.

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<sup>28</sup> Note 4, *supra*.

All four cabins may be used by any member of the public although the Iditarod Trail Committee, Inc. will be granted a right to exclusive use of the Rohn shelter cabin as between it and any other potential commercial or competitive user of the facility. The grant afforded the Iditarod Trail Committee, Inc. will not grant it any rights vis-à-vis the public.



**BLM's Tripod Flats Cabin**

**2.1.5. Checkpoints**

The Rohn Air Navigation Site is a checkpoint for all of the events. There is one more checkpoint on BLM lands at Safety for the Iditarod. On occasion, the checkpoint at Safety may also serve as a layover site for the Iditarod.

**2.1.4. Commercial Filming**

The promoters of each race have requested and each will receive a commercial filming permit. The Ultra Sport anticipates a film crew traveling on three snowmobiles in 2008. The Iron Dog does not anticipate commercial filming in 2008. The Iditarod Insider, an affiliate of the Iditarod Trail Committee, Inc., will be engaged in commercial filming activities throughout the duration of the Iditarod. It is presumed that commercial filming associated with the Iditarod will be accomplished by snowmobile and that film makers, photographers and crew will layover with event participants at the various checkpoints. Alternate modes of travel for film makers, photographers and crew are ski plane and helicopter.

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The number of film makers, photographers and crew for the Iditarod is unknown.<sup>29</sup>

### 2.1.5. Support

The Iditarod is supported by a group of volunteer pilots and cargo handlers known as the Iditarod Air Force<sup>30</sup>. In 2008, 28 volunteer pilots and 6 load handlers plan on transporting or distributing:

- over 500 dropped or scratched dogs;
- over 74, 500 lbs. of dog food to the various Iditarod checkpoints;
- 562 bales of straw to the various Iditarod checkpoints;
- a portion of the 23, 200 lathes that mark the trail
- 1020 cases of Heet©, isopropyl alcohol, to the various Iditarod checkpoints;
- lumber and carpenters for tent camps;
- 48 veterinarians throughout the Iditarod race route
- 44 communications volunteers and their equipment to and from checkpoints
- 101 race judges, photographers and dog handlers continually up the trail.



**Volunteer pilot landing at BLM's Rohn Air Navigation Site.  
BLM's Rohn public shelter cabin is to the left of the airstrip in foreground.**

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<sup>29</sup> All other commercial filming conducted in association with races and involving the use of BLM lands requires a commercial filming permit, independent of the permits granted the respective race promoters.

<sup>30</sup> For information on the Iditarod Air Force see: <http://www.iditarodairforce.com/>



**Volunteer load handler dropping supplies at BLM's Rohn Air Navigation Site.**



**Iditarod Air Force transporting dropped and scratched dogs from the Iditarod.**

**2.1.6. Spectators and media**

BLM's Campbell Tract, in Anchorage, provides an opportunity for a substantial number of spectators to view Iditarod mushers and their dog teams as they

traverse the Tract. Management of spectators and vehicular traffic on and near the Tract is provided by the Iditarod Trail Committee, Inc., the BLM and the Anchorage police. The number of spectators visiting the Tract is in the hundreds and is projected to grow in the foreseeable future.

Primary media coverage of the events occurs in Anchorage and Nome; however, both the Tesoro Iron Dog and the Iditarod Trail Committee, Inc. anticipate media coverage and provide the media with media guides. A sampling of prior years' media guides are provided at Appendix C. Although the extent of media coverage occurring on BLM lands is unknown, the media do monitor the leaders of the Iditarod and it is assumed that media coverage at the Rohn Air Navigation Site will occur. It is also assumed that the media will arrive at the Site by small fixed wing aircraft, helicopter or snowmobile.

#### **2.1.7. Clean-up**

The Iditarod Trail Committee, Inc. manages the clean up of BLM's Campbell Tract after the finish of the Iditarod's ceremonial start.

By race rules, all participants in all races are prohibited from littering the trail, checkpoints and layover areas. Except at Campbell Tract all straw used for dog bedding and other combustibles are burnt along the trail. At Campbell Tract, bedding straw is removed by mushers or the Iditarod Trail Committee, Inc.

The Tesoro Iron Dog and the Iditarod Trail Committee, Inc. jointly sweep or clean the route after all the races and remove all trash and fuel containers. Many of the lath trail markers are re-cycled and used by remote communities to mark inter-village winter trails. The remaining lath trail markers are removed after the Iditarod by the Tesoro Iron Dog and the Iditarod Trail Committee, Inc.

#### **2.1.8. Preliminary summary**

The following provides a sense of the level of winter, *special recreational use* occurring on BLM lands in association with the running of the races.

- *Time frame:* use begins with race route preparation in January and increases in intensity from mid February through mid March with human powered activities continuing through the end of March. The Iron Dog and Poker Run begin in mid February and are completed by the end of February. The Ultra Sport begins at the end of February and is completed at the end of March. The beginning of the Iditarod overlaps the Ultra Sport and begins the first Saturday in March and is usually completed by mid March. The duration of each race is weather dependant.

- *Routing:* Iron Dog – 1,971 in length from Big Lake to Nome to Fairbanks, up to 197 miles traverse BLM lands; Ultra Sport – 1,150 miles in length from Knik Lake to McGrath to Nome, up to 137 miles traverse BLM lands; Iditarod – 1,150 miles in length from Willow to Nome, up to 137 miles traverse BLM lands. Up to 20 miles of fresh trail may be broken on BLM lands to establish the route. The balance of the route segments are pre-existing community, winter trails or frozen river beds.
- *Trail Breakers:* Four trail breakers, using snowmobiles, start out from the Anchorage bowl and the Matanuska-Susitna Valley in early January to establish the route to Nome. Two trail breakers precede participants in the Ultra Sport as far as McGrath. No further trail breaking occurs in support of the Ultra Sport. The route is packed after the Iron Dog to remove moguls. The route is maintained during the Iditarod and kept clear of snow build up from winter storms as necessary.
- *Trail Markers:* The entire route is marked by approximately 23,200 pieces of lath with approximately 2,763 on BLM lands. Trail markers are set one week before the running of the Iditarod. Many trail markers are recycled at the end of the races and used by rural communities to mark other winter trails. Remaining trail markers are removed from the field by race promoters.
- *Race participants:* Iron Dog – 100 snowmobilers; Poker Run – 25 snowmobilers; Ultra Sport – 50 participants; Iditarod – 100 dog teams.
- *Modes of travel:* Iron Dog – recent model-year, racing snowmobiles; Poker Run – mixed vintage snowmobiles; Ultra Sport – human powered; Iditarod – up to 100 dog teams beginning with between 12 and 16 canines.
- *Staging areas:* Two – one at BLM’s Campbell Tract in Anchorage and one at the Rohn Air Navigation Site in the Alaska Mountain Range.
- *Major parcels of BLM lands:* Four – one at BLM’s Campbell Tract in Anchorage, one at the Rohn Air Navigation Site, the Farewell Burn and the Kaltag Portage.
- *Volunteer Support:* Iditarod Air Force with 28 pilots and aircraft and 6 load handlers. Forty-eight veterinarians. Forty-four communication operators. An unknown number of community trail breakers plus the six

identified above.

- *Snowmobiles*: It is presumed that all known snowmobiles (133 machines) participating in the races, trail breaking or support functions are EPA emissions compliant for the appropriate make, model and production year.
- *Fuel*: Twenty-two, 55-gallon drums of gasoline staged at the Rohn Air Navigation Site with appropriate containment dikes and spill response equipment for fuel dispensing operations.
- *Spectators*: Up to 1,000 at BLM's Campbell Tract with associated accommodations and management support.
- *Environment*: Predominantly Sub arctic Alaska - Boreal forest, tundra and tussocks and frozen river beds - with some incursion into the Arctic regions of the Seward Peninsula.
- *Development*: With the exception of Anchorage and Fairbanks, isolated interior rural communities.

Taken together, the races and associated activities amount to a substantial production, accomplished by sponsors, volunteer groups, civic groups and communities throughout Alaska. Over the course of the history of the races, BLM has facilitated and managed the winter, *specialized recreational use* of BLM lands associated with the running of the races.

**2.1.9. Table of projected Recreational Activity & Visitor Use of BLM Lands**

Site/Activity	# of individuals /visits <sup>†</sup>	Visitor Days <sup>†</sup>	Total Visits	Total Visitor Days
BLM's Campbell Tract:				
<i>Iditarod Ceremonial Finish</i>				
Participants	100	33 $\frac{1}{3}$ <sup>1</sup>		
Dogs	1600			
Support Personnel	808	269 $\frac{2}{3}$ <sup>2</sup>		
Spectators	1000	333 $\frac{2}{3}$ <sup>3</sup>		
Media/Film Crews	12	4 <sup>4</sup>		
Unknown = + 20% <sup>5</sup>	384	128		
Snowmobiles	2	1.25 <sup>6</sup>		
Parked Vehicles	500			
			<b>2304</b>	<b>769</b>
Rohn Air Navigation Site				
Fuel(gasoline): drums/gallons 22/1210				
<i>Iron Dog</i>				
Participants	100	8 $\frac{1}{3}$ <sup>7</sup>		
Support Personnel	2	2 <sup>8</sup>		
Spectators				
Media/Film Crews	3	.25 <sup>9</sup>		
Unknown = + 20% <sup>10</sup>	20	1 $\frac{2}{3}$		
Snowmobiles	120	10		
			<b>126</b>	<b>12.25</b>
<i>Poker Run</i>				
Participants	25	2		
Support Personnel				
Spectators				
Media/Film Crews				
Unknown = + 20%	5	.5		
Snowmobiles	30	2.5		
			<b>30</b>	<b>2.5</b>
<i>Ultra Sport</i>				
Participants	50	50 <sup>11</sup>		
Support Personnel	2	2		
Spectators				
Media/Film Crews	3	3		
0% <sup>12</sup>				
Snowmobiles	5 <sup>13</sup>	5		
			<b>55</b>	<b>55</b>

Site/Activity	# of individuals /visits <sup>†</sup>	Visitor Days <sup>†</sup>	Total Visits	Total Visitor Days
<i>Iditarod</i>				
Participants	100	50 <sup>14</sup>		
Dogs	1600			
Support Personnel	12	144 <sup>15</sup>		
Veterinarians, communications, dog handlers, judges	112	37 <sup>16</sup>		
Spectators	24	8 <sup>17</sup>		
Media/Film Crews	6	2 <sup>18</sup>		
Aircraft crew	9	3 <sup>19</sup>		
Unknown = + 20%	53	26		
Snowmobiles	4	4		
Straw Bails	32			
Aircraft	3			
			<b>316</b>	<b>270</b>
137 of Race Route on BLM lands				
Pieces of lath	2763			
<i>Iron Dog</i>				
Participants	100	19 <sup>20</sup>		
Unknown = + 20%	20	4		
Snowmobiles	120	23		
			<b>120</b>	<b>23</b>
<i>Poker Run</i>				
Participants	25	5		
Unknown = + 20%	5	1		
Snowmobiles	30	6		
			<b>30</b>	<b>6</b>
<i>Ultra Sport- Short Version</i>				
Participants	50	59 <sup>21</sup>		
Support Personnel	2	2.3		
Spectators				
Media/Film Crews	3	3.5		
0%				
Snowmobiles	5	.6		
			<b>55</b>	<b>64.8</b>
<i>Ultra Sport- Long Version</i>				
Participants	18	49		
Support Personnel				
Spectators				
Media/Film Crews				
Unknown = + 20%	4	11		
			<b>22</b>	<b>60</b>

Site/Activity	# of individuals /visits <sup>†</sup>	Visitor Days <sup>†</sup>	Total Visits	Total Visitor Days
<i>Iditarod</i>				
Participants	100	200 <sup>22</sup>		
Dogs	1600			
Support Personnel	4			
Unknown = + 20%	20	71		
Snowmobiles	4	.75		
			<b>125</b>	<b>271</b>
Shelter Cabins exclusive of Rohn				
<i>Iron Dog</i> <sup>23</sup>				
<i>Poker Run</i> <sup>23</sup>				
<i>Ultra Sport- Short Version</i> <sup>24</sup>				
<i>Ultra Sport- Long Version</i>				
Participants	18	36 <sup>25</sup>		
Unknown = + 20%	4	8		
			<b>22</b>	<b>44</b>
<i>Iditarod</i>				
Participants	100	66 <sup>26</sup>		
Dogs	1600			
Support Personnel	8	8		
Unknown = + 20%	26	15		
			<b>134</b>	<b>92</b>
Total Visits (less than 12 hours) <sup>†</sup>			<b>3339</b>	
Total Visitor Days (12 hours or more) <sup>†</sup>				<b>1670</b>
To be environmentally analyzed with 20% overall growth & a 75% spectator increase at Campbell Tract over ten years			<b>▶ 4557</b>	<b>2187</b>
Summary of Snowmobile use on BLM Lands				
	Visits	Visitor Days		
Snowmobiles	320	53		
To be environmentally analyzed with 20% growth over 10 years			<b>▶ 384</b>	<b>64</b>
Assumptions, explanations and formulas.				
<sup>†</sup> A visit is an individual's presence on public lands for less than 12 hours; a visitor day is an individual's presence on public lands for 12 hours or more. Here, visitor days are computed as a function of the cumulative presence of all individuals. Land management agencies such as the National Park Service and the US Forest Service measure recreational use in visitor days. The BLM uses both measures: visits and visitor use days.				
<sup>1</sup> It is assumed that each participant will spend 4 hours on Campbell Tract to run the course, disembark passengers, dismantle equipment, tend to dogs and pack all gear to depart Campbell Tract. (100 mushers x 4 hours each = 400 hours / 12 = 33½ visitor days)				
<sup>2</sup> It is assumed that each dog sled has 8 attendants including the musher (100 dog teams x 8 support crew = 800 individuals + 8 Anchorage Police Officers on foot = 808 individuals x 4 hours each = 3232 hours / 12 = 269½ Visitor Use days)				
<sup>3</sup> In 2006 BLM counted 964 spectators on Campbell Tract for the finish of the 2006 ceremonial start of the Iditarod. This computation assumes a four hour stay per individual and 1000 spectators. (1000 visitors x 4 hours = 4000 hours / 12 = 333½ visitor days)				

<sup>4</sup> This computation assumes four network broadcasting stations in Anchorage and a crew of three individuals per network. The assumption is that each network crew would visit Campbell Tract for a minimum period of four hours. (4 Crews x 3 individuals = 12 individuals x 4 hours = 48 hours / 12 = 4 visitor days)
<sup>5</sup> A 20% factor is included in an attempt to capture the number of unknown individuals engaged in the events.
<sup>6</sup> Municipal snowmobiles used by the Anchorage Police Department are presumed to be EPA emissions compliant. (2 x 7.5 hour length of event = 15 hours / 12 = 1.25 visitor days)
<sup>7</sup> It is assumed that each participant will visit the Rohn Air Navigation Site solely for refueling and check-in at the checkpoint with a visit duration of one hour. (100 participants x 1 hour = 100 hours / 12 = 8 1/3 visitor days)
<sup>8</sup> It is assumed that personnel manning the checkpoint will be present for an entire 12 hour day considering site and fueling set-up and breakdown
<sup>9</sup> It is assumed that media or film crews will spend no more than one hour on site and that there would be no more than one film or media crew of three individuals. (3 individuals x 1 hour = 3 hours / 12 = .25 visitor days)
<sup>10</sup> Allows for a 20% growth in the number of participants.
<sup>11</sup> Since participants are on foot, it is assumed that all participants, support personnel and film crews will overnight at the Rohn Air Navigation Site.
<sup>12</sup> The Ultra Sport has a self imposed cap of 50 participants.
<sup>13</sup> It is assumed the media/film crew is traveling by snowmobile; thus, two trail breakers plus three film/media crew results in 5 snowmobiles.
<sup>14</sup> It is assumed that up to one half of the dog sled teams will layover at the Rohn Air Navigation Site.
<sup>15</sup> It is assumed that the Rohn Air Navigation Site checkpoint will be manned for 12 of the 17 days of the race by as many as a dozen individuals.
<sup>16</sup> Assumes 3 veterinarians, 3 communications personnel, 100 dog handlers and 6 judges for a total of 112 individuals. It is assumed that one third of that number or 37 individuals will stay on site for 12 of the 17 days of the race.
<sup>17</sup> Assuming a 4 hour visit (24 spectators x 4 hours / 12 hours = 8 visitor days)
<sup>18</sup> Assuming a 4 hour visit (6 film/media crew x 4 hours / 12 hours = 2 visitor days)
<sup>19</sup> Assuming a 4 hour visit (9 aircraft crew x 4 hours / 12 hours = 3 visitor days)
<sup>20</sup> Assumes the snowmobiles average 60 mph. (100 machines x 137 miles = 13,700 miles / 60 mph / 12 = 19 visitor days)
<sup>21</sup> Participants are expected to travel 350 miles in ten days or 35 miles per day. (50 participants x 41 miles / 35 = 59 visitor days)
<sup>22</sup> Race participants complete the race course in 17 days; the race course is 1,150 miles long for an average daily run of 68 miles. (1150 / 17 ≈ 68 miles per day) 137 miles of the longest (Southern Route) race course traverses BLM lands. (137 / 68 = 2 days to traverse BLM lands) (100 participants x 2 = 200 visitor days)
<sup>23</sup> Participants in the Iron Dog and the Poker Run overlay in interior Alaska communities during their races.
<sup>24</sup> Participants in the short version of the Ultra Sport do not overlay at any BLM Shelter Cabins but the one at the Rohn Air Navigation Site.
<sup>25</sup> There are two BLM Shelter Cabins in the long version of the Ultra Sport after McGrath. Since participants are on foot, it is assumed they will each overlay at the shelter cabins.
<sup>26</sup> Assumes one third of the teams layover at both the Tripod Flats and Old Woman Shelter Cabins.

**2.1.10. Reasonably foreseeable winter, *specialized recreational uses* of BLM lands:  
The Norman Vaughan Serum Run,<sup>31</sup> Map 16, Appendix A**

Although the Norman Vaughan Serum Run will not occur in 2008, it has occurred in the past and it is anticipated that it will return to the agenda of winter, *specialized recreational uses* of BLM lands occurring in February and March each year. The Norman Vaughan Serum Run commemorates the 1925 humanitarian relay of diphtheria antitoxin from Nenana to Nome.<sup>32</sup> The commemorative relay is conducted by up to 35 dog teams with a compliment of 18 snowmobiles. It begins in Nenana and travels river beds to Ruby where it picks up and follows the Northern Route of the Iditarod National Historic Trail on its 768 mile route to Nome. The relay is scheduled to take 20 days. Approximately 65 miles of its route traverses BLM lands. The dog teams, mushers and the contingent of snowmobiles overnight in rural villages along its route.

It is assumed that the sled dog teams and snowmobiles travel approximately 40 miles a day. Under the foregoing configuration, the Norman Vaughan Serum Run will involve 87 visits and an equal number of visitor days on BLM lands. When allowing for a 20% ten year growth in the event the numbers increase to **104 visits** and **visitor use days**.

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<sup>31</sup> Information regarding the commemorative event can be found here: <http://www.serumrun.org/>

<sup>32</sup> Information regarding the historical event can be found here: <http://www.serumrun.org/History.htm>

2.1.11. Data Tables and Trail Use Intensity Chart<sup>33</sup>

Table 1

Visits and Visitor Days				
	Present		Increase over Ten Years	
	Visits	Visitor Days	Visits	Visitor Days
<b>Campbell Tract</b>				
<b>Spectators</b>	1000	333	1750	583
<b>Other</b>	1304	436	1565	523
<b>Campbell Tract Total</b>	2304	769	<b>3315</b>	<b>1106</b>
<b>Trail Use</b>	1035	901	<b>1242</b>	<b>1081</b>
<b>Sub Total all use</b>	3339	1670	<b>4557</b>	<b>2187</b>
<b>Vaughan Trail Use</b>	87	87	104	104
<b>Total Trail Use</b>	1122	988	<b>1346</b>	<b>1185</b>
<b>Total Overall</b>	3426	1757	<b>4661</b>	<b>2291</b>

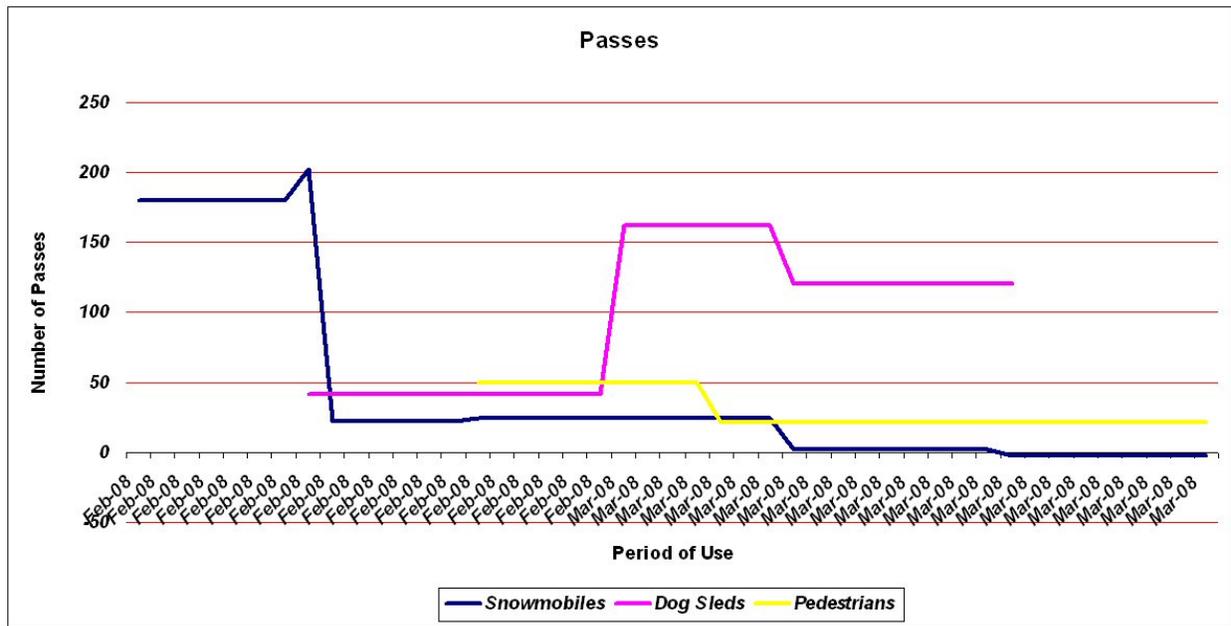
Table 2

Snowmobiles and Snowmobile Use included in Table 1			
	#	Visits	Visitor Days
# Proposed	192	384	64
+ # Reasonably Foreseeable	22	30	30
= Total for analysis	<b>214</b>	<b>414</b>	<b>94</b>

Table 3

Dog Sled & Dog Visits & Visitor Days included in Table 1				
	#	Dogs	Visits	Visitor Days
# Proposed	120	1920	720	452
+ # Reasonably Foreseeable	42	672	68	68
= Total for Analysis	<b>162</b>	<b>2592</b>	<b>788</b>	<b>520</b>

<sup>33</sup> The numbers in Table 1 are the maximums for the 10 year regulatory period of all the Special Recreation Permits authorizing winter, *specialized recreational use* of BLM lands in association with the Iditarod National Historic Trail. They are the thresholds upon which the BLM will base the continued adequacy of this analysis. Tables 2 & 3 represent a hypothetical configuration of the races developed for analytical purposes only. The configuration is not binding on future configurations of winter, *specialized recreational use* of the relevant BLM lands. The threshold numbers in Table 1 are.



Intensity and Duration of route use expressed as number of passes

### 2.1.12. Issues of environmental concern

*Trail deterioration:* trail width, trail depth - development of tread ruts or grooves; social/side trails.

*Vegetation, soil and permafrost disturbance:* impacts from snow compaction - destruction of plant material particularly seedlings, disturbance of the tundra's vegetation mat resulting in melting permafrost.

*Hydrological disturbance:* snow compaction and seasonally late melting of trail bed resulting in altered run off regimes.

*Litter and evidence of human intrusion:* disposal of litter e.g., trail markers, dog booties, non-biodegradable litter, non-combustibles such as batteries deposited in burning receptacles.

*Pollutant introduction:* airborne snowmobile emissions, snowmobile noise levels, snowmobile discharges of fuel and oil; contamination of water bodies with chemical substances such as fuel and oil.

*Wildlife and fishery impacts:* habitat degradation, particularly riparian habitat and stream banks, harassment or disturbance of wildlife, wildlife fright/flight responses resulting in avoidance, temporary displacement or habitat fragmentation.

*Cultural resources:* deterioration, destruction, vandalism, theft.

*Invasive non-native plants:* introduction through the use of straw as dog bedding.

*Fuel spills:* storage and dispensing of fuels without proper secondary containment and spill response preparedness.

*Taking of wildlife:* wildlife encounters and the inadvertent taking of wildlife.

*Safety:* participant and public.

**2.2. Alternative B: the no action alternative – discontinuance of prior authorizations**

Under this alternative, the BLM would not continue to authorize the *specialized recreation use* of BLM lands and facilities associated with the races. This alternative however fails to meet a purpose and need of the proposed action: “managing and facilitating responsible winter, *specialized recreational use* of Federal public lands.”

Further, it is reasonable to postulate that failure to authorize the races may result in routing of the races around BLM lands. Although such a scenario may result in prevention of unnecessary or undue degradation of BLM lands and protection of their resources, it may not avoid or minimize adverse impacts on the quality of the human environment as it would visit those impacts on other lands.

**2.3. Alternative C: continuation of prior authorizations without increases in visits or visitor days**

This alternative would not authorize the running of the Poker run – 25 snowmobiles - and it would cap the number of participants in the Iditarod at 90 participants. While this alternative represents a reduction in *specialized recreational* snowmobile and dog sled use over the proposed action, it constitutes a nominal and therefore an environmentally inconsequential change in overall use of BLM lands in light of the magnitude of the *casual* winter use they receive both pre and post race. Nor will this alternative *prevent* unnecessary or undue degradation of the land or *protect* its resources; rather it will merely *reduce* the possibility of degradation.

Thus, although this alternative would avoid the adverse effects of additional winter, *specialized recreational use* on BLM lands and it would minimize the adverse effects the races have on the quality of the human environment; environmentally, the alternative is not a *substantial* change from the proposed action nor does it result in a considerable reduction in the level of environmental concern associated with the races.

Hence, this alternative is not carried forward for detailed analysis.

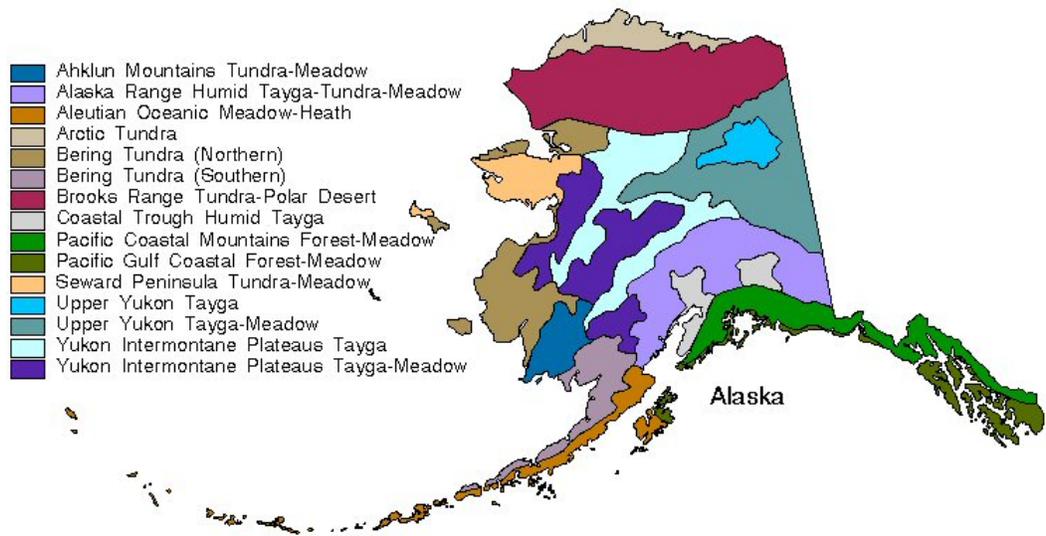
**3.0. AFFECTED ENVIRONMENT**

The route runs across latitudes 61°N through 64°N; primarily through the boreal forest or Taiga of Alaska with brief sojourns into the Arctic region of the Seward Peninsula.

The boreal forest ecosystem is permafrost based and is comprised of forests, wetlands, bogs, fens, peatlands, rivers and lakes. It's a sensitive place and easily damaged. Soils are cold and often very shallow. Water tables are high. Growing seasons are short. Biological processes are slow. Nutrient availability is low. Native plants and animals have adapted to life under harsh climatic conditions.

Substantial portions of the route have had continuous winter use for centuries and the races, including the snowmobile races, have been occurring in one form or another, on the route on a regular basis since the early 1970's. Dog sled racing in Alaska dates back to the 1908 All-Alaskan Sweepstakes organized in Nome.

**3.0.1 Ecosystem Provinces<sup>34</sup>**



**Alaska's Ecosystem Provinces**

Seven of the above Ecosystem Provinces will be impacted by the *specialized recreational uses* discussed in this document: the Coastal through Humid Taiga, the Alaska Range Humid Taiga-Tundra-Meadow, the Upper Yukon Taiga-

<sup>34</sup> Source: [http://www.fs.fed.us/colorimagemap/ecoreg1\\_akprovinces.html](http://www.fs.fed.us/colorimagemap/ecoreg1_akprovinces.html)

Meadow, the Yukon Intermontane Plateaus Taiga, the Yukon Intermontane Plateaus Taiga-Meadow, the Bering Tundra, and the Seward Peninsula Tundra-Meadow. They are presented here in the order in which they are traversed by the race route from Anchorage to Nome.

### 3.0.1.1 Coastal Through Humid Taiga

**Land-surface form.**--This province includes smooth and irregular plains surrounded by high mountains. Cook Inlet is level to rolling, with areas of ground moraine and stagnant ice topography, drumlin fields, eskers, and outwash plains. Most of the lowland is less than 500 ft (150 m) above sea level, with a local relief of 50-250 ft (15-80 m).

**Climate.**--Although the climate is subarctic, it is less severe than the interior of Alaska, because the region is sheltered by the Alaska Range to the north. Proximity to the Gulf of Alaska makes the climate transitional to the marine climates to the south. Average annual temperatures range from 32 to 39F (0 to 4C), with a winter average of about 5F (-15C) and summer maximums of about 64F (18C). Average annual precipitation ranges from 10 to 18 in (260 to 460 mm). Annual snowfall averages from 4 to 10 in (100 to 260 mm).

**Vegetation.**--Throughout the Cook Inlet lowlands, lowland spruce-hardwood forests are abundant. Bottom land spruce-poplar forest adjoins the larger river drainages, along with thickets of alder and willow. Wet tundra communities exist along the Cook Inlet coastline. White spruce forests occur on southfacing gravelly moraines, and cottonwood-tall bush communities are common on large floodplains.

**Soils.**--Spodosols are the principal upland soils in the Cook Inlet.

**Fauna.**--The diversity of habitats in this province supports a large variety of species. Muskrats and red foxes abound, moose flourish in lowland areas, and Dall sheep are frequently seen in the uplands. Black bear populations are dense throughout the region.

Trumpeter swans nest here, and tundra swans are present during migration.

King, sockeye, and silver salmon are common or abundant.

BLM's Campbell Tract, Paragraph 1.1.1. is within this Ecosystem Province.

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**3.0.1.2. Alaska Range Humid Taiga-Tundra-Meadow**

**Land-surface form**--The Alaska Range is a continuation of the Pacific Coast Mountains extending in an arc across the northern Pacific. The towering, glaciated peaks of the Alaska Range--which includes Mt. McKinley at 20,320 ft (6,194 m)--typify the ruggedness of the area. The only major waterway is the Susitna River.

**Climate**--The Alaska Range has a transitional climate of severe winters and hot, dry summers. Temperatures range from 90F to -70F (32C to -57C). Precipitation averages only 16 in (410 mm) annually.

**Vegetation**--Vertical vegetational zonation characterizes the Alaska Range, beginning with dense bottom-land stands of white spruce and cottonwood on the floodplains and low terraces of the Susitna River. Above the terraces, poorly drained areas up to 1,000 ft (300 m) support stands of black spruce. Upland spruce-hardwood forests of white spruce, birch, aspen, and poplar, with an undergrowth of moss, fern, grass, and berry, extend to timberline at about 2,500-3,500 ft (800-1,100 m). Tundra systems of low shrubs and herbaceous plants form discontinuous mats among the rocks and rubble above timberline. White mountain-avens may cover entire ridges in the Alaska Range, associated with moss campion, black oxytrope, arctic sandwort, lichens, grasses, and sedges. These tundra systems stop short of the permanent ice caps on the highest peaks.

**Soils**--Bottom-land and terrace soils of the Susitna River are stratified, well-drained Entisols without pedogenic horizons. Upland hardwood forest soils are mostly shallow, well-drained Inceptisols. Permafrost is continuous on northfacing slopes, discontinuous on southfacing ones. Soils that support the moister tundra areas range from wet Inceptisols to Histosols. Alpine Inceptisols are generally shallow and poorly developed, with discontinuous or continuous permafrost.

**Fauna**--The Alaska Range supports large big-game populations of moose, Dall sheep, black and brown bear, wolf, caribou, and wolverine. Smaller mammals include beaver, red fox, lynx, otter, marten, squirrels, and weasel.

Golden eagles, ptarmigan, ravens, and sharp-shinned hawks inhabit the uplands.

The Rohn Air Navigation Site, Paragraph 1.1.2., the Post Glacier/Buffalo Tunnels, Paragraph 1.1.3., and the Farewell Burn, Paragraph 1.1.4., are within this Ecosystem Province.

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**3.0.1.3. Upper Yukon Taiga – Meadow**

**Land-surface form.--**This province is composed of rounded low mountains rising to 2,000-4,000 ft (600-1,200 m) in altitude, along with plateaus and highlands of rolling topography and gentle slopes interspersed with frequent valleys. They are underlain by a very complex geologic matrix of metamorphic, igneous, and sedimentary rocks. There are no glaciers. Isolated peaks, mostly near the Canadian border, rise to heights of 5,500-6,000 ft (1,700-1,800 m).

**Climate.--**The area has an extreme continental boreal climate with a large annual temperature range, severely cold winters, and short, hot summers. Temperatures average from about 10 to 16F (-12 to -9C) in the north and 19 to 25F (-7 to -4C) at lower elevations in the south. Average annual precipitation ranges from 10 to 15 in (260 to 380 mm); precipitation is heaviest in late summer. Average snowfall ranges from 47 to 98 in (1,200 to 2,500 cm).

**Vegetation.--**The vegetation pattern in the area is complex. Forests of white spruce, paper birch, and quaking aspen cover most lower slopes in the south and southfacing slopes in the north. Black spruce forest vegetation grows at higher elevations, on all northfacing slopes in the south, on all but steep southfacing slopes in the north, and on lower slopes with impeded soil drainage throughout the area. Above the black spruce forest, the vegetation is alpine meadow characterized by sedges on poorly drained sites and by low-growing shrubs on drier sites.

**Soils.--**The dominant soils are Inceptisols. The entire area is underlain by discontinuous permafrost.

**Fauna.--**Caribou and introduced bison inhabit the area, and Dall sheep are found in the high mountains. Upland furbearers, such as marten, mink, and shorttail and least weasels, are common. Hoary marmots populate mountainous areas, and woodchucks are found in the lower open woodlands. There is prime habitat for arctic ground squirrels and northern flying squirrels. The range of the longtail and yellow-cheeked voles in interior Alaska corresponds closely to this region.

The open mixed deciduous-conifer forests of the area support a large variety of birds. Common breeding birds include gray jays, boreal chickadees, northern flickers, red-tailed hawks, and boreal owls.

The route of the Norman Vaughan Serum Run from Nenana to Ruby traverses these lands as does the route of the Iron Dog from Ruby to Fairbanks.

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**3.0.1.4. Yukon Intermontane Plateaus Taiga**

**Land-surface form.**--A series of broad valleys, dissected uplands, and lowland basins covered with alluvial deposits extends across interior Alaska between the Brooks and Alaska Ranges. Four major rivers, the Yukon, Tanana, Koyukuk, and upper Kuskokwim, provide the area's outstanding hydrologic features. All four form wide valleys, with extensively braided channels; in some areas, the valleys contain hundreds of small lakes and marshes. Elevations are generally less than 2,000 ft (600 m).

**Climate.**--The semiarid climate has extreme temperatures. Summers are short and hot, with temperatures up to 100F (38C); winters are long and severe, with temperatures as low as -75F (-60C). Average annual precipitation is only 17 in (430 mm). Temperature inversions, frequent in upland areas in winter, result in warmer temperatures on lower slopes than in bottom lands.

**Vegetation.**--The major river bottoms support dense white spruce- cottonwood- poplar forests on floodplains and southfacing slopes up to about 1,000 ft (300 m). The undergrowth is dense shrubbery formed by green and thinleaf alder, willow, dogwood, and berries. The outer valley edges support evergreen and coniferous forests, often with pure stands of black spruce. The undergrowth consists of willow, dwarf birch, crowberry, fern, blueberry, lichens, and mosses. Upland areas are generally covered by a rather dense white spruce-birch-aspen-poplar forest. Pure stands of white spruce grow near streams. Typical undergrowth includes willow, alder, fern, berries, grasses, and mosses. Root systems are shallow. Water balance is likely the factor limiting growth in most of these areas because of the hot, dry summer climate. Old river terraces, ponds, and sloughs contain scattered but extensive bogs where the vegetation is chiefly sphagnum and other mosses, sedges, bog rosemary, and Labrador-tea. Marginal areas may support willow and alder.

**Soils.**--River bottom and lower slope soils are generally deep, well-drained Inceptisols over sands, silts, and gravels that are only slightly weathered. Permafrost is discontinuous in major river valleys. Soils on northfacing slopes are shallow and poorly developed, with continuous permafrost. Upland soils that support spruce-hardwood forests are well-drained, shallow Inceptisols over continuous permafrost. Bog soils are Histosols.

**Fauna.**--The spruce-hardwood forests provide excellent habitat for furbearers and other mammals. Brush zones and immature forests recovering from fires furnish especially good browse for moose. Common game animals in addition to moose include black and brown bear, wolf, wolverine, and caribou. Smaller mammals

include lynx, red fox, beaver, mink, muskrat, weasel, river otter, marten, red and northern flying squirrel, and deer mouse.

Woodland game birds find plentiful habitat. Upland birds include northern hawk-owl, spruce grouse, and boreal chickadee.

The lands in East McGrath, Paragraph 1.1.5, and West McGrath, Paragraph 1.1.6., are within this Ecosystem Province.

### 3.0.1.5. **Yukon Intermontane Plateaus Taiga-Meadow**

**Land-surface form.**--This area includes low mountains and hills interspersed with valleys. Elevations range from 980-1,970 ft (300-600 m) on ridges in the north to 4,920 ft (1,500 m) in the south. Much of the area exhibits glacial features, but in the north only the higher peaks were once covered by glaciers. Deep, narrow valleys are prevalent.

**Climate.**--The climate is transitional from maritime to extreme continental. Winters are milder and summers cooler than in the interior. The average January temperature is about 4F (-16C), and the average July temperature is just above 50F (10C). The growing season is 4 months. Average annual precipitation is about 16 in (400 mm); precipitation is heaviest in late summer, when there are heavy rains. Snowfall ranges from 59 to 78 in (1,500 to 2,000 mm).

**Vegetation.**--Black spruce forest vegetation is dominant in this area. Many hills and ridges, however, support only a tundra vegetation consisting of sedges and shrubs. There are forests of white spruce and paper birch on the hills overlooking the Yukon and Kuskokwim Rivers. Alpine meadow vegetation is predominant at higher elevations.

**Soils.**--The dominant soils are Inceptisols.

**Fauna.**--The fauna of the lowland forests are similar to those in surrounding taiga regions. There are low to moderate populations of brown bears. River otters are found throughout major river drainages. Northern bog lemmings populate wet alpine and subalpine meadows.

Alpine tundra provides habitat for horned larks, surfbirds, and white-tailed ptarmigan. Sharp-shinned hawks and golden eagles are common avian predators.

The lands in the Southern Race Route East of Anvik, Paragraph 1.1.7., and the Kaltag Portage, Paragraph 1.1.8., are within this Ecosystem Province.

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**3.0.1.6. Bering Tundra**

**Land-surface form.**--The Bering Tundra is a western extension of the arctic coastal plain, a broad lowland area rising gradually to the east. General topography is less than 1,000 ft (300 m) in elevation, broken in places by small mountain groups that rise 2,500-3,500 ft (800-1,100 m). Standing water is present in thousands of shallow lakes and marshes along the coast. Two large braided rivers, the lower Yukon and the Kuskokwim, flow out of the province to the southwest.

**Climate.**--The climate is less severe in the Bering Tundra than on the arctic slope, but it also has cold winters and generally cool summers. Temperatures range from a high of 90F (32C) in summer to a low of -70F (-57C) in winter. Annual precipitation averages 17 in (430 mm).

**Vegetation.**--Vegetation along the wet coastal areas is chiefly sedge and cottongrass; woody plants grow on higher sites. Birch-willow-alder thickets are extensive in transition zones between beach and forest. The lower Yukon and Kuskokwim Valleys are dominated by white spruce mixed with cottonwood and balsam poplar in tall, relatively dense stands, with a dense undergrowth of thinleaf alder, willow, rose, dogwood, and various species of berry bushes.

**Soils.**--Coastal soils are wet, cool Inceptisols over silt, sand, and marine sediments. The lower Yukon and Kuskokwim Valley bottoms have pockets of Entisols with no soil horizons. Ground water throughout the area is limited, but some is present in the major river valleys. Surface water on the Seward Peninsula ceases to flow in winter, but further south it flows year-round. Permafrost is continuous under most of the area.

**Fauna.**--River bottom lands provide excellent habitat for furbearers, game birds, and moose. Upland and coastal areas support brown and black bear, wolf, wolverine, coyote, caribou, reindeer, snowshoe hare, red fox, lynx, beaver, moose, squirrels, mice, weasel, mink, and marten. Along the northern Bering Sea coast, polar bear, walrus, and arctic fox are occasionally found.

Coastal areas provide extensive and excellent habitat for migrating waterfowl and shore birds. Other bird species in the area include ospreys, falcons, grouse, ravens, golden eagles, and various hawks and owls.

The lands in South Shaktoolik, Paragraph 1.1.9., are within this Ecosystem Province.

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**3.0.1.7. Seward Peninsula Tundra-Meadow**

**Land-surface form.**--This area contains extensive uplands of broad convex hills and flat divides 500-2,000 ft (150-600 m) high, cut by sharp V-shaped valleys. Isolated groups of rugged glaciated mountains with peaks 2,500-4,700 ft (800-1,400 m) in elevation reach above coastal lowland and interior basins. The bedrock is chiefly metamorphic, with massive granitic intrusions. Periglacial processes predominate, and ice-wedge polygons are common.

**Climate.**--The tundra climate is characterized by long, cold winters and short, cool summers. Nome has recorded a minimum temperature of -47F (-44C) and a maximum of 84F (29C). The average January temperature is about 3F (16C), and average temperatures in July are below 50F (10C). Average daily minimum temperatures in winter range from -11 to -2F (-24 to -19C), with an average daily maximum of 3 to 12F (-16 to -11C). Average daily minimum temperatures in summer range from 34 to 43F (1 to 6C), with an average maximum of 55 to 63F (13 to 17C). The growing season is less than 2 months. Fairly heavy snowfall occurs in winter, with even heavier concentrations of rain in summer. Average annual precipitation is about 18 in (460 mm); average annual snowfall ranges from 39 to 78 in (1,000 to 2,000 mm).

**Vegetation.**--Vegetation exists in moist and wet tundra communities at lower elevations and alpine tundra communities in the high mountains. Vegetation is primarily composed of sedge tussocks interspersed with scattered willows and birches, with isolated spruce-hardwood forests.

**Soil.**--The Inceptisol soils are generally poorly drained and shallow; the entire peninsula is underlain by permafrost. On hillslopes and ridges they are formed in very gravelly residual material over weathered bedrock. At lower elevations, soils are formed mainly in colluvial and alluvial sediments.

**Fauna.**--Arctic foxes and Alaska hares are common here, and polar bears are often seen. Ribbon seals are characteristic of areas offshore. Reindeer were introduced at the turn of the century to provide an additional food source for people. Musk ox were introduced in 1970.

Spectacled eiders, ruddy turnstones, and black turnstones are common breeding birds in the lowland tundra of this province. The rare arctic loon, which breeds only in western Alaska, is characteristic of this region. The only known breeding grounds of the very rare bristle-thighed curlew extend throughout this region.

The lands in North Shaktoolik, Paragraph 1.1.10., West Koyuk, Paragraph 1.1.11., Kwiktalik Mountains, Paragraph 1.1.12., Klokerblok Hills, Paragraph 1.1.13., supra, and Solomon East, Paragraph 1.1.14., are within this Ecosystem Province.

### **3.1. Critical Elements of the Human Environment**

The following discussion is organized around the Ten Significance Criteria described in 40 CFR §1508.27 and incorporated into BLM's 14 Critical Elements of the Human Environment list (H-1790-1), and supplemental Instruction Memorandums, Acts, Regulations and Executive Orders. There is a fifteenth Critical Element of the Human Environment in Alaska, Subsistence, ANILCA Title VIII, Sections 801 and 802.

#### **3.1.1. Unaffected Critical Elements of the Human Environment**

The following Critical Elements of the Human Environment have been analyzed and are either not present or will not be affected by the Proposed Action or the No Action Alternative:

##### **1. Areas of Critical Environmental Concern**

The Central Yukon Resource Management Plan designated the *Unalakleet River Watershed* an Area of Critical Environmental Concern to protect salmon spawning and rearing habitat and crucial riparian habitat of peregrine falcons from the effects of mineral development. The designation eliminates "notice level mining operations" in favor of "plans of operation" and environmental analysis under 43 CFR §3809 for all mining operations.

Fourteen miles of the route traverse the *Unalakleet River Watershed Area* of Critical Environmental Concern.

As the river bed and surrounding terrain will be frozen during the races, no impacts to salmon spawning and rearing habitat are anticipated.

Northern Peregrine falcons prey on other birds. They and their prey migrate south during the winter. They do not begin nesting in the area until May, at least one month after the conclusion of the races. No impacts to Northern peregrine falcons or their habitat are anticipated.

2. Environmental Justice

The concept of environmental justice requires the examination of a proposed action to discern whether or not the environmental consequences of that action will result in an inequitable distribution of those consequences upon those without the social or political power to influence the outcome.

Mindful of the impacts the Iditarod had on interior Alaska communities, the Iditarod Trail Committee, Inc. established a cycle of alternating the routing of its race in odd and even numbered years to lessen and distribute those impacts upon and amongst rural Alaskan communities, note 11, *supra*.

The Iron Dog and Poker Run accommodate the interests of rural residents with such race rules as yielding the right of way on the route to other trail users.

Arrival of Ultra Sport participants in rural communities is viewed as a visitation with little or no imposition on those communities,

3. Farmlands (Prime or Unique)

None in proximity of BLM lands.

4. Flood Plains

The season of use and the relatively low level of human activity associated with the races will not affect flood plains.

5. Native American Religious Concerns

None on BLM lands.

6. ANILCA Title VIII, Subsistence

*Campbell Tract* -- The finish of the Iditarod's ceremonial start occurs on Federal public lands as defined by ANILCA Section 102(3) and falls under the regulatory authority of the Federal Subsistence Board. The Campbell Tract is in the Anchorage Management Area, Game Management Unit 14C. In accordance with the provisions of the Subsistence Management Regulations for the harvest of Wildlife on Public Lands in Alaska, the area and Unit are closed to the subsistence taking of wildlife. Subsistence use of fishery resources is unaffected by the Proposed Action.

Therefore, with regard to Campbell Tract, neither the Proposed Action nor the No Action Alternative will significantly restrict Federal subsistence use, decrease the abundance of Federal subsistence resources, alter the distribution or movement of Federal subsistence resources, or limit qualified Federal subsistence user' access from currently existing conditions and no further subsistence analysis is necessary.

*BLM administered lands along the route* -- Selected lands do not meet the ANILCA Section 102(3) definition of Federal Public Lands and are outside the jurisdiction of the Federal Subsistence board and the scope of ANILCA Title VIII.

Subsistence on *BLM managed lands along the race route including shelter cabin areas* may be impacted and is discussed below.

#### 7. Threatened & Endangered Species

Although the Northern peregrine falcon was a listed species, it was delisted on August 25, 1999. There is no further reason to believe that:

- a. an endangered or a threatened species is present in the area affected by the proposed action;
- b. implementation of the proposed action will jeopardize the continued existence of an endangered or threatened species;
- c. implementation of the proposed action will result in the destruction or adverse modification of critical habitat of such species;
- d. implementation of the proposed action will jeopardize the continued existence of any species proposed to be listed as endangered or threatened;
- e. implementation of the proposed action will result in destruction or adverse modification of critical habitat proposed to be designated for such species;

therefore, no consultation with the U.S. Fish and Wildlife Service is considered necessary pursuant to Section 7 of the Endangered Species Act of 1973, 16 U.S.C. §1536.

#### 8. Wild and Scenic Rivers

The route parallels the south bank of the Unalakleet River and intermittently traverses the river corridor designated as "Wild" by

Congress in the Alaska National Interest Lands Conservation Act of December 2, 1980, see Paragraph 1.3.2.2. The purposes of the Wild and Scenic River Act are preservation of “Wild” rivers in free-flowing condition and protection of designated rivers, their water quality, and their immediate environments for the benefit and enjoyment of present and future generations.

During the months of February and March, the time frame associated with the races, the river bed of the Unalakleet River will be frozen as will its surrounding terrain. The “Wild” river corridor is a component of the Kaltag portage and an inter-village/subsistence harvest winter, travel corridor. The actual use of the corridor by race participants is the same as the traditional use that has occurred in the corridor for over a century and the same as the casual use occurring in the corridor by rural Alaskans today. While winter, *specialized recreational use* of the river corridor will increase impacts on the river corridor, the character and nature of the impacts are physically and spatially indistinguishable from the impacts of ongoing winter, *casual* use of the corridor and cumulatively insubstantial due to the frozen nature of the river bed and surrounding terrain.

Substantial impacts to the River’s free-flowing condition, its water quality or its immediate environment are not anticipated.

9. Wilderness

There are no formal Wilderness designations along the route.

**3.1.2. Affected Critical Elements of the Human Environment**

The following Critical Elements of the Human Environment may be affected by the Proposed Action or the No Action Alternative.

**3.1.2.1. Air Quality**

Given its low population density and relatively sparse industrial activity, air quality in Alaska, particularly interior Alaska, is good. Decreases in air quality are attributable to volcanic activity, wildfire and sources outside of the geographic boundary of the State. International transport pathways bring low concentrations of airborne contaminants across the Arctic and Pacific Oceans from Europe and Asia. Other pathways bring contaminants north from the industrialized and agricultural zones of the North American Continent. These pollutants originate from power plants, metal smelters, other industrial sources and agricultural activity and are eventually deposited onto the snow, vegetation, and soils and

ultimately into the waters of Alaska.<sup>35</sup> During temperature inversions in winter, air quality in the Westernized urban areas of Fairbanks and Anchorage (Campbell Tract) occasionally fails to meet federal standards.

### **3.1.2.2. Cultural Resources**

#### **3.1.2.2.1. Campbell Tract**

Historic resources from the World War II era are scattered throughout Campbell Tract. The Campbell Garrison (AHRS # ANC-01384) is situated on the grounds of Campbell Tract. The garrison and airstrip were developed in 1942 as one of four 5,000 foot long satellite airfields associated with Fort Richardson. In 2004 the Campbell Garrison was determined eligible to the National Register of Historic Places. The airstrip and taxiways are essentially the same as when they were constructed in 1942 despite over 65 years of use by the military, fire support, and more recently by the BLM. There are no known prehistoric cultural resources on the Tract.

#### **3.1.2.2.2. The Rohn Air Navigation Site**

The cabin at the Rohn Air Navigation Site was built in 1939 by the Civilian Conservation Corps as a shelter cabin and is eligible to the National Register of Historic Places.

#### **3.1.2.2.3. The Route**

There are approximately 500 historic/archaeological sites located along or associated with the Iditarod National Historic Trail and the race route. An inventory of the sites has yet to be completed. The bulk of known sites are historic. Diaries, newspaper accounts, official records, maps, aerial reconnaissance and limited on-the-ground surveys have been used to document most of the historic era sites. Prehistoric Native Alaskan sites may have escaped notice since they ordinarily have no recorded history and do not normally have any remaining standing structures. Relatively recent semi-subterranean house remains can be seen from the air, but as time passes these tend to fill in and become overgrown so that only on-the-ground reconnaissance can locate them. Temporary hunting and travel camps normally can only be located with on-the-ground survey methods. Known sites are dated from several thousand years old to the early 20<sup>th</sup> century.

Very few sites older than 100-200 years are known. Of the few older sites that are known and located near the Trail, there is not enough information beyond

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<sup>35</sup> See <http://www.akaction.org/PDFs/contaminantsinalaska.pdf> and <http://www.columbia.edu/~pjs2002/arctic/pages/pollution.html>

physical location to associate them with the Trail. A cluster of these are located in the vicinity of Farewell Mountain. These appear to be temporary lookout or camping sites. One, located in a cave, has been radiocarbon dated to approximately 3000 years ago. A side-notched projectile point found along the ridge is considered to be diagnostic for the period between 6500 - 4000 years ago.

Along Norton Sound are several Norton period village sites--the oldest dating from approximately A.D. 100, an older period site (SOL-001) with beginning occupation dates from approximately 2000 B.C., and a number of more recent sites which date to between approximately A.D. 1700 and the historic period.

The late prehistoric peoples living along the Trail consisted of groups subsisting on summer fishing, and intermittent hunting and trapping. They occupied long-term winter villages, small, short-term seasonal encampments, and temporary travel or hunting camps. Villages tended to be concentrated along the coast or major rivers.

At the beginning of the historic period, segments of existing Native trails linked Native villages along the Trail. Russian fur traders utilized some of the segments and the existing Native villages for their fur trading enterprises.

The majority of historic sites along the Trail come from the gold rush period - the last few years of the nineteenth century and early decades of the twentieth century. When gold strikes occurred near Nome, Flat, Ophir and adjoining areas, people began to pour into Alaska from all over the world. In 1908 the U.S. Army's Alaska Road Commission was directed to survey and mark the Trail between the ice-free port at Seward and the boomtown of Nome on the shores of the seasonally ice-bound Bering Sea. They completed their work in 1910. During the height of its historic use, the main Trail was dotted with roadhouses approximately every twenty miles, or "a good day's walk." Many of these roadhouses still exist despite the ravages of man, time and nature.

### **3.1.2.3. Invasive, Non-native Plants<sup>36</sup>**

With increased trade and travel, invasions by introduced vascular plants are becoming commonplace and are widely recognized as one of the most serious threats to biodiversity and to economies. Introduced plants can have wide-ranging negative effects on ecosystems. These include alterations to the physical structure of habitats, nutrient cycling, fertility and productivity, hydrological regimes, and food webs.

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<sup>36</sup> Source: [http://akweeds.uaa.alaska.edu/pdfs/AAAS\\_Invasive\\_non-native\\_plants\\_arctic.pdf](http://akweeds.uaa.alaska.edu/pdfs/AAAS_Invasive_non-native_plants_arctic.pdf)

Arctic tundra and Taiga habitats have remained relatively insulated from the negative ecological, economic, and social impacts due to invasive non-native plant species. Most non-native plant populations in Alaska are small and largely restricted to areas of human disturbance. However, arctic and boreal habitats are generally subject to significant natural substrate disturbances, making them susceptible to invasion by weedy non-native species that are primarily disturbance specialists. Further, the natural disturbances display high connectivity. Areas of human disturbance may act as foci for invasions into arctic and boreal habitats.

Currently, introduced plants compose a small percentage of the flora and biomass of arctic Alaska. However, weed outbreaks have accelerated in the last five years. Roads and pipelines act as sources and corridors for introduced plants. At river crossings, plants can be easily dispersed into a new, extensive natural corridor system that is also dominated by substrate disturbance.

An invasive non-native plant survey was conducted at Campbell Tract in 2006.<sup>37</sup> The following is an excerpt from the survey's abstract:

A total of 136 infestations were recorded in the surveys, with 20 Alaska BLM listed invasive plants. An additional 11 non-native plant species were observed. Weed infestations occupied an estimated 165 acres of Campbell Tract. The most commonly encountered invasive plants were white clover (*Trifolium repens*), alsike clover (*Trifolium hybridum*), narrow leaf hawksbeard (*Crepis tectorum*), white sweetclover (*Melilotus alba*), and timothy (*Phleum pratense*). These species were present on most roadsides, the airstrip, and most trails, and in a few cases had established in woodland habitats. Large and nearly continuous populations are present for these species except white sweetclover and timothy, which are composed of numerous, yet small and controllable, infestations. A few small infestations of more problematic invasive species were also located. Orange hawkweed (*Hieracium aurantiacum*), butter and eggs (*Linaria vulgaris*), brittlestem hempnettle (*Galeopsis tetrahit*), and oxeye daisy (*Leucanthemum vulgare*) are highly invasive species that were found in largely undisturbed woodlands. Two individuals of European bird cherry (*Prunus padus*) were found along Campbell Creek.

The Amber-marked Birch Leaf Miner *Profenusa thomsoni*, a small insect introduced into the Anchorage area from Europe in the mid 1990's, has infected

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<sup>37</sup> <http://akweeds.uaa.alaska.edu/pdfs/literature/Summary%20CampbellTractWeedInventoryNov2006.pdf>

many of the birch trees in Anchorage, including those on Campbell Tract.

**3.1.2.4. ANILCA, Title VIII, Subsistence BLM managed lands**

Up to 85 miles of the route traverse BLM *managed* lands. Those segments of the route, the Rohn Air Navigation Site and the other public shelter cabin areas meet the ANILCA Section 102(3) definition of Federal Public Lands and are within the jurisdiction of the Federal Subsistence board and the scope of ANILCA Title VIII and are used by subsistence hunters and trappers.

Within the Kaltag Portage and during the season of proposed use, bear species are denning, Federal moose season is closed unless authorized and the ability to take caribou is dependant upon the migration patterns of the Western Arctic Caribou Herd. The Iron Dog occasionally changes its race route. In the event the Iron Dog uses the Southern route of the Iditarod National Historic Trail system it will be using that route when there is an open hunting season for moose. Moose and caribou hunting in both areas are low to moderate. Trapping throughout the route is generally open.

While there is an open season for Bison along the Farewell Burn segments of the route; it is a state hunt rather than a subsistence harvest, managed by the State through a lottery for permits.

**3.1.2.5. Wastes, Hazardous or Solid<sup>38</sup>**

While there are no known hazardous or solid waste occurrences on the BLM lands affected by the proposed action, there are occurrences within the Yukon and Kuskokwim river watersheds associated with rural communities, World War II and Cold War military occupancy and mineral development.

**3.1.2.6. Water Quality (Surface and Ground)**

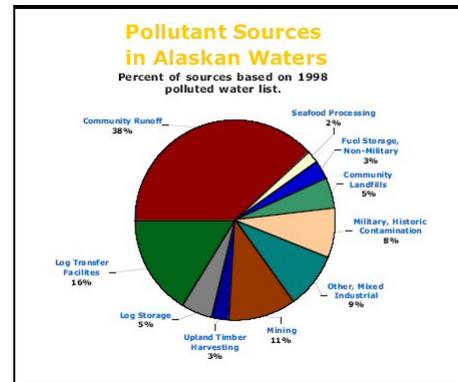
As with Alaska's air quality, Alaska's surface water quality is good. It is however susceptible to airborne pollutants.

Groundwater is available all year round and provides the water used in 80% of Alaska public water systems. In many cases the natural quality is so high that well water requires little or no treatment prior to drinking.

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<sup>38</sup> For an assessment and listing of work being done in the Yukon Watershed, Ruby to Kaltag on the northern race route and Anvik to Kaltag on the southern race route see: <http://www.yritwc.com/programs/default.htm>

Nevertheless, many in Alaska drink water from systems that violate federal safe drinking water standards. Most of the drinking water problems stem from inadequate public sewerage, especially in rural areas. Industrial chemicals, urban runoff, hazardous home chemicals, or waste products leaching from poorly maintained septic tanks may travel with surface water (especially after heavy rain) or seep into groundwater. Dumps and landfills, underground fuel storage tanks, and badly constructed storage lagoons are common causes of water and subsistence resource contamination in Alaska. Soil type plays an important role in determining how, where, and when contaminants travel. Clay soils, which are made up of tiny particles, slow or block downward movement of water. Sandy soils are made up of large particles and water seeps through easily without filtering out or decomposing pollutants. Rising global temperatures are affecting permafrost, which may eventually allow contaminants to move more widely and freely than they currently do.<sup>39</sup>



### 3.1.2.7. Wetlands/Riparian Zones

Wetlands and riparian zones that may be affected by the Proposed Action or the No Action Alternative include wet tundra, tidal flats, emergent wetlands, lakes, and riverine riparian/oxbow/overflow channel areas.

Healthy wetland and riparian areas include a variety of types and ages of plants, including trees, shrubs, grasses and groundcovers. Typically, wetland and riparian zone vegetation and soils are either frozen or protected by a mantle of packed snow during the winters.

Dog teams will cross the only riparian area affected by the Proposed Action by bridge on Campbell Tract. Spectators will gain access to viewing areas by crossing riparian zones over bridges constructed for that purpose. There are no wetlands on Campbell Tract that will be affected by the proposed action.

The route crosses the riparian zones of numerous riverine areas and several major rivers in interior Alaska. Route segments within the Farewell Bend traverse open sedge wetlands with patches of white spruce/mixed forest and black spruce bogs. Much of the area is riparian in nature, as it is wet and supports a moss sedge

<sup>39</sup> Source: [http://www.uaf.edu/ces/water/documents/Protecting\\_AKs\\_Water-FI.pdf](http://www.uaf.edu/ces/water/documents/Protecting_AKs_Water-FI.pdf)

cover, yet does not have a consistent amount of standing water. This area is often windswept with shallow snow cover.

Segments of the Southern route of the Iditarod National Historic Trail system, along the Innoko Bottoms from Shageluk to Anvik, traverse open grass meadows with numerous interconnecting sloughs, oxbow lakes and shallow wetlands that are hydrologically connected to major rivers. The entire area is a floodplain, and is inundated in most years during spring thaws. Water levels gradually recede through the summer until late summer and fall rains cause the area to flood again. This fluctuating water regime creates very productive wetlands and a seasonal change in vegetation from water tolerant plants to more upland annual species. Similarly, the riparian zones of the Yukon and Innoko rivers are kept in early successional stages due to flood erosion and ice scouring.

Within the Unalakleet drainage, the route traverses the Unalakleet River and tributary streams. Stream dynamics and changes in the meanders historically are commonplace in this river system. Areas traversed by segments of the route in the Unalakleet drainage are low growth and wet tundra.

## **3.2. Non-critical Elements of the Human Environment**

### **3.2.1. Affected Non-critical Elements of the Human Environment**

The following Non-critical Elements of the Human Environment may be affected by the Proposed Action or the No Action Alternative.

#### **3.2.1.1. Competing use**

Campbell Tract accommodates winter recreational use of the grounds with sled dog, hiking and ski trails. In remote or interior Alaska, winter travel in the roadless subarctic and Arctic regions, is commonly accomplished by utilizing ice roads and frozen tundra.<sup>40</sup> Many people use snowmobiles to travel during the winter. Some Inuit still use dogsleds. The race route, as well as many connecting trails associated with the Iditarod National Historic Trail system, is used frequently by rural residents as travel routes between villages and for access to subsistence harvest areas. Public shelter cabins have been constructed along portions of the route where the distance between rural communities is substantial.

#### **3.2.1.2. Noise**

With the exception of the Anchorage urban environment (Campbell Tract) and the sounds associated with occasional aircraft at the Rohn Air Navigation Site, the

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<sup>40</sup> Arctic Climate Impact Assessment, 2004, Cambridge University Press.

areas affected by the Proposed Action and the No Action Alternative are relatively serene, disturbed only by the *casual* use of rural Alaskans. The Anchorage urban environment is affected by urban transportation sound levels, sound levels associated with dense human occupancy, and sound levels associated with numerous civilian and military airports and light industrial activity.

### 3.2.1.3. **Personal and Public Safety**

The Anchorage community offers substantial public services (police, hospitals, EMS) to accommodate the events at Campbell Tract.

The race route however traverses over 1,150 miles of rough, wilderness terrain during Arctic winter. Jagged mountain ranges, frozen rivers, dense forests, desolate tundra and miles of windswept coasts are traversed when temperatures are far below zero and winds can cause a complete loss of visibility. The route is negotiated during long hours of Arctic darkness and involves treacherous climbs and potential encounters with wild animals.

The intense cold of the extreme climate presents many problems if not prepared. In any situation where extreme cold is present, hypothermia is a risk.

Hypothermia is the lowering of the body's core temperature. There are two types of hypothermia, acute and chronic. Acute hypothermia is the rapid lowering of the body's core temperature. Chronic hypothermia is the slow lowering of the body's core temperature. If the temperature drop occurs in less than four hours it is acute,

otherwise it is chronic. Acute hypothermia is also called immersion hypothermia and typically occurs when a person is in cold water. Hypothermia is considered severe when the body's core temperature drops below 90 degrees F, and mild from normal body temperature to 90 degrees F.



Frostbite is another problem in areas of extreme cold. Frostbite is caused by exposure to severe cold. Frostbite occurs more often when the wind is blowing,

quickly taking heat from the body. The ears, cheeks, nose, toes, and fingers are frostbitten the most frequently. When the part of the body is exposed to cold, the blood vessels constrict. When this occurs the blood supply to the chilled parts decreases and the tissues don't get the warmth they need.

With the exception of the Alaska Range and the Southern route of the Iditarod National Historic Trail, there are a number of rural communities dispersed along the route. Where there is a substantial distance between communities, public shelter cabins accommodate the needs of travelers.

Portions of the route consist of community winter trails upon which public safety concerns are addressed through a customary trail etiquette regime.

#### **3.2.1.4. Soc-economic**

The *economy* of the Alaska is based largely on natural resources, from oil, gas and metal ores to fish, reindeer, caribou, whales, seals and birds. Along the arctic coast, Alaska's oil fields produce 20 percent of domestic petroleum needs. In southeast Alaska and along the Bering Sea coast, Alaskan fisheries, the largest in the nation, predominate in economic activities. Timber harvesting occurs mostly in coastal areas in southeast Alaska. Mining for gold and other metals exists throughout the state. Tourism is an important economic activity and the tourism industry covers all areas of the State. Government services including the military are also a major part of the economy - responsible in some cases for over half of the available jobs. Diverse forms of subsistence living, practiced primarily in Native and interior or rural communities, depend on fish, marine mammals, and wildlife—including partly commercial reindeer herding—and play a social and cultural role vastly greater than their contribution to monetary incomes.

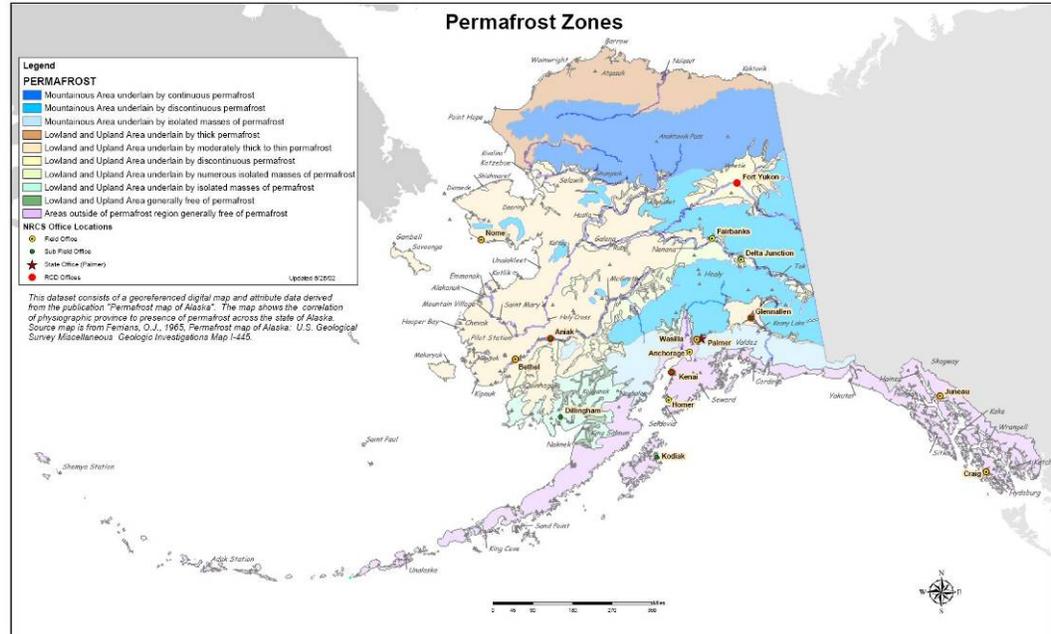
For a comprehensive look at *The Remote Rural Economy of Alaska* the reader is referred to the April 12, 2007 work of Scott Goldsmith with the Institute of Social and Economic Research, University of Alaska, Anchorage.<sup>41</sup>

The economies of the Westernized urban centers such as Anchorage and to some degree Fairbanks, although historically influenced by high durable and perishable good pricing, are typical of other urban centers in the Pacific Northwest.

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<sup>41</sup> Mr. Goldsmith's work is available on the web at:  
[http://www.iser.uaa.alaska.edu/Publications/u\\_ak/uak\\_remoteruraleconomyak.pdf](http://www.iser.uaa.alaska.edu/Publications/u_ak/uak_remoteruraleconomyak.pdf)

3.2.1.5. Soils<sup>42</sup>



The specific soil characteristics along the route are outlined in Section 3.0.1. The characteristic of Alaskan soils of concern in this analysis is permafrost. As much as 85% of Alaska’s land is underlain by permafrost.

Permafrost, or permanently frozen ground, is soil, sediment, or rock that remains at or below 0°C for at least two years. It occurs both on land and beneath offshore Arctic continental shelves, and its thickness ranges from less than 1 meter to greater than 1,000 meters. Permafrost has profound effects on hydrology (the land-based water cycle), erosion, vegetation, and human activities. It limits movement of ground water and the rooting depth of plants. On slopes, it allows fluid-like movement of surface soil and deposits. Seasonal thawing over continuous permafrost creates a saturated surface layer in which pools of meltwater accumulate, conducive to marsh and tundra ecosystems and peat formation.

The Arctic permafrost zone is home to a wide variety of birds, mammals and insects and a surprising diversity of plants. Much of the Northern Hemisphere permafrost is overlain by evergreen boreal forests.

<sup>42</sup> Source <http://nsidc.org/sotc/permafrost.html>

The trees and shrubs that grow in these boreal forests are much smaller than related species found to the south, and their tissues are far more resistant to freezing and thawing, *see* Paragraph 3.2.1.6.

Despite its name, permafrost is characterized by its instability. The biologically active surface layer of permafrost is a thin slice of soil and vegetation that thaws every summer and freezes hard each winter. The permafrost beneath the thawed layer prevents or impedes drainage, forming wetlands in low-lying areas.

The open plains of permafrost north of the tree line make up the tundra biome. Here, arctic plants have evolved myriad specialized adaptations for life on the often frigid and usually windswept tundra. Arctic plants have very short roots because of permafrost, *see* Paragraph 3.2.1.6.

Although climate controls the broad pattern of permafrost, climatic differences alone do not explain variations in thickness and temperature, or discontinuous occurrence at the southern fringes of permafrost and terrain features such as those in the Fairbanks area. Local variation in climate and soils, vegetation, relief, snow cover and slope aspect appear to control these characteristics.

- *Surface Water* influences the distribution and thermal regime of permafrost. Black spruce is often a sign of poor drainage and permafrost. Permafrost becomes thinner or disappears entirely underneath large bodies of water like rivers and lakes. On adjacent higher ground, melting permafrost allows surface water to drain through the active layer soils. A lowering water table or permafrost table allows birch and white spruce trees to germinate and mature. As these trees mature, shaded ground can allow permafrost to redevelop. Permafrost will again prevent drainage and scrubby black spruce will reappear.
- *Vegetation* affects permafrost in two ways. A heavy mass of dry vegetation may act as insulation and retard heat passing to or from the soil. A heavy moss and vegetation layer is often present on the surface of permafrost soils. Moss can be several inches thick and provide two functions. First, it acts as an evaporative cooler, retarding soil thawing; and second, it may also act as insulation that retards heat transfer.
- *Relief irregularities* in the landscape—such as hills and ridges—result in a variation in the solar radiation received and reflected at the ground surface. In a discontinuous permafrost zone, this means that permafrost occurs on north facing slopes, but not on adjacent south-facing slopes that

receive a greater amount of net solar radiation. In continuous permafrost zones—the permafrost tends to be thicker, and the active layer thinner—especially on north slopes.

- *Snow cover* influences the exchange of heat between the air and the ground and also affects the distribution of permafrost. A heavy snowfall in the autumn or early winter will slow down frost penetration, soil freezing, and the formation of permafrost as well because the insulating blanket of snow retards heat loss from the ground. On the other hand, a thick snow cover, which persists on the ground in spring, will delay thawing of the underlying frozen ground.

For years, builders have kept permafrost frozen by raising houses off the ground to keep warmth from seeping into the ground and melting permafrost. Engineers have also designed systems that keep the soil frozen beneath roads and pipelines with heat exchangers, but if the climate continues to warm, people may be forced to refrigerate the soil to keep it frozen, as Alyeska Pipeline Service Company currently does for the Alaska Pipeline.

Field observations indicate that permafrost warmed by up to 6°C during the 20th century. Observations in Alaska found permafrost warming at sites north of the Brooks Range from the Chukchi Sea to the border with Canada, coincident with statewide air-temperature warming beginning in 1976. The warming occurred primarily in the winter, with little summertime change.

In many areas of interior Alaska permafrost has warmed to within 1° C of thawing. Widespread permafrost thawing could change much of the northern landscape. In Fairbanks, for example, permafrost has warmed about 1.5 degrees C during the past 30 years. An increase in temperature of less than two degrees might not seem like much, but that warming will leave much of the permafrost barely cold enough to remain solid.

Sinking buildings, roller-coaster roads, and boreal forest changing to wetlands could be the result of continued permafrost thawing.

**3.2.1.6. Vegetation**

The *taiga* or *boreal forest* exists as a nearly continuous belt of coniferous trees across North America and Eurasia. Taiga is the Russian name (land of little sticks) for this forest which covers so much of that country.

Overlying formerly glaciated areas and areas of patchy permafrost on both continents, the forest is mosaic of successional and subclimax plant communities sensitive to varying environmental conditions.



The taiga corresponds with regions of subarctic and cold continental climate. Long, severe winters (up to six months with mean temperatures below freezing) and short summers (50 to 100 frost-free days) are characteristic, as is a wide range of temperatures between the lows of winter and highs of summer. Mean annual precipitation is 15 to 20 inches, but low evaporation rates make this a humid climate.



Needleleaf, coniferous (gymnosperm) trees are the dominant plants of the taiga biome. A very few species in four main genera are found: the evergreen spruce (*Picea*), fir (*Abies*), and pine (*Pinus*), and the deciduous larch or tamarack (*Larix*). In North America, one or two species of fir and one or two species of spruce are dominant.

Broadleaf deciduous trees and shrubs are members of early successional stages of both primary and secondary succession. Most common are alder (*Alnus*), birch (*Betula*), and aspen (*Populus*).

The conical or spire-shaped needleleaf trees common to the taiga are adapted to the cold and the physiological drought of winter and to the short-growing season:

Conical shape - promotes shedding of snow and prevents loss of branches.

Needleleaf - narrowness reduces surface area through which water may be lost (transpired), especially during winter when the frozen ground prevents plants from replenishing their water supply. The needles of boreal conifers also have thick waxy coatings--a waterproof cuticle--in which stomata are sunken and protected from drying winds.

Evergreen habit - retention of foliage allows plants to photosynthesize as soon as temperatures permit in spring, rather than having to waste time in the short growing season merely growing leaves. [Note: Deciduous larch are dominant in areas underlain by nearly continuous permafrost and having a climate even too dry and cold for the waxy needles of spruce and fir.]

Dark color - the dark green of spruce and fir needles helps the foliage absorb maximum heat from the sun and begin photosynthesis as early as possible.

Podzolization, the process by which soils are depleted of bases and become acidic, occurs as a result of the acid soil solution produced under needleleaf trees. The main soil order associated with the taiga is acidic soil of low fertility.

Soil conditions result in sometimes extensive, persistent patches of vegetation other than spruce and fir:

bogs (muskeg) occur in poorly drained, glacial depressions. Sphagnum moss forms a spongy mat over ponded water. Growing on this mat are species of the tundra such as cottongrass and shrubs of the heath family. Black spruce and larch ring the edge.

Pine forests, in North America dominated by the jack pine, occur on sandy outwash plains and former dune areas. These are low nutrient, droughty substrates not tolerated by spruce and fir.

Larch forests claim the thin, waterlogged substrate in level areas underlain with permafrost. These forests are open with understories of shrubs, mosses and lichens.

The boreal forest is restricted to the northern hemisphere. It is circumpolar in distribution, as are many of the species which comprise it. In general, plants have different species represented on North America and Eurasia.

There are latitudinal zones within the forest. Running north to south, one finds the tundra/taiga - an open coniferous forest (the section most properly called taiga), the characteristic closed-canopy needleleaf evergreen boreal forest, a mixed needleleaf evergreen-broadleaf deciduous forest, and the Temperate Broadleaf Deciduous Forest. In the US, this southern ecotone is dominated by white pine, sugar maple, and American beech.

*Arctic tundra* is located in the northern hemisphere, encircling the North Pole and extending south to the coniferous forests of the taiga. The arctic is known for its cold, desert-like conditions. The growing season ranges from 50 to 60 days. The average winter temperature is -34° C (-30° F), but the average summer



temperature is 3-12° C (37-54° F) which enables this biome to sustain life. Rainfall may vary in different regions of the arctic. Yearly precipitation,

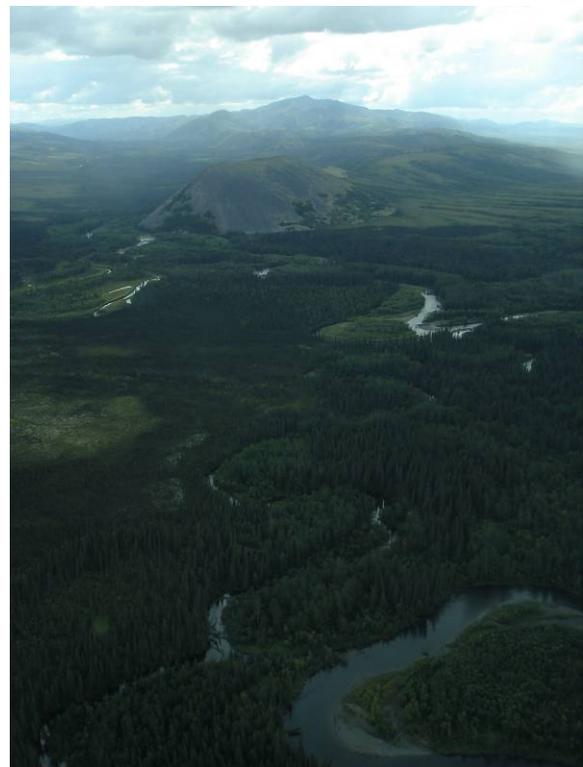
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including melting snow, is 15 to 25 cm (6 to 10 inches). Soil is formed slowly. A layer of permanently frozen subsoil or permafrost exists, consisting mostly of gravel and finer material. When water saturates the upper surface, bogs and ponds may form, providing moisture for plants. There are no deep root systems in the vegetation of the arctic tundra; however, there are still a wide variety of plants that are able to resist the cold climate. There are about 1,700 kinds of plants in the arctic and subarctic, and these include: low shrubs, sedges, reindeer mosses, liverworts, and grasses, 400 varieties of flowers, crustose and foliose lichen.

All of the plants are adapted to sweeping winds and disturbances of the soil. Plants are short and group together to resist the cold temperatures and are protected by the snow during the winter. They can carry out photosynthesis at low temperatures and low light intensities. The growing seasons are short and most plants reproduce by budding and division rather than sexually by flowering.

#### **3.2.1.7. Visual Resources**

The BLM has not formally inventoried or designated Visual Resource Management (VRM) classes for the lands traversed by the route. The BLM generally attempts to adhere to VRM Class II visual quality objectives for areas similar to these lands. The objective of a VRM class II classification is: “change is visible but does not attract attention.”



#### **3.2.1.8. Wildlife<sup>43</sup>**

The animals of interior Alaska must deal with nine to ten months of snow and cold. Most are migratory species that migrate to lower and warmer climates in the winter. Some year round residents cope by hibernating. Bears store fat during the summer months and pass the winter in hibernation. Some rodents live beneath the snow in tunnels and burrows.

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<sup>43</sup> See: [http://www.eoearth.org/article/Interior\\_Alaska-Yukon\\_lowland\\_taiga](http://www.eoearth.org/article/Interior_Alaska-Yukon_lowland_taiga)

Characteristic wildlife along the route are beaver, muskrat, mink, musk ox, caribou, moose, bison, coyote, wolf, wolverine, black bear, grizzly bear, marten, weasel, lemming, lynx, weasel, Arctic hare, and Arctic ground squirrel. Some of these animals are resident at or frequent Campbell Tract as well. In interior Alaska, musk-ox, caribou, and reindeer are the dominant large grazers, feeding on grass, sedge, lichen, and willow. Arctic hare, or snowshoe rabbit, and lemming feed on grass and sedge.

Reindeer were introduced into Alaska in the 1890's as a domestic herding animal. Remnants of those herds are found on the Seward Peninsula. Eighteen Bison were introduced in the Farewell Burn area in 1965. The herd grew to 350 animals by 1999 and was stable through 2003.

Interior Alaska ecoregions are largely intact, with little habitat loss or fragmentation. Most habitat loss is the result of disturbance around communities (Anchorage), seismic lines throughout the region, and oil and gas development. Subsistence and recreational hunting and fishing account for minor habitat loss. Metallic element ore and sand and gravel deposits have been mined, and there has been limited agricultural use along major rivers. There has been little historic fragmentation, except in the urban areas such as Anchorage; but interior Alaska, experiences enormous natural disturbances from fire.

Occurrence of lightning-ignited wildfire is common throughout. Soils are very susceptible to wildfire alteration, due to the relatively warm (-1.5°C) and shallow permafrost. Organic mat disturbance from wildfire can warm soils, significantly lower permafrost tables, alter soil properties and hydrology, and change vegetation composition.

Subsistence, commercial, and recreational hunting and trapping are common activities along portions of the race route.

Interior Alaska wildlife is vulnerable to habitat destruction, overhunting, and extinction through loss of any of the animal or plant species that make up fragile, highly individual food chains. Canadian Lynx, classified as a Special Status Species by BLM-Alaska, habituates the terrain traversed by the route.

**4.0. ENVIRONMENTAL CONSEQUENCES**

**4.1. Impacts of the Proposed Action – continuance of prior authorizations with increases in visits and visitor days**

**4.1.1. Critical Elements of the Human Environment**

**4.1.1.1. Air Quality**

During temperature inversions in winter, the air quality in the Anchorage Bowl, the site of Campbell Tract, occasionally fails to meet federal air quality standards. While spectator and dog team support vehicles will concentrate at Campbell Tract or its immediate vicinity in conjunction with the finish of the ceremonial start of the Iditarod, any decrease in air quality would be indiscernible from that generated by normal weekend traffic in the Anchorage vicinity.

Air quality at the Rohn Air Navigation Site and along the route will be impacted by snowmobile use, aircraft and the burning of wood and petroleum products for heating and cooking.

Two-stroke engines found in snowmobiles manufactured prior to 2006 are highly polluting. Lubricating oil is mixed with the fuel, and 20% to 33% of the mixture is emitted unburned into the air, onto the snow and eventually into water supplies. Also, the combustion process of two-stroke engines is inefficient and results in high emissions of air pollutants. Consequently, two-stroke snowmobiles manufactured prior to 2006 emit considerable amounts of carbon monoxide, unburned hydrocarbons and smoke.

The Environmental Protection Agency began regulating snowmobile emissions in 2002. The regulations require a reduction in a manufacture's fleet-wide production of snowmobiles of carbon monoxide and unburned hydrocarbon emissions by 30 percent by 2006, 50 percent by 2010, and 70 percent by 2012. The reduction is a fleet average for each manufacturer depending on the number and type of engines used each production year. The regulations have allowances for special use (racing) snowmobiles. The regulations do not cover particulate matter, although the 2012 emissions level will require a change of technology such as the use of four-stroke engines or direct-fuel-injection on two-stroke engines. The latter emits less carbon monoxide and unburned hydrocarbons than four-stroke equivalents.

In recent years, snowmobile manufactures have introduced four-stroke

snowmobiles which are cleaner and quieter. Quieter four-stroke snowmobiles reduce audible noise by about half and reduce carbon monoxide and unburned hydrocarbons by more than 80 percent over two stroke machines.

The snowmobiles used on Campbell Tract in conjunction with the finish of the Iditarod ceremonial start are either powered by four-stroke engines (BLM snowmobiles) or are presumed to be compliant with EPA's 2002 regulation (Anchorage Police Department Snowmobiles). The two snowmobiles used by the Anchorage Police Department on Campbell Tract are generally used solely for ingress and an egress to the Tract and then parked, unless needed for public safety or law enforcement purposes.

Both the Iron Dog and the Poker Run require that participants' machines be original manufactured, stock machines. The machines used by Iron Dog participants in 2008 were manufactured between 2006 and 2008. While there are a few vintage machines used by Poker Run participants, the majority is of recent vintage and presumed to be EPA compliant. The machines used on the route disperse an aspirated effluent over 1,900 miles of Alaska's terrain in a seven day period. The emissions are a necessary consequence of snowmobile racing. As the Iron Dog is a renowned competition in snowmobiling circles, it is assumed that newer machines will continue to be used with the eventual result that they will all be 2012 EPA emissions compliant. Over time, support machines, which may or may not require compliance with higher emission standards, will also cycle into newer models. The above considerations coupled with such a wide area of emission dispersal substantially reduce the intensity of air and water quality impacts and the level of environmental concern. Decreases in air and water quality attributable to snowmobile use in this context while present are negligible.

Although snowmobile emissions, aircraft emissions, wood stove smoke, and camp fire and cooking emissions may remain concentrated during temperature inversions they will disperse with inversion cycling.

#### **4.1.1.2. Cultural Resources**

These resources will be protected by the snow cover and frozen ground associated with the season of use. As the events are competitive, damage or loss of archaeological or historical resources will likely be inadvertent. Despite the nature of the events, there may be a risk of theft or vandalism, both of which fall within the realm of law enforcement, i.e. Archaeological Resources Protection Act of 1979 or theft or vandalism of government property.

The Rohn Shelter Cabin will be subjected to concentrated use; however, it not only remains an active *public* shelter cabin, but it has been used for the purpose of facilitating the races for years and has been subjected to concentrated use of a similar nature throughout those years. Degradation or deterioration of the cabin from *public* use is a reasonable expectation and manageable within the scope of a standard maintenance regime.

#### 4.1.1.3. **Invasive, Non-native Plants**

There is a potential for the introduction of invasive non-native plants from the straw used for the bedding of dogs at Campbell Tract, along the route and at the public shelter cabins.

To reduce the spread of noxious weeds on public and other lands where forage and mulch are used, State Soil and Water Conservation Districts have developed an Alaska Weed Free Forage and Mulch Certification Program. Under the program, crop fields are inspected to ensure the absence of seed and reproductive parts of noxious and invasive weeds. The Alaska program follows the North American Weed Management Association standards. The Alaska program not only inspects for the weeds and invasive plant parts targeted by the North American Weed Management Association it also inspects for weeds of concern in the Alaska. Once harvested and baled, bales are marked with a numbered certification tag and bound with orange and blue twine to distinguish program compliant bales.



The BLM has required the use of Alaska grown or certified weed free straw in association with the Iditarod since 1996. Today, certified, Alaska grown weed free straw is used not only by the Iditarod Trail Committee, Inc. and race participants on BLM lands but throughout the length of the route to prevent the transport of offending material throughout the route.

Additionally, the BLM has and currently requires that used straw be properly disposed of at Campbell Tract and burnt on site by trail sweeps at the Rohn Air Navigation Site and at rest areas along those route segments that traverse BLM lands.

With the exception of one unconfirmed incident of invasive non-native plant introduction, these measures have proven successful.

**4.1.1.4. ANILCA, Title VIII, Subsistence BLM managed lands**

Although it is reasonable to assume that the concentrated human activity occurring along the route may result in route avoidance by wildlife, there is no evidence to suggest that the avoidance behavior is greater than short term and temporary.

Conflicts with subsistence users along the trail could occur as the timing of the races overlaps that of open subsistence seasons for caribou and moose. The highest level of subsistence activity occurring during the time of the races occurs along the Kaltag Portage. Traffic congestion and the chance of encounters between high speed snowmobiles or dog teams and sleds and subsistence users could result in accidents. The intensity of snowmobile use associated with the races is brief and sporadic, lasting no more than a few days, see chart Paragraph 2.1.11. It does however occur in two waves through the Kaltag Portage, once on the way to Nome and once on the way to Fairbanks. There is a 20% reduction in snowmobiles traveling to Fairbanks. Both the Iron Dog and the Poker Run however require that race participants yield the right of way to other trail users. Encounters between Iditarod participants and subsistence users are managed through trail etiquette established by custom. Reason suggests that there will be a period of intense dog sled use upon arrival of the leading contenders of the Iditarod in the Kaltag Portage and that the level of intensity will subside and remain somewhat static until the end of the race in mid March. The Serum Run contingency of dog sleds and snowmobiles should move through the area in a single wave. After more than three decades of running the races, there have been no complaints by subsistence users.

In all cases the intensity of trail use through the Kaltag Portage is of a short duration.

It appears that the proposed winter, *specialized recreational uses* have not and will not significantly restrict Federal subsistence use, decrease the abundance of Federal subsistence resources, alter the distribution or movement of Federal subsistence resources, or limit qualified Federal subsistence user' access. It also appears that BLM's scheme for management of the races has resulted in the least impacts possible to rural residents who depend upon subsistence resources.

#### **4.1.1.5. Wastes, Hazardous or Solid**

During the finish of the ceremonial start of the Iditarod, human waste is managed through the use of portable facilities supplied by the Iditarod Trail Committee, Inc. Individual Iditarod participants are responsible for the proper disposal of all dog feces and straw used at Campbell Tract. Inspection of Campbell Tract's grounds by BLM personnel after hosting the finish of the ceremonial start of the Iditarod suggests that the Iditarod Trail Committee, Inc. is effectively managing post event cleanup.

Trash consisting of plastics, cans, dog booties, and burn barrel ash is found on the grounds of all of the *public* shelter cabins at the end of winter. Aircraft accessible, the Rohn Air Navigation Site, has the greatest quantity of post winter trash. Some of the material is directly attributable to the *public* nature of the facilities and some is directly attributable to the running of the races. The overall quantity of material however is within reasonable grounds' maintenance expectations for any *public* facility with similar levels of use. Grounds maintenance in this instance however is difficult given the remoteness of the facilities and the difficulty of gaining access to all but the Rohn Air Navigation Site during seasons other than winter.

Through agreements with the Iditarod Trail Committee, Inc. the Tesoro Iron Dog and the Ultra Sport, the grounds at all of the *public* shelter cabins are swept of debris during and shortly after the conclusion of the races. As some of the debris is inevitably buried in snow, the Iditarod Trail Committee, Inc. the Tesoro Iron Dog and the Ultra Sport have agreed to visit the Rohn Air Navigation Site shortly after the spring thaw to collect and properly dispose of the debris left at the Site. Rubbish is flown out of the Site to a land fill in McGrath. On those occasions when BLM staff visit the shelter cabins, it is common practice to inspect the facilities and to collect residual debris for proper disposal.

Portions of the lath used to mark the route are recycled by rural communities to mark other winter trails. The remaining lath is collected by trail sweeps upon completion of the races. However, as with other debris left in the field, trail markers are often buried in the snow. Accessing portions of the trail after the spring thaw is a costly proposition as it can only be done by aircraft, usually helicopters. Since the lath is biodegradable, residual lath is left in the field.

Canine feces are presumed to be evenly dispersed throughout the route and are left in the field to naturally decompose.

All fuel at the Rohn Air Navigation Site is staged at a prescribed location. All containers are scribed with appropriate ownership information. Fuel is dispensed from barrels set in a containment dike with a capacity to hold 110% of the volume of the fuel drum. Fuel spill pads are on site during fuel dispensing operations. All fuel storage containers are air lifted out of the Rohn Air Navigation Site at the conclusion of the races by the Tesoro Iron Dog and the Iditarod Trail Committee, Inc.

Current BLM-Alaska policy however is that all fuel be placed in secondary containment - whether in storage or actively being dispensed.

#### **4.1.1.6. Water Quality (Surface and Ground)**

Airborne contaminants associated with snowmobile use eventually settle on the snow and find their way into the active permafrost layer and other waters. The presence of contaminants is a necessary consequence of snowmobile use and the existence of pathways into water bodies is to be expected.

However, the level of contamination associated with the races is indiscernible from that associated with the overall necessary and practicable snowmobile use by rural residents (background contamination). Moreover, unlike the localized snowmobile use of rural residents, the snowmobile use associated with the races disperses contaminants over a route up to 1,971 miles in length and within a relatively short time frame, resulting in an insubstantial level of environmental concern. Canine fecal material is also sufficiently dispersed throughout the route over a similar time frame and results in an insubstantial level of environmental concern.

See the discussion on air quality in Paragraph 4.1.1.1. regarding the development of EPA emission standards for snowmobile manufacturers.

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**4.1.1.7. Wetlands/Riparian Zones**

Wetlands occur throughout the length of the route. Bear Creek, Paragraph 1.1.4; Innoko-Yukon Bottoms, Paragraph 1.1.7; and the wet tundra types along the Unalakleet River, Paragraph 1.1.8, are wetland areas where evidence of over 100 years of travel along the route is apparent. Segments of the route in those areas have been in active use since the Gold Rush era if not longer. Despite the long period of active use, the wetland and riparian zone areas appear relatively stable.

**4.1.2. Non-critical Elements of the Human Environment**

**4.1.2.1. Competing use**

From time to time, trail conditions on Campbell Tract may dictate alternate routing of the dog sleds as they traverse the Tract. Alternate routing may require the closure of multi-use trails. In that event hikers and skiers would be impacted. However, trail closures would only be in effect for ten hours on the first Saturday in March.

The plan for accommodating the event on the Tract is utilization of the dog sled trails only. Under the plan, mushers are impacted for ten hours. Closing of some trails on the Tract is necessary to accommodate the event; however, the duration of trail closures is limited to a ten hour period on the first Saturday in March. Assuming a level of camaraderie between mushers the situation should be tolerable for those that are inconvenienced.

For a discussion on specific conflicts with subsistence users, see Paragraph 4.1.1.4. The propensity for conflicts between subsistence and casual users of the route and participants in the snowmobile races will be high for a period of one week with a pronounced reduction thereafter, see chart Paragraph 2.1.11. During that one week period it is anticipated that there will be sporadic and localized periods of intensity as participants navigate the route and that these periods will be of a short duration – perhaps a few hours or more. By race rules snowmobile race participants are required to yield the right of way on the route to other trail users.

Conflicts between subsistence and casual users of the route and participants in the dog sled races will exist for a period of four weeks. The propensity for conflicts will increase one week into the scheduled races with the addition of the Iditarod participants in early March and it will continue for one week's time from Ruby to Nome until participants in the Norman Vaughn Serum Run leave the route. It will remain relatively high after that but less than when the Serum Run participants and their snowmobile contingent are on the route, see chart Paragraph 2.1.11. As

with the snowmobile races, periods of intensity of use will be sporadic and localized. Trail use by dog sled race participants and rural Alaskans is governed by customary trail etiquette.

Ultra Sport participants may be inconvenienced due to their mode of travel and the overlap of their adventures with the running of the Iditarod. Ultra Sport participants ending their experience at McGrath are required to complete the race route in ten days. Ultra Sport participants ending their experience at Nome are required to complete the race route in thirty days. Ultra Sport participants will be in the field at the same time as Iditarod participants. Thirty-one Ultra Sport participants will complete the route to McGrath with 18 in the field after McGrath. Unlike urban travel, prudence and reason suggest that pedestrians on the route will likely move aside for the passage of up to 16 canines with a dog sled in tow.

The Iron Dog and Poker Run will be completed before participants in the Iditarod and the Ultra Sport commence their races.

BLM's four public shelter cabins may become crowded from mid February through the end of March. As with trail use, cabin use will cycle through spikes of high and low use as race participants traverse the route. The Rohn and Old Women cabins are formal checkpoints for all of the races and may be subjected to a higher level of use as a consequence. Serum Run participants layover in rural communities along the route. As between the Iditarod Trail Committee, Inc. and other special recreation users, the Iditarod Trail Committee, Inc. will have a preference right to use of the Rohn Cabin.

For 2008, the only other special recreation users in the field at the same time as the Iditarod participants are the Ultra Sport participants. Despite the Iditarod Trail Committee, Inc.'s reservation of the Rohn Cabin, the cabins are both public and shelter cabins and cabin occupants, regardless of reservation, are expected to accommodate emergency needs and winter travelers.

There will be similar affects in the Farewell Burn during the State sponsored Bison Hunt with one exception – the Serum Run does not pass through the Farewell Burn.

#### **4.1.2.2. Noise**

Noise levels during the day long finish of the ceremonial start of the Iditarod at Campbell Tract are consistent with the noise levels of any outdoor event in an urban environment. It is reasonable to assume that resident wildlife engage in

avoidance behavior during the day long finish of the ceremonial start of the Iditarod. There is no evidence that the avoidance behavior results in long term displacement of resident wildlife.

While the Tract is on the edge of an urban area, the finish of the ceremonial start of the Iditarod occurs well within the grounds which are surrounded by forested areas that insulate the urban environment from the noise levels associated with the finish.

It is anticipated that noise levels at the Rohn Navigation Site, the public shelter cabins and on the route exceed the norm. Snowmobiles sound levels are not regulated by the Environmental Protection Agency. Increases in noise levels are a necessary consequence of increased human activity. However, the period of noise disturbance is of a short duration for all events, except perhaps at checkpoints, and sounds are dissipated shortly after they are generated. While it is reasonable to assume the sound levels trigger an avoidance response by wildlife there is no evidence to suggest that the propensity results in long term wildlife displacement.

#### **4.1.2.3. Personal and Public Safety**

By the very nature of the events and the environment in which they occur, participants knowingly assume a substantial level of risk. All race participants are required to carry Arctic survival gear. Participants in the snowmobile races are monitored through GPS/satellite technology. Participants in the Ultra Sport are preceded by trail breakers. As a practical matter, it is assumed that the trail breakers monitor the location of Ultra Sport participants. There is sufficient media and volunteer attention focused on Iditarod participants to assure them a reasonable level of safety.

Public safety, an issue of particular concern with regard to the snowmobile races, is provided through race rules requiring the yielding of the right of way on the route to other trail users. Public safety during the running of the Iditarod is provided for through customary trail etiquette.

Personal and public safety management at Campbell Tract is provided by the Iditarod Trail Committee, Inc., the Anchorage Police Department and BLM staff.

#### **4.1.2.4. Soc-economic**

A sense of the cultural and social import of the Iditarod and the other events can be gained by reading the multitude of pages devoted to the Iron Dog (Gold Rush Classic), the Ultra Sport, the Iditarod and dog mushing on the World Wide Web.

The following article appearing in the *Alaska Business Monthly*, on March 1, 2002 provides an additional perspective on the cultural, social and economic import of the Iditarod.

In 1925, the predecessor of the modern-day Iditarod took the form of 20 dog teams relaying over 647 miles to deliver a lifesaving serum to the people of Nome who were poised to wage war against a full-blown diphtheria epidemic. Seventy-seven years later, the Iditarod--a grueling 1,049-mile sled dog race from Anchorage to Nome that commemorates that event and the historic trade path it followed--has become a part of the mystique and reality of life in The Last Frontier. And for some Alaska communities and businesses, the Last Great Race translates into serious money.

"The last time we did a study on the Iditarod's economic impact (on Alaska) was in 1993," said Stan Hooley, executive director of the Iditarod Trail Committee. "It was \$16 million that year and I think it is substantially higher now due to the increasing popularity of the race."

With more than 39 sponsors donating in-kind services or up to \$150,000 in cash to garner the race's top business title (and market share) of "Presenting Sponsor," the Iditarod attracts some of Alaska's top rollers--Alaska Dodge Dealers, Cabelas, GCI, Wells Fargo, Alaska Airlines, Alaska's Superstation, Fred Meyer, etc.-to help put on the \$2.6 million event.

"Being an Iditarod sponsor provides a more positive story than most people think," explained Hooley. "A great deal of positive association goes along with aligning your company with the Iditarod. Not only in Alaska, but also outside and even worldwide."

"Last year there were roughly 15,000 people in Anchorage and Eagle River for start day and more than 300 credentialed members of the international media covering the race," he said. "But the bigger picture is captured as you fly over the trail and see the thousands of snow-machines and airplanes parked 50 miles from the nearest road--tailgating, if you will, the Iditarod."

It's hard to gage exactly how many people attend the event every year since the world's most famous sled dog race doesn't sell tickets, lasts for more than a week and runs over 1,000 miles. Regardless, the Iditarod is good business for Anchorage where the race begins, according to Jeanette Mores of the Anchorage Convention and Visitors Bureau.

"There is a dramatic jump in hotel room occupancy in the month of March and the numbers grow every year," said Mores. "Iditarod fans, who come from all over the world, are eating in our restaurants, shopping in our stores and visiting our cultural events and performing arts. Plus, our visitors from rural Alaska are shopping at our big box stores and taking in movies."

In Wasilla, City Planner Tim Krug says it's hard to pinpoint the race's impact precisely but the Iditarod is a part of the city's economy.

"Businesses like to see the Iditarod come here every year and prepare for it," said Krug. "Wasilla's claim to fame is that we're the home of the Iditarod and we take that very seriously."

In Nome, home of the Iditarod's finish line, the race makes a significant contribution to the community's coffer, according to City Manager Randy Romenesko.

"Our bed tax and sales tax revenue definitely spike up in March," said Romenesko. "The race kicks us out of the winter doldrums as far as spending and money coming into the community. It's a serious influx of money when we can really use it. January and February are historically pretty flat months up here."

But the Iditarod is not just about the one day that the race passes through a particular community, according to Hooley of the Iditarod Trail Committee.

"I think it would be a mistake to try to measure the impact of the Iditarod by sales tax on the day it is passing through a place," he said. "On that one day, the impact is substantial but there also is Iditarod traffic all year-round in Alaska. We have between 15,000-20,000 visitors at Iditarod headquarters in the summer, and the bulk of them are independent travelers who have made it a point to find us."

For Mores of the Anchorage Convention and Visitors Bureau, whose job responsibilities revolve around selling Alaska's largest city as a destination to both business and leisure travelers, the Iditarod creates a sum larger than its part.

"This race ties us back to our Alaskan roots and highlights all the unique qualities of our history," she said. "Alaska really is the Last Frontier and the Last Great Race really ties in perfectly with that image. It's a big draw for meeting planners, visitors and Alaskans alike. The fervor and excitement about this race is really unparalleled-from both our visitors and the people who live throughout the state."

In interior Alaska, general use of the Iditarod National Historic Trail system, and local spur trails, has expanded with the increased reliability of snowmobiles. Interior Alaska communities may make goods and services available for users of the Trail. The scale of this commerce is unknown and the lifestyle in interior Alaska remains predominantly a subsistence lifestyle.

#### **4.1.2.5. Soils**

In the absence of adequate snow cover along the route, the running of the races, particularly the snowmobile races, will damage the vegetation mat that insulates the permafrost. Damage amounting to removal of the vegetation mat will result in melting permafrost.

In 1996 and 2002, BLM conditioned its authorization of the races on the presence of adequate snow cover and ground frost to accommodate the running of the events. In both years it was suggested that adequacy was met with one foot of snow and one foot of ground frost throughout the route.

Changing climatic conditions have recently redefined adequacy to "... sufficient snow cover and/or ground frost as to avoid long term damage to tundra or wetland vegetation and soils." Changing climatic conditions may eventually require monitoring and/or re-routing of the races.

#### 4.1.2.6. **Vegetation**

Winter trail use impacts vegetation by snow compaction; obviously more so with an absence of snow cover. Snow compaction increases with the number of passes over the snow and is affected by factors such as weight and the width of the point of contact with the snow. Snow compaction lowers species diversity and can destroy individuals and reduce plant populations in areas of heavy use. Snow compaction may cause a shift in the abundance of one species of plant in favor of a more tolerant species. Snow compaction may damage tree samplings – the young conifers of the boreal forest are most vulnerable.

Several studies reveal that snow compaction from snowmobiles in particular can have harmful impacts on vegetation, including saplings, shrubs, and grasses. Saplings, pine, and white spruce have a high sustained rate of severe damage, and even death, after as little as one or two passes by snowmobiles.<sup>44</sup>

Snow compaction affects vegetation productivity and growth, organic matter decomposition, humus formation, and microbial activity, by decreasing soil temperature and slowing snowmelt.<sup>45</sup>

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<sup>44</sup> Neuman, P.W. and H. Merriam. Ecological Effects of Snowmobiles. *The Canadian Field-Naturalist*. 86:207-212. 1972.

Wanek, W.J. 1971a.

Wanek, W.J. A Continuing Study of the Ecological Impact of Snowmobiling in Northern Minnesota (Final Research Report for 1971-1972). The Center for Environmental Studies. Bemidji State College, Bemidji, MN. 1973.

<sup>45</sup> Aasheim, R. Snowmobile Impacts on the Natural Environment. In Andres, R.N.L., and P. Nowak. *Off-Road Vehicle Use: A Management Challenge*. U.S. Department of Agriculture, Office of Environmental Quality, Washington, DC. 1980.

Keddy, P.A., A.J. Spavold, and C.J. Keddy. Snowmobile Impact on Old Field and March Vegetation in Nova Scotia, Canada: An Experimental Study. *Environmental Management*. 3(5):409-415. 1979.

Wanek, W.J. Snowmobiling Impact on Vegetation, Temperatures and Soil Microbes. In Chubb, J., 1971. *Proceedings of the Snowmobile and Off the Road Vehicle Research Symposium*. College of Agriculture and Natural Resources, Department of Park and Recreation Resources, Recreation Resources and Planning Unit. Tech. Rep. 8. Michigan State University, East Lansing, MI. 1971.

Wanek, W.J. 1971a.

Wanek, W.J. A Continuing Study of the Ecological Impact of Snowmobiling in Northern Minnesota (Final Research Report for 1971-72). The Center for Environmental Studies. Bemidji State College, Bemidji, MN. 1972.

Wanek, W.J. A Continuing Study of the Ecological Impact of Snowmobiling in Northern Minnesota (Final

When air spaces in snow are compacted, the insulating capacity of the normal blanket of snow is reduced and the snow conducts cold air to the ground more effectively, subjecting vegetation to abnormal extremes of temperature. Compacted snow melts more slowly than that on unused areas and retards spring, plant growth. Delayed snowmelt may also postpone seed germination and delay plant flowering. Snow compaction also reduces the number of bacteria and fungi under compacted soil and affects the growth rate of vegetation dependant on those organisms.

Snow compaction can also prevent microtine rodents from crossing beneath and grazing within a trail bed. As a result, the areas adjacent to the trail bed can be grazed heavily. When this occurs over ice wedges, the wedges can melt more quickly than normal causing subsidence. Compacted snow will also affect drainage patterns during the spring thaw, and can result in a long-term change in vegetation composition within adjacent plant communities. The degree of disturbance resulting from snow compaction depends upon substrate conditions (particularly moisture), snow cover and the number of passes made over the snow.

Disturbance of the vegetation mat over ice rich soils, whether from winter kill or mechanical means, permits heat to reach the permafrost underneath, resulting in an increased depth of thaw. If there is very little ground ice, plant growth can stabilize the surface and major subsidence is not a concern. If large quantities of ice are in the soil, there is a potential for subsidence and/or thermal erosion. Permafrost will continue to thaw until a new point of stability is reached. If vegetation mat disturbance occurs on a slope, thawed material will flow, leaving a gully. It will then be difficult for natural plant cover to re-establish itself.

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Research Report for 1971-72). The Center for Environmental Studies. Bemidji State College, Bemidji, MN. 1973.

Wanek and Schumacher. 1974.

Wanek, W.J. The Ecological Impact of Snowmobiling in Northern Minnesota. Environmental Impact Studies. Division of Science and Mathematics, Bemidji State College, Bemidji, Minnesota. Undated.



**Evidence of changes in vegetation composition due to snow compaction.**

Although the effects of snow compaction are of environmental concern; snow compaction is a necessary consequence of winter trail use. Winter trail use is a necessity of life in interior Alaska where rural residents are dependant upon a subsistence lifestyle. With the exception of the Southern Route of the Iditarod National Historic Trail system, the route is a daily travel corridor used by rural Alaskans for inter-community travel and for access to subsistence resources. The above notwithstanding, after 35 years of the winter, *specialized recreational use* discussed here, it appears that changes in the Trail bed's vegetation composition have ceased. Further, when portions of the Trail corridor fell into a period of disuse between the early 30's and the early 70's and the Trail corridor was allowed to re-vegetate itself, it took another effort by the United States Army to re-blaze the trail.

While the Iron Dog and Poker Run snowmobile races mandate specific courses in various areas, in all other areas "The race course shall consist of any route

between official checkpoints.”<sup>46</sup> Since the Iron Dog and Poker Run readily impose their own course restrictions, as those races are the first groups over the route, as they traverse the route by mechanical means, and for the reasons stated above, it is suggested that where snow and frost conditions are inadequate to prevent damage to vegetation and soils, the Iron Dog and Poker Run participants remain within the Trail corridor.

#### 4.1.2.7. Visual Resources

Segments of the route are visible from the air as a result of a differentiation in vegetation composition.



**Kaltag Portage 2007**

Other segments of the route are difficult to spot even on the ground. The following is a photograph of Farewell Burn. The area completely burned over in late 1970's. It is in the rain shadow of the Alaska Range and receives little precipitation and less snow cover than other segments of the route. It is also wind swept. Consequently, the vegetation mat is at risk from winter ground travel through the area. Yet it is difficult to locate evidence of the route in this summer, ground photograph of the area.

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<sup>46</sup> 2008 Iron Dog *Race Course* rules 1 through 5.



**Farewell Burn 2001**

The visual impacts associated with the winter trail use including the running of the races are indirect results of snow compaction and direct results of changes in vegetation composition from snow compaction. They too are a necessary consequence of winter trail use. Winter trail use is a necessity of life in interior Alaska where rural residents are dependant upon a subsistence lifestyle. With the exception of the Southern Route of the Iditarod National Historic Trail system, the route is a daily travel corridor used by rural Alaskans for inter-community travel and for access to subsistence resources. The above notwithstanding, after 35 years of the winter, *specialized recreational use* discussed here, it appears that changes in the visual impression of the terrain have ceased in direct correlation with stabilization of the composition of the vegetation.

It is assumed that in time, termination of all winter use of the Trail's corridor, casual and recreational, would result in natural re-vegetation of the corridor and reversion to an undisturbed visual impression.

#### **4.1.2.8. Wildlife**

For small mammals such as voles, mice, and shrews that remain active throughout the winter, the subnivean environment between snow and earth provides a critical zone relatively protected from predators, insulated from freezing air temperatures, and offering access to food sources. Trail and snow compaction can crush small mammals living in the subnivean environment. Although unlikely given the vastness of the wilderness areas traversed by the route, a decline in small mammal

populations may lead to decreased numbers of predatory species such as lynx, hawks, owls, weasels and other mustelids.

Loss of subnivean environment and associated small mammal populations is a necessary consequence of winter trail use. While the area of a winter trail approximately 1,150 miles long and the consequential loss of the subnivean environment associated with it may seem substantial, within the context of the vast undisturbed regional terrain and similar habitat traversed by the route it is reasonable to categorize the loss as insubstantial.

It is probable that resident wildlife along the route is temporarily displaced from the area. The degree to which this behavior is attributable to the running of the races is indiscernible as the route is also a travel corridor for rural Alaskans engaged in subsistence hunting activities. In the event that wildlife is not in the habit of avoiding the area along the route, it is likely that noise from human activity will trigger a flight response and result in temporary displacement.



**Sled Dogs encounter with wild life – Musk Oxen**

There is a risk of wildlife encounters. While such encounters may be simply confrontational as the above photograph suggests others may result in loss of wildlife, inadvertently or in defense of life or property. Wildlife encounters with high speed snowmobiles could be lethal. There have been incidents of wildlife encounters with mushers resulting in wildlife loss in defense of life and property. The risk of such encounters is a necessary consequence of winter trail use in

Alaska. The levels of risk will fluctuate in accordance with the level of intensity of trail use, chart Paragraph 2.1.11. and the proximity of race participants to wildlife particularly large concentrations, such as the Western Arctic Caribou Herd that winters north of the Kaltag Portage. There is no evidence to suggest that wildlife encounters would result in wildlife habitat fragmentation or a substantial reduction in wildlife populations.

**4.1.3. Cumulative Impacts associated with continuance of prior authorizations with increases in visits and visitor days**

Cumulative impacts result from the incremental impact of human activity when added to other past, present, and reasonably foreseeable future human activity. They can result from individually minor but collectively significant actions taking place over a period of time.<sup>47</sup> (40 CFR § 1508.7)

Well before Vitus Bering began his explorations of the North Pacific, portions of the route were used as winter travel corridors by the indigenous peoples of Alaska. Russian fur traders used the corridors to access interior Alaska. Miners used the corridors to travel from mining town to mining town. In 1908 -1910, the United States Army incorporated these corridors into a winter trail from Seward to Nome to allow for the delivery of mail and supplies to ice bound residents in Nome and other communities along its route. Although portions of the winter trail fell into a period of disuse and became impassable, other portions of the winter trail continued to be used for inter-community winter travel and access to subsistence resources.

After 40 years of disuse, the United States Army in the early 1970's once again connected the interior portions of the trail and re-blazed the trail from the Anchorage bowl through interior Alaska to Nome. Since that time, mushers, snowmobilers and adventurers, in these and similar races, have joined interior Alaskans on the winter trail while traversing the State. Packing of the route and dressing of the winter trail to accommodate the races has, for thirty-five years, opened interior Alaska to an increase in winter, ground travel.

Given the long history of the winter trail's use, including the thirty-five year history of the trail's use for these purposes, there are likely no cumulative impacts from past actions that have not stabilized. An inordinately high increase in use of the winter trail or an environmentally insensitive or inappropriate use of it, such as use by inappropriate vehicles, in or out of the winter months, could de-stabilize the current state of the environment. Failure to consider the prospects of climate

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<sup>47</sup> 40 CFR § 1508.7

change in managing any use of the Iditarod National Historic Trail corridor could lead to undesirable and unintended consequences, 42 U.S.C. §4331(b)3.

However, with proper management winter, *specialized recreational use* may continue on BLM lands traversed by the route of the Iditarod National Historic Trail system. The winter trail will continue to be compacted by snowmobiles, dog sleds and pedestrians and snow compaction will continue to be a necessary consequence of winter trail utilization. The vegetation composition along the trail bed will remain relatively stable and the visual impacts of travel along the winter trail will be limited to the present corridor. There will continue to be inadvertent wildlife encounters and wildlife will continue to engage in fright or flight responses; however, wildlife avoidance behavior will only result in temporary displacement rather than habitat fragmentation. In the event the Arctic's climate continues to change, continued winter, *specialized recreational use* of the Trail corridor may require and be dependant upon an assessment of trail conditions – particularly the effects associated with thawing permafrost. Routing of the races may change to accommodate new environmental conditions or concerns.

Nonetheless, interior Alaska will likely remain virtually roadless and throughout the interior, a network of winter trails will continue to appear along established travel routes between communities and subsistence harvest areas.

#### **4.1.4. Mitigation Measures for continuance of prior authorizations**

The following mitigation measures are recommended and are either in addition to or an enhancement of the mitigation measures contained in the proposed action:

1. All fuel flown into the Rohn Air Navigation Site must be stored in secondary containment with a minimum capacity of 110% of the capacity of the largest container within the containment device. An adequate supply of appropriate fuel spill absorbent pads must be on Site and present during all fueling operations. Fuel stored on Site must be placed in a prescribed area, a minimum of 100 feet from public shelter cabins and water sources. The event name and date must be recorded on all fuel containers (e.g. 55 gallon drums, Coleman fuel cans, propane bottles, etc.). A bond will be posted to insure the removal of all unused and empty fuel containers from BLM lands. Failure to deploy and employ fuel containment devices or fuel spill response devices or failure to remove all fuel and containers from the Site shall be grounds for terminating a Special Recreation Permit.

2. All snowmobiles used on BLM lands in conjunction with authorized winter, *specialized recreational uses*, shall be in compliance with EPA emission standards for the brand, model and year of production of the machine.
3. While on BLM lands, every effort will be made to navigate dog sleds and snowmobiles over ground with sufficient snow cover and ground frost to protect the underlying vegetation and soil.
4. No vehicle used on BLM lands in conjunction with winter, *specialized recreational use* shall exceed 1,000 pounds in Gross Vehicle Weight or 60 inches in width.
5. To prevent the introduction of invasive non-native plants, all straw used for dog bedding on BLM lands and all straw used at rest stops within 50 miles prior to entering BLM lands shall be Alaska Certified Weed Free straw or, if imported from out of state, certified weed free straw. All straw used on BLM lands shall be burnt on site. Failure to use Alaska Certified Weed Free straw or certified weed free straw from out of state while on BLM lands or at rest stops within 50 miles prior to entering BLM lands or failure to properly and thoroughly dispose of used straw shall be grounds for terminating a Special Recreation Permit.
6. Trash shall not be burnt within 100 feet of any cabin or historic structure.

**4.2. Impacts of Alternative B: No action alternative – discontinuance of prior authorizations.**

As stated in Paragraph 2.2, it is presumed that failure to continue to authorize the races may result in re-routing of the races to avoid BLM lands. While such a proposition is logistically challenging, it may be doable by making maximum use of the many frozen waterways in Alaska. Although such a scenario may result in prevention of unnecessary or undue degradation of BLM lands and protection of their resources, it may not avoid or minimize adverse impacts on the quality of the human environment as it would simply visit those impacts on lands whose only distinction is non-Federal ownership. In the event of re-routing the race course, the environmental consequences would be the same as those discussed in Paragraphs 4.1 through 4.1.3. For that reason, the following discussion will presume a non-rerouting scenario.

**4.2.1. Critical Elements of the Human Environment**

**4.2.1.1. Air Quality**

Discontinuance of the prior authorizations will result in fewer snowmobiles in the field; however, their absence will have an indiscernible effect on air quality given the prevalence of the snowmobile as a mode of winter ground transportation in interior Alaska.

**4.2.1.2. Cultural Resources**

Risks of inadvertent harm to cultural resources may diminish solely as a consequence of fewer individuals roaming about interior Alaska. Risks of intentional harm may diminish but since participants in the races are engaged in and focused on a competition, the reduction in risk would presumably be very slight.

The shelter cabins, historic or otherwise, would continue to deteriorate and would continue to require maintenance.

**4.2.1.3. Invasive, Non-native Plants**

Discontinuance of the prior authorizations would eliminate one source for possible introduction of invasive non-native plants onto BLM lands in interior Alaska.

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**4.2.1.4. ANILCA, Title VIII, Subsistence BLM managed lands**

**4.2.1.5. Waste, Hazardous or Solid**

There would presumably be a reduction in seasonal trash at BLM's shelter cabins and a reduced risk of fuel spills at the Rohn Air Navigation Site. However, BLM would lose the services of the race promoters and would incur higher ground's maintenance expenses.

**4.2.1.6. Water Quality (Surface and Ground)**

As with air quality, discontinuance of the prior authorizations will result in fewer snowmobiles in the field; however, their absence will have an indiscernible effect on water quality given the prevalence of the snowmobile as a mode of winter ground transportation in interior Alaska. There would be a reduction in dog feces but it too would have an indiscernible effect on water quality.

**4.2.1.7. Wetland/Riparian Zones**

There would be less winter ground travel through wetlands and riparian zones; however, the positive effects of the reduction would also be indiscernible as the route is also common winter travel route for interior Alaskans.

**4.2.2. Non-critical Elements of the Human Environment**

**4.2.2.1. Competing use**

The consequences of the intensity of use associated with the races would be eliminated. Casual use would continue.

**4.2.2.2. Noise**

There would be fewer gatherings or concentrations of travelers along the route and a corresponding reduction in the sounds associated with such gatherings. As the route is common travel route by rural Alaskans, the avoidance behavior of wildlife would continue albeit less often and perhaps for shorter durations.

**4.2.2.3. Personal and Public Safety**

Fewer individuals would expose themselves to the high level of risk associated with participating in the races; although, they may seek adventure elsewhere. There would be a reduction in the public safety risks associated with high speed snowmobile racing across the tundra and less congestion along the route.

**4.2.2.4. Soc-economic**

Although the extent of or duration of adverse economic or social effects alone are not individually or cumulatively relevant to an analysis of the relationship of

people with the environment,<sup>48</sup> it remains that discontinuance of the authorizations would result in substantial adverse economic consequences within the State of Alaska. The end of the Iditarod would also have a profound social and cultural impact on the mushing community and Alaskans.

**4.2.2.5. Soils**

There may be a slight decline in the risk of damage to permafrost; however, it too would be indiscernible in the context of climate change and the continued use of the route as a travel corridor by rural Alaskans.

**4.2.2.6. Vegetation**

Change in the composition of vegetation within the trail bed is presumed to have stabilized at its current condition after 35 years of use. With the exception of the Southern Route of the Iditarod National Historic Trail, there would be an indiscernible reduction of impacts to vegetation along the route as the route would remain in use as a travel corridor by rural Alaskans. Vegetation along the Southern Route may naturally restore itself; however, the period of restoration is unpredictable given the nature of the boreal forest and the uncertainties of climate change.

**4.2.2.7. Visual Resources**

Since the impacts to visual resources are traceable to the effects of snow compaction and since the winter travel routes will remain in use as travel corridors by rural Alaskans, it is unlikely that there would be any restorative impact on visual resources along the route. The Southern Route of the Trail would incur a restorative impact in conjunction with vegetation restoration.

**4.2.2.8. Wildlife**

Discontinuance of the prior authorizations would result in less risk of high speed snowmobile impacts with wildlife. Wildlife would still engage in avoidance behavior as the route would remain in active use as a travel corridor by rural Alaskans.

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<sup>48</sup> 40 CFR §1508.14

**4.2.3. Cumulative Impacts of Alternative B: discontinuance of prior authorizations.**

Although the extent of or duration of adverse economic or social effects alone are not individually or cumulatively relevant to an analysis of the relationship of people with the environment,<sup>49</sup> the loss of revenue to individuals, and communities along the trail may contribute to depressed economic conditions in many locations. For some, the commercial stimulus of the activities along the trail may be a substantial part of their income.

Trail maintenance and repair, currently undertaken by race promoters, would not occur and may lead to a deterioration of trail conditions.

**5.0 CONSULTATION AND COORDINATION**

**5.0.1. List of Preparers**

The following BLM specialists participated in the preparation of this analysis:

Donna Redding	Cultural Resources
Laurie Thorpe	Vegetation, Invasive/Non-Native Species
Kevin Keeler	Iditarod Trail
Geoff Beyersdorf	Subsistence
Doug Ballou	Recreation/Visitor Services, Visual Resources
Rodney Huffman	Lands and Realty
Joe Kurtak	Soils, Surface Protection
Larry Beck	Waste, Hazardous/Solid
Bruce Seppi	Wetlands/Riparian Zones, Threatened or Endangered Species, Subsistence, Wildlife
Jeff Kowalczyk	Recreation/Visitor Services, Wilderness, Wild & Scenic Rivers
James Moore	Planning and NEPA Coordinator

**5.0.2. References**

USDA FS, (2002). Managing Degraded Off-Highway Vehicle Trails in Wet, Unstable, and Sensitive Environments. 2E22A68 – NPS OHV Management.

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<sup>49</sup> Note 45 *supra*.

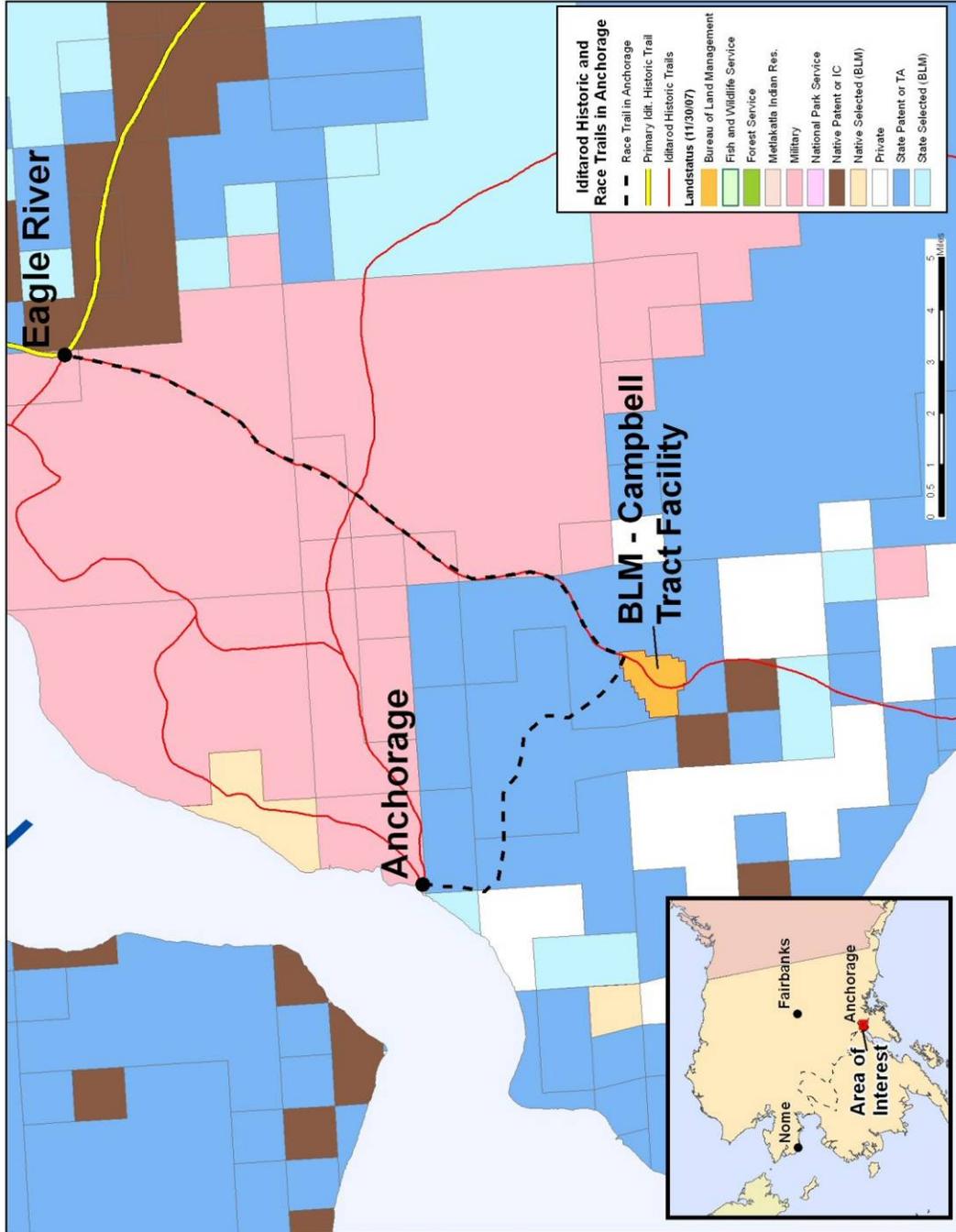
**5.0.3. Agency and Public Consultation**

Alaska Department of Fish and Game  
Alaska Department of Natural Resources  
U.S. Fish and Wildlife Service  
The Iditarod National Historic Trail Advisory Council  
Native corporations with interests in selected lands along the route.

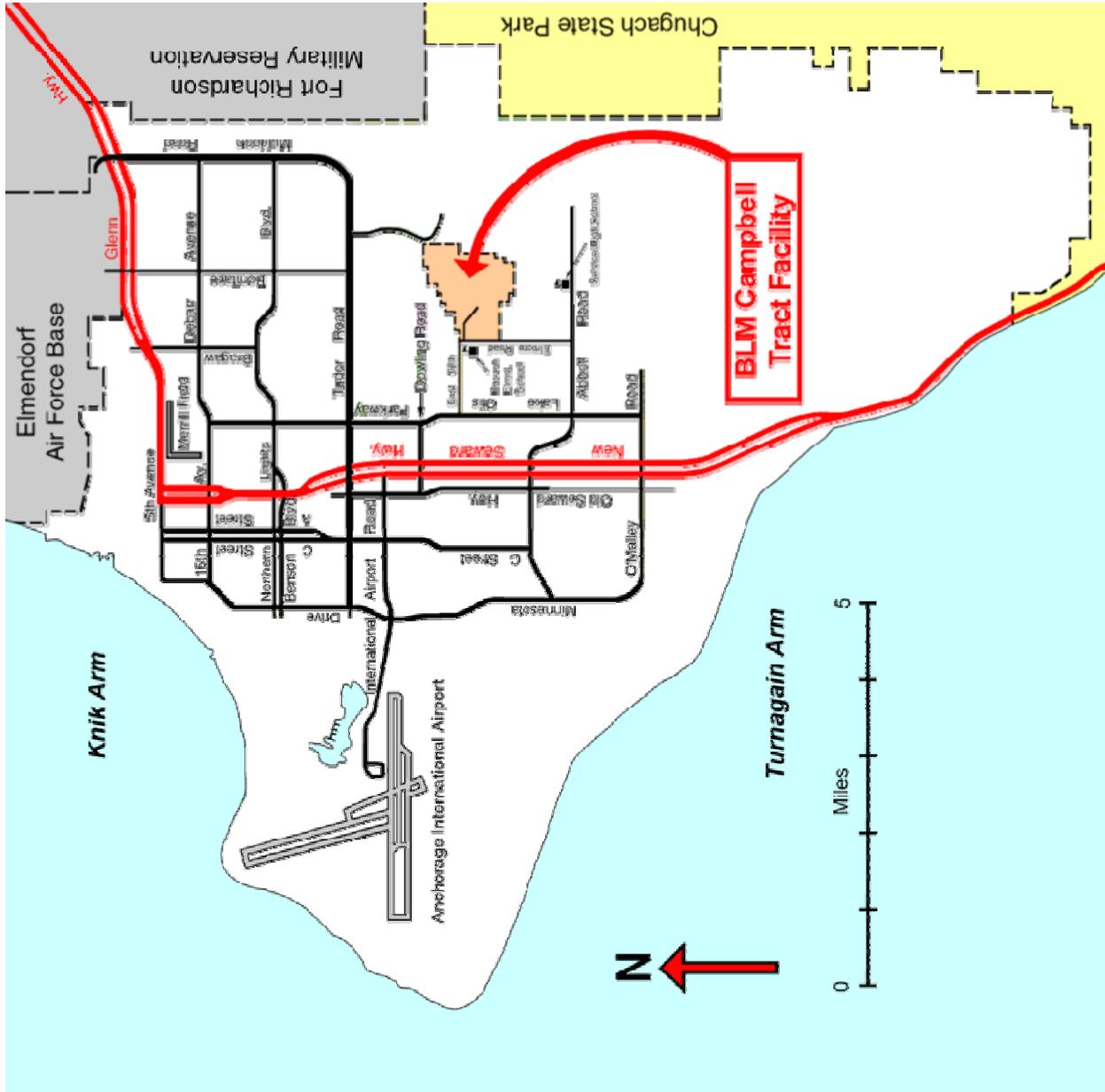
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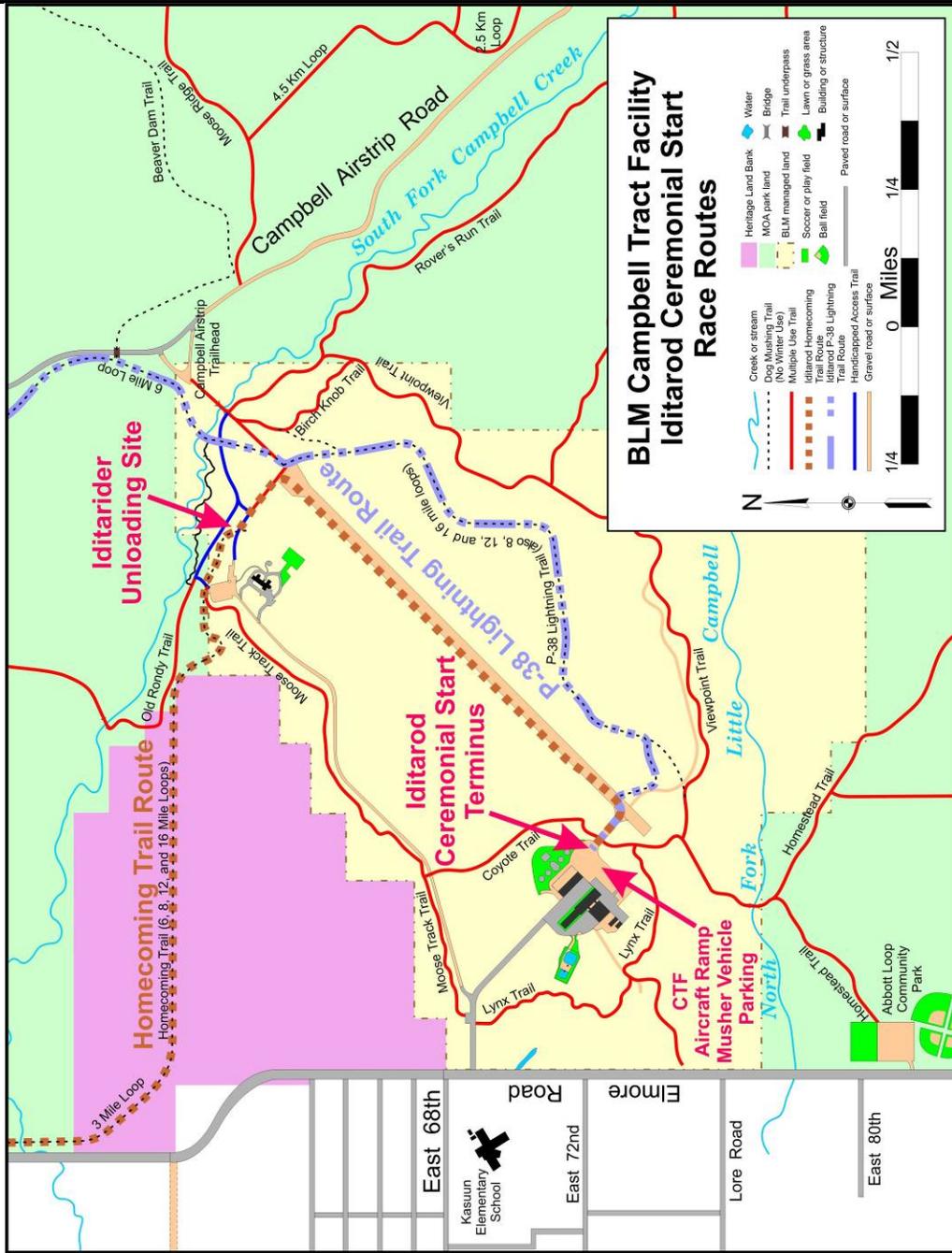
**Appendix A –Maps**



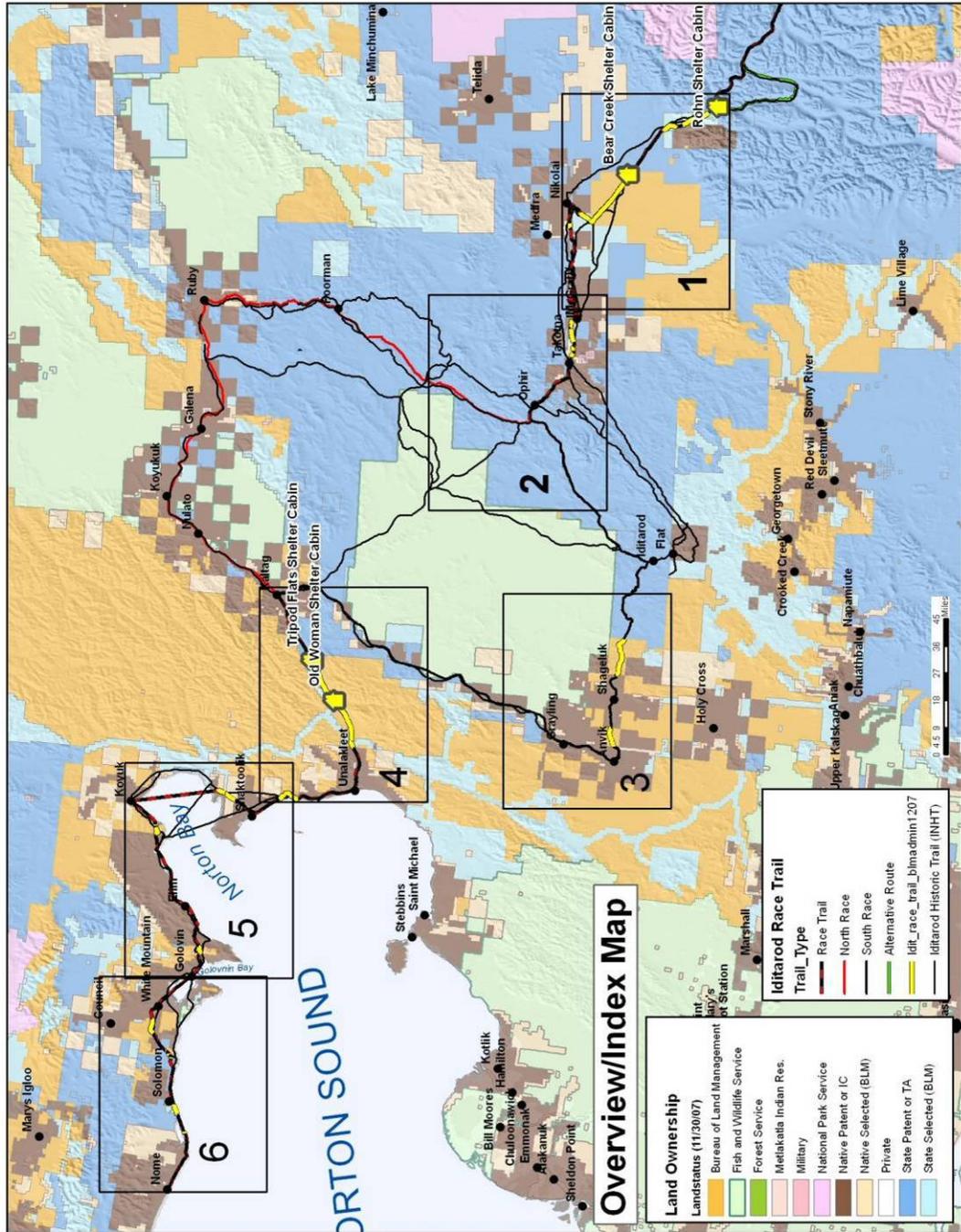
Map 1 Appendix A



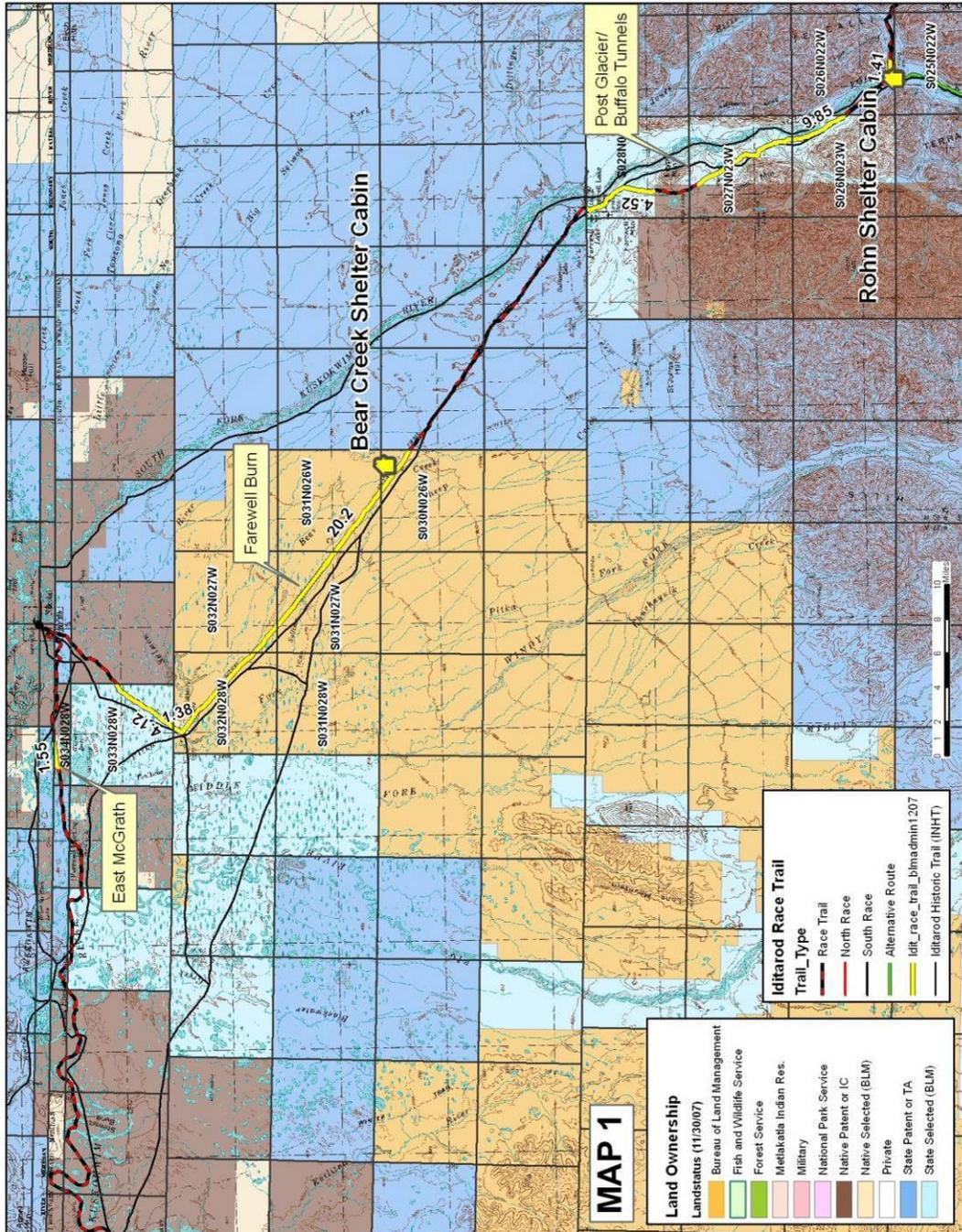
Map 2 Appendix A



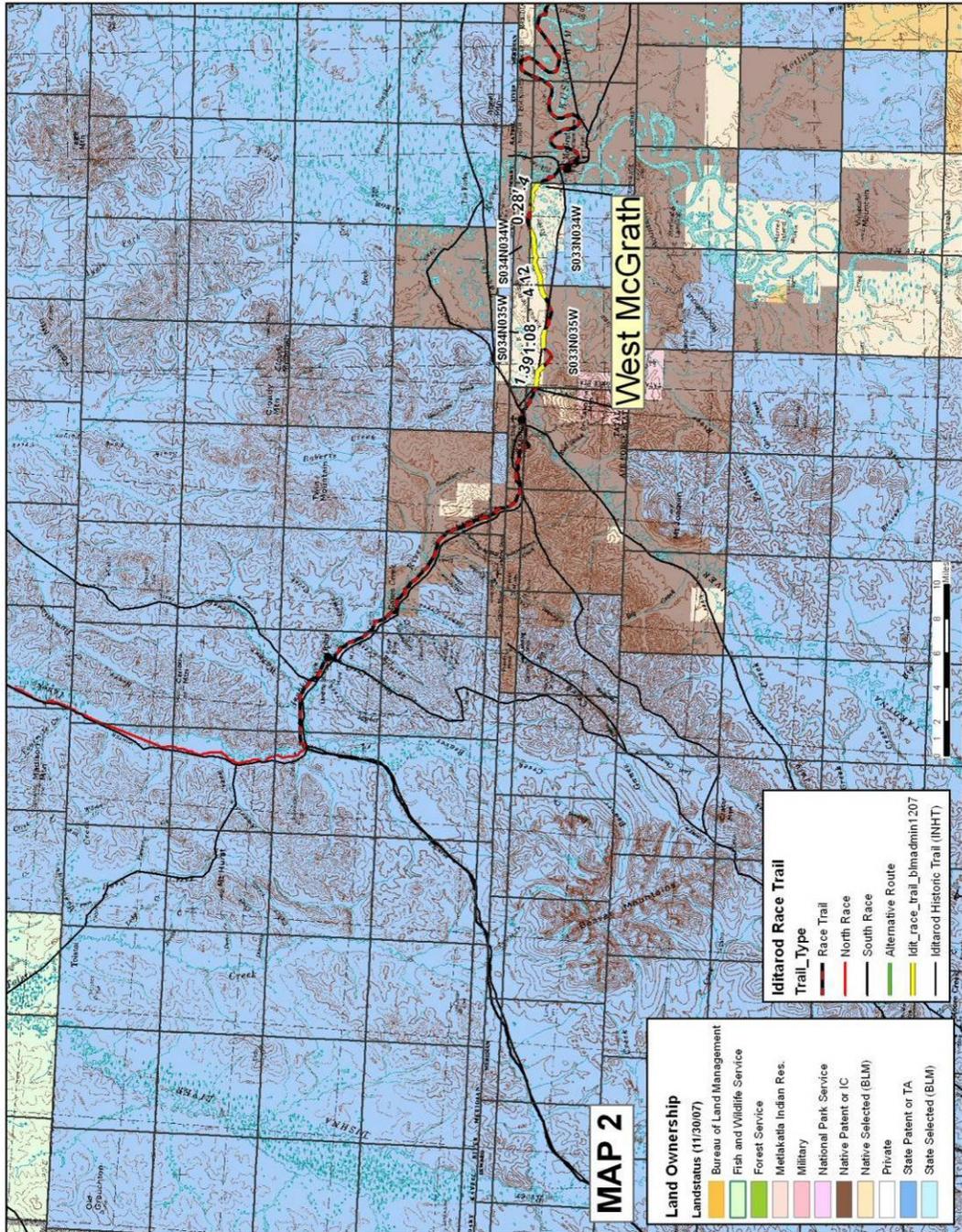
Map 3 Appendix A



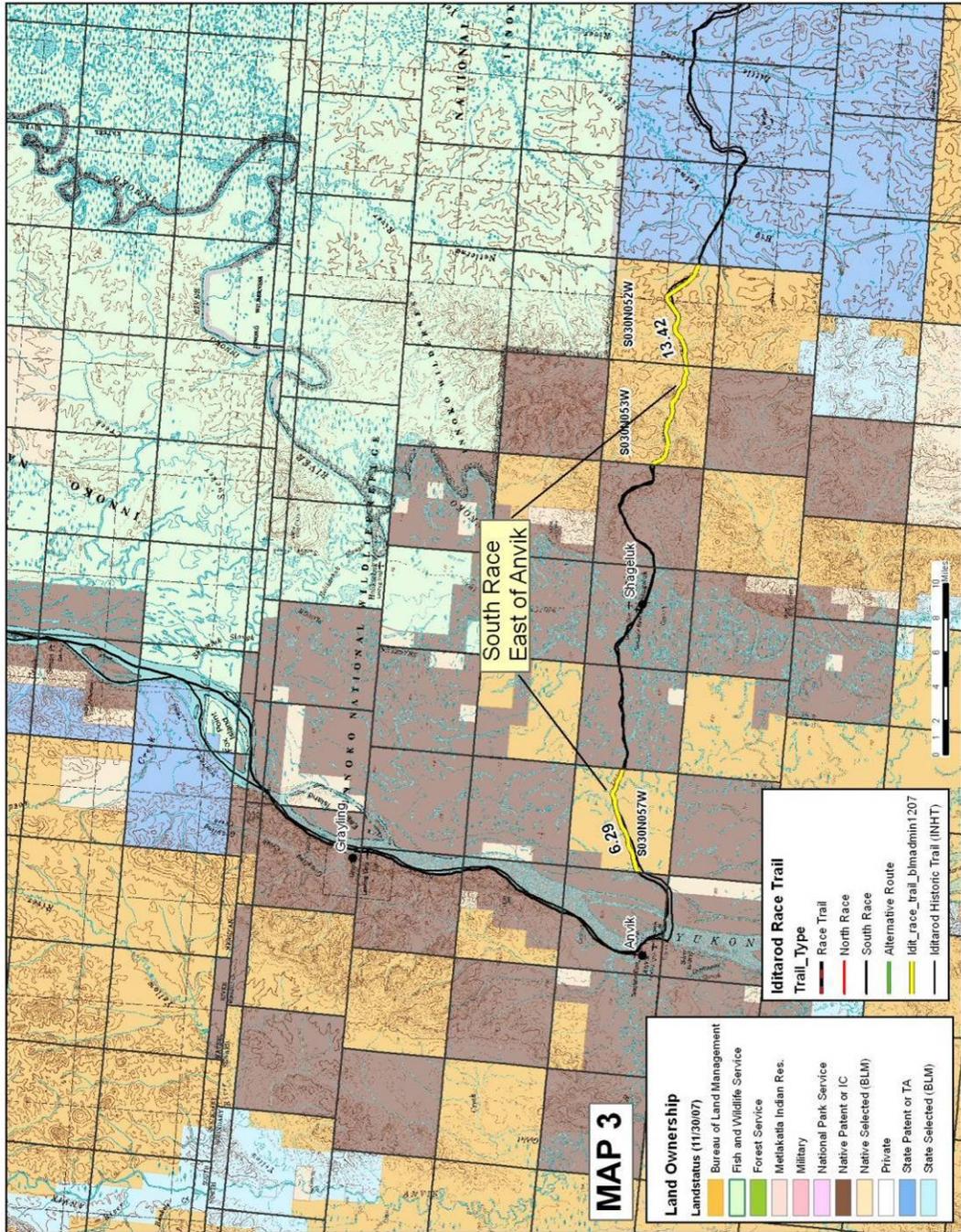
Map 4 Appendix A



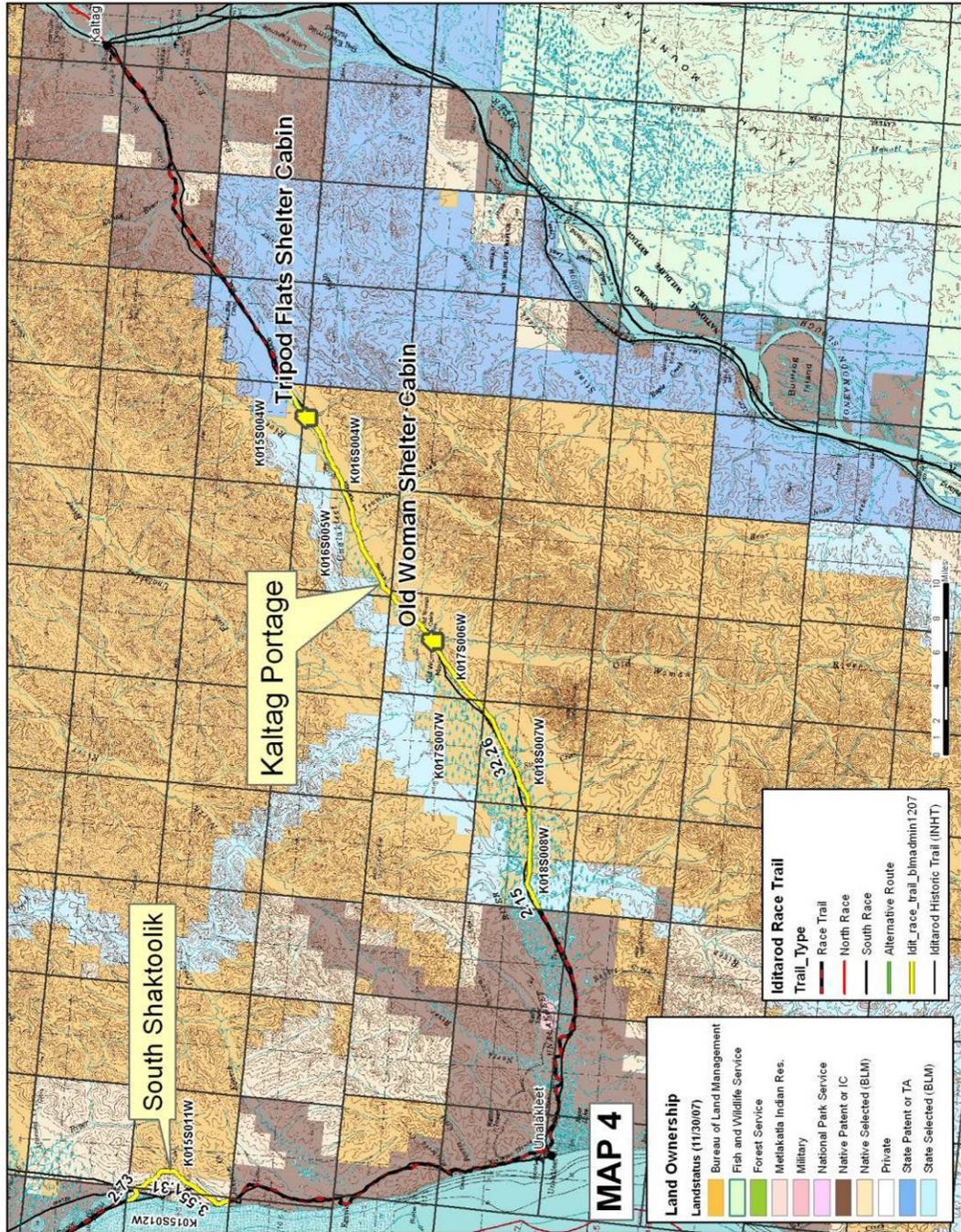
Map 5 Appendix A



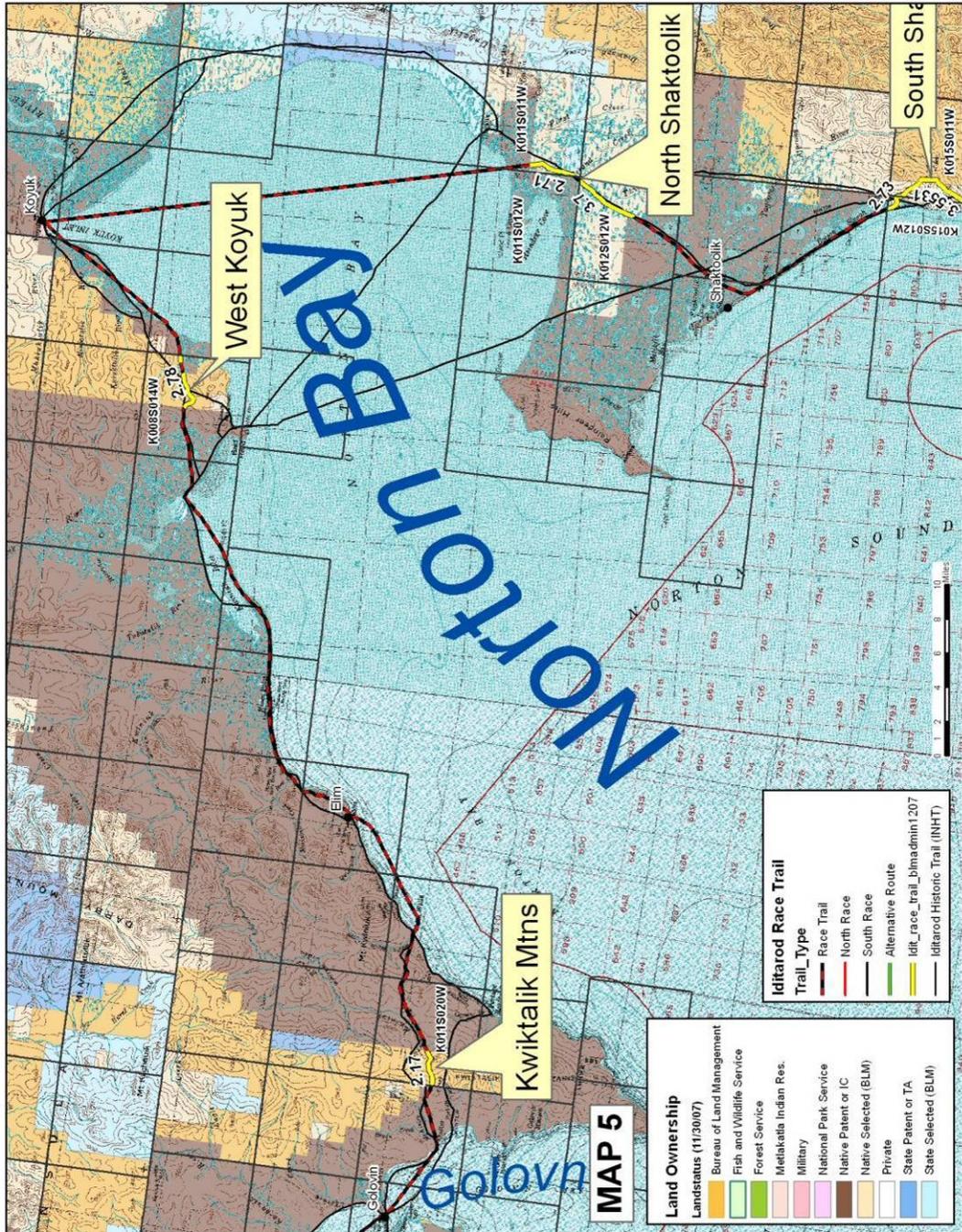
Map 6 Appendix A

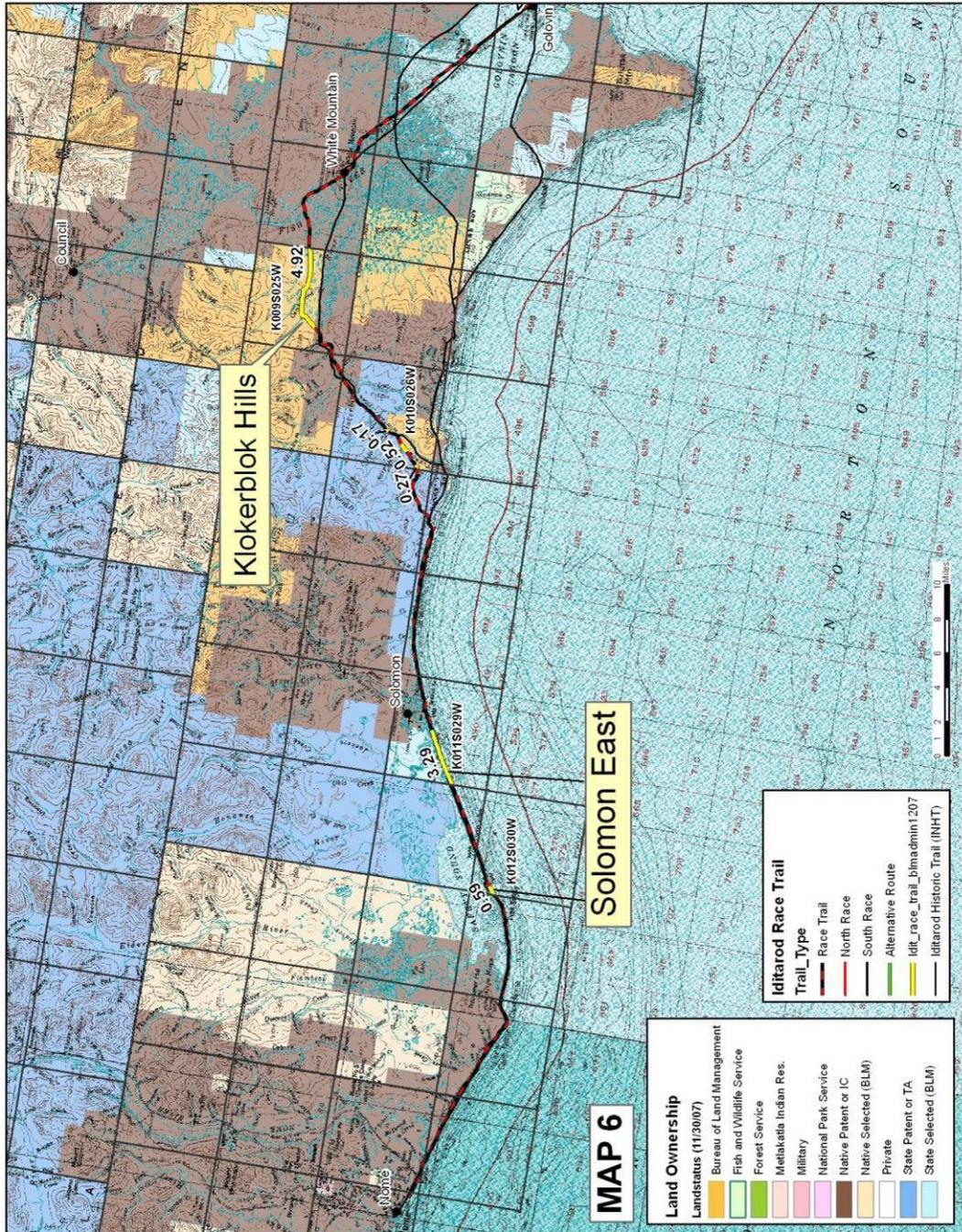


Map 7 Appendix A

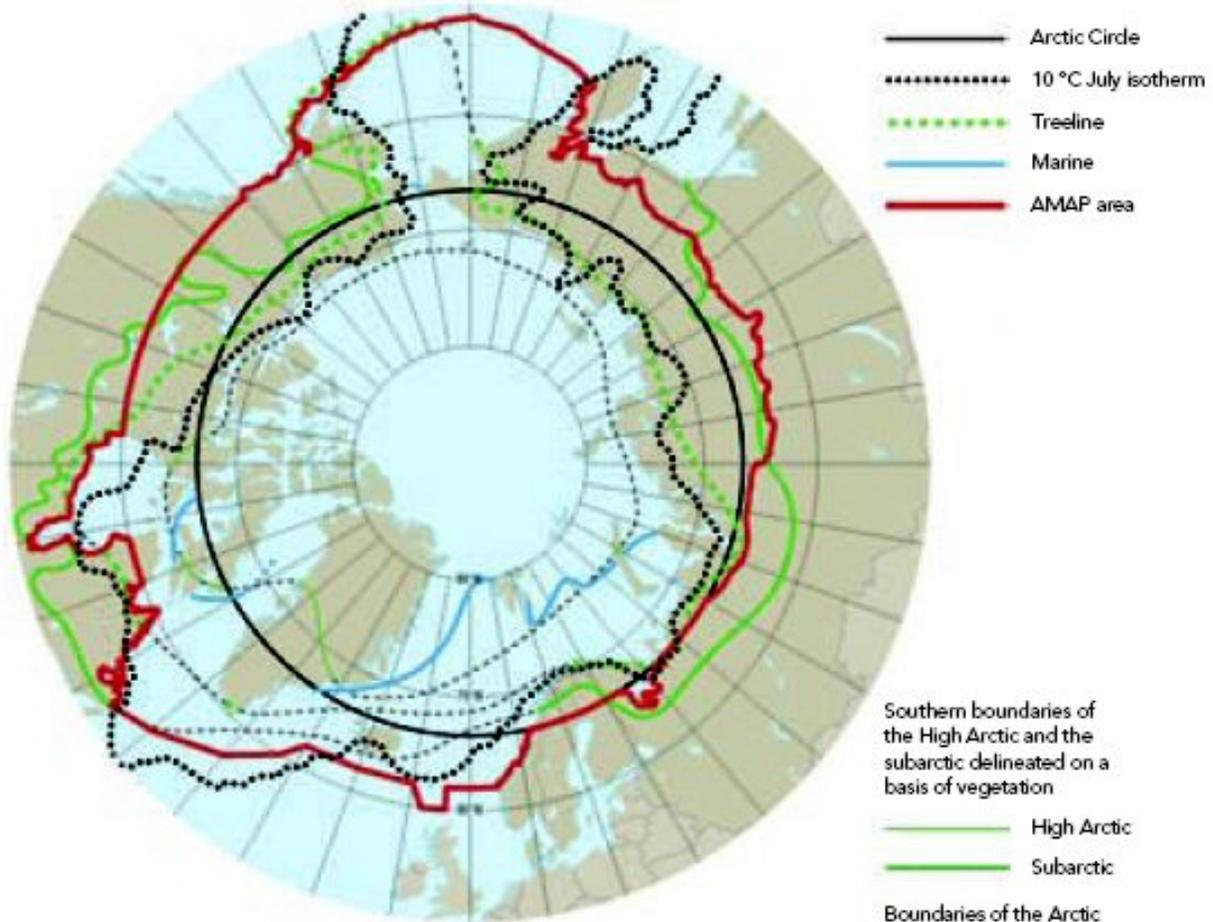


Map 8 Appendix A





Map 10 Appendix A



The Arctic's most pronounced feature is a large, mostly ice-covered ocean, which is surrounded by land governed by eight nations with independent national legislation and regulations. Different definitions of the Arctic are used depending on the context. One reference is the line where the average air temperature in the warmest month is 10 °C, known as the 10 °C summer isotherm. This boundary also corresponds roughly to the northern tree-line. The marine boundary denotes where the cool, less saline surface waters from the Arctic ocean converge with the warmer, saltier waters from oceans to the south. The Subarctic region is typified by the presence of taiga or forest tundra, with its southern limit generally corresponding to the limit of discontinuous and sporadic permafrost (where permafrost is still found, but is interspersed with scattered thawed areas). The High Arctic presents the most extreme conditions for life. Nevertheless, 8 species of terrestrial mammals and 360 types of vascular plants have their home here. The overall definition that is used by the Arctic monitoring and assessment programme (AMAP), as agreed by Canada, Denmark/Greenland, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States, is shown in the map. See also Crane and Galasso (1999).

Map 11 Appendix A

## The Boreal Forest



Map 12 Appendix A

# Tesoro Iron Dog Trail

Wasilla > Nome > Fairbanks

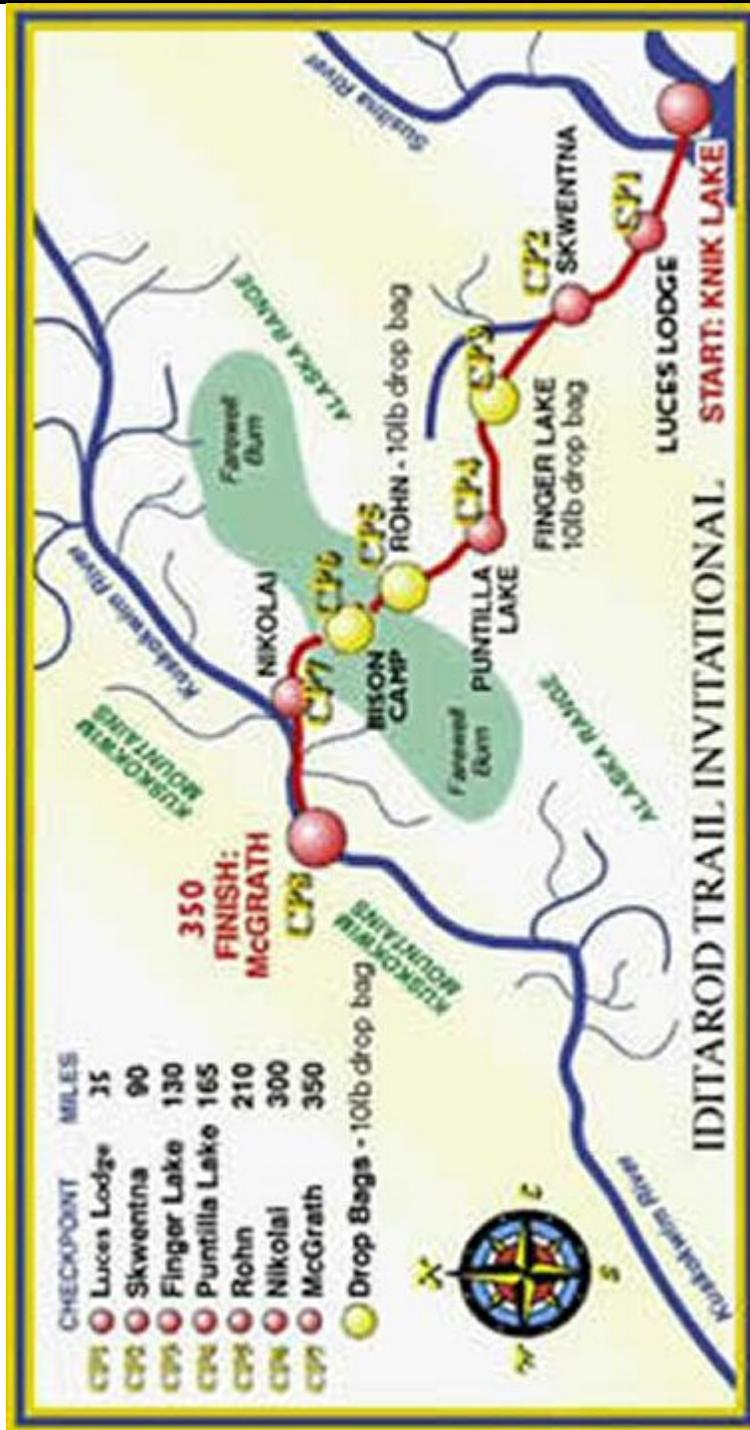
1,971 miles



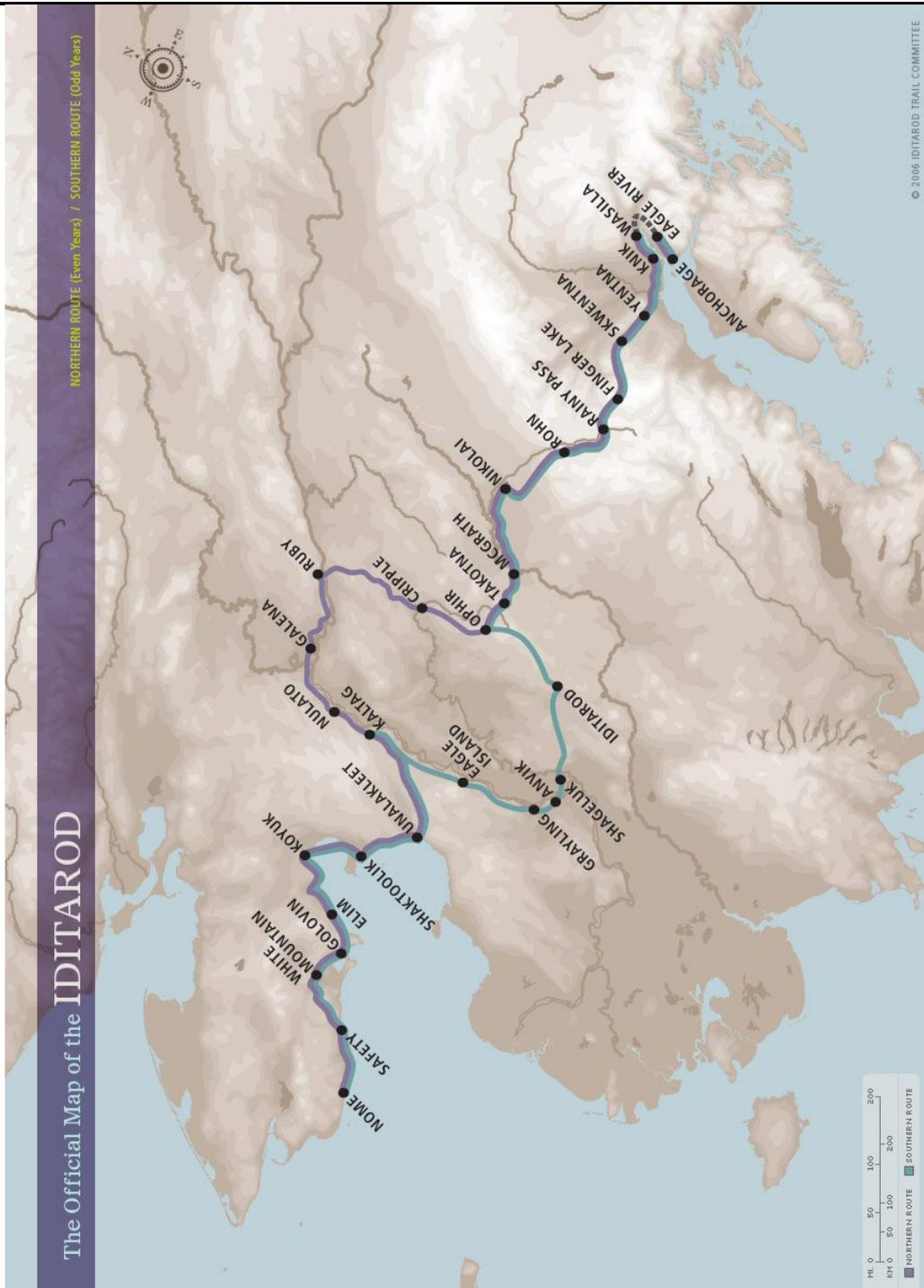
TESORO IRON DOG



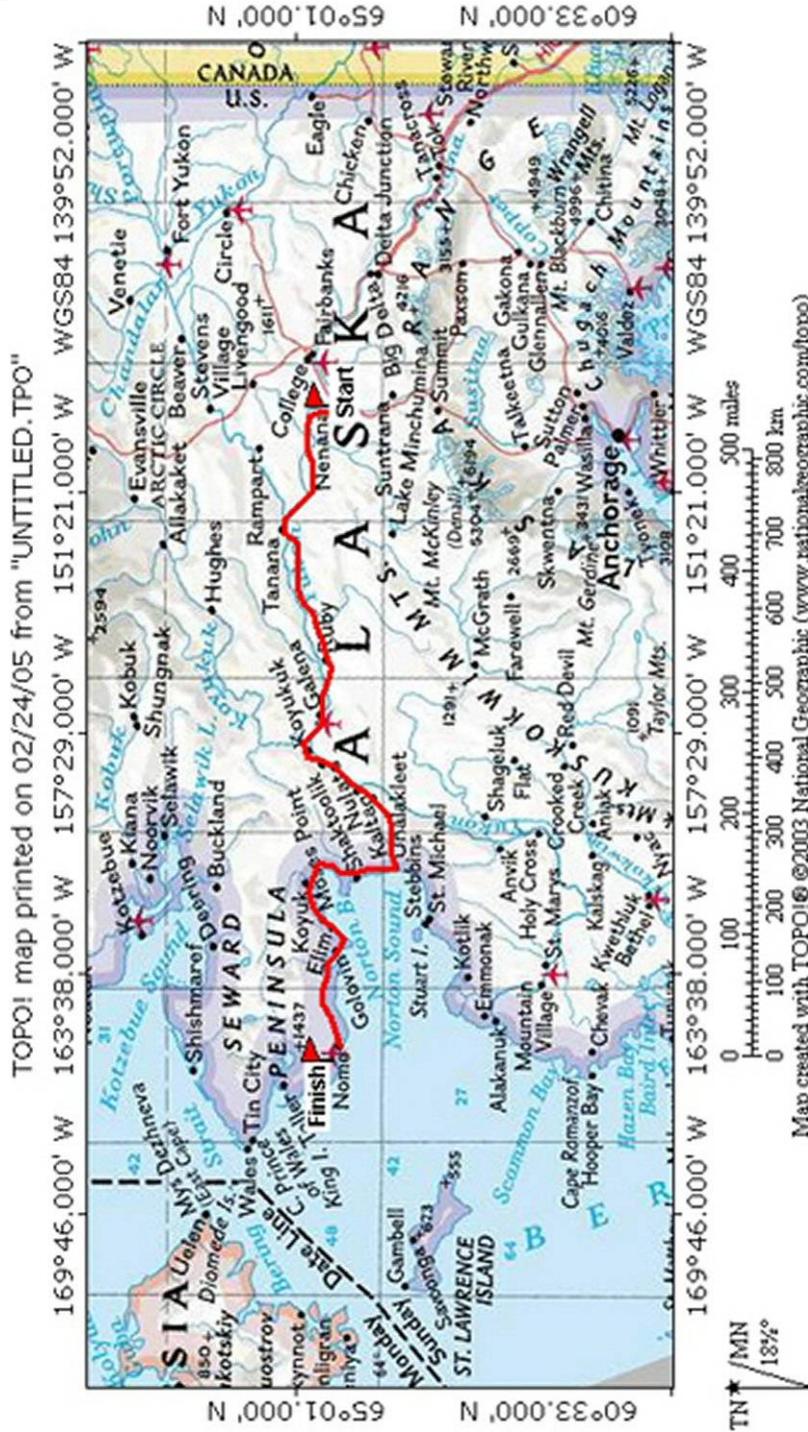
Map 13 Appendix A



Map 14 Appendix A, Alaska Ultra Sport Routing.



Map 15 Appendix A, Iditarod Trail Sled Dog Race Routing.



Map 16 Appendix A, Norman Vaughan Serum Run

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## **Appendix B –Event Rules**

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## **Appendix C –Media Guides**