ENVIRONMENTAL ASSESSMENT
FOR
RECREATIONAL USE OF THE IDITAROD NATIONAL HISTORIC TRAIL

AK-040-02-EA-004

Applicant: Commercial and Special Recreation Users on the Iditarod Trail

Type of Action: Authorization for recreational activities including Special Recreation Permits and other land use authorizations.

Location: Bureau of Land Management administered public lands along the route of the Iditarod National Historic Trail from Anchorage to Nome, Alaska.

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I. INTRODUCTION

Commercial, competitive and special recreation uses have taken place along the Iditarod Trail for many years. The Iditarod Trail Sled Dog Race (Iditarod) has been run annually since 1973, five years prior to the designation of the Iditarod as a National Historic Trail.

Competitive events along the trail have included three types of competition: sled dog races, snowmobile races, and human endurance events. The only sled dog race currently occurring is the Iditarod. The Tesoro Irondog Snowmobile Race (Irondog) is currently the only snowmobile race. The Alaska Ultrasport and the Iditasport are human endurance competitions. These events are supported by a group of volunteers who mark the trail prior to the race by snowmobile, staff checkpoints along the race route, transport and stockpile food and supplies, and sweep the trail after the completion of the event.

As many as 90 dog teams have entered the Iditarod in past years. The Iditarod sled dog race has 25 to 30 checkers, veterinarians, race officials and support personnel during a three week period from the first Saturday in March to the first part of April.

The Irondog utilizes much of the same race route as the Iditarod and works in conjunction with that organization to establish the trail, mark it, and sweep it. The only exception is when the Iditarod uses the "southern route" from McGrath to the Yukon river. The Irondog only uses the "northern route". The Irondog has up to 50 two person teams. As many as ten support personnel work in similar capacities as those of the sled dog race. The Irondog usually takes place one to two weeks prior to the Iditarod and finishes in five to seven days.

The Alaska Ultrasport and Iditasport have a comparatively small volunteer work force as they only support a maximum of 50 athletes for each event. Event competitors use skis, running or bicycles to race a portion of the race route of the Iditarod Trail, specifically, Knik lake to McGrath, Alaska. Alaska Ultrasport currently has two race options, the Iditarod Trail Invitational 350 (350 miles to McGrath), and the Iditarod Trail Invitational 1100 (1100 miles). The Iditasport also has two race options: the Iditasport Extreme (350 mile race to McGrath) and the Iditasport Impossible (1100 miles to Nome). As many as five race officials using snowmobile support can be expected for each of these events. The endurance races take place in the last two weeks of February, prior to the Iditarod sled dog race.

Other commercial activities on the Iditarod National Historic Trail (INHT) currently consist of one commercial big game guide/outfitter, one adventure travel company and a commercial filming company. Over the years, public interest has grown for these competitive events. With that interest, commercial film making and photography has increased as well. Big game guiding occurs primarily in August and September. Filming is usually associated with the races and occurs in February and March.

Other activities that have occurred in the past include; military training and maneuvers, boy scout trips to Nome by snowmobile, and vehicle endurance tests. Some of these activities are permitted under a land use permit (43 Code of Federal Regulations (CFR) 2920), while others only receive a written authorization or do not require a permit. Military use of snowmobiles for training along the trail is periodic, no military activity has taken place since 1999. In the past, the military has proposed as many as 80 snowmobiles at one time traveling from Anchorage to Nome, complete with helicopter support. Private tours also travel the trail during the Iditarod and during hunting seasons. Many casual users request some form of authorization, although none is needed. Most of these uses occur during or slightly after the Iditarod Sled Dog race in order to take advantage of the packed trail and supply system put in place by the race events.

A. Purpose and Need for the Proposed Action:

In the past, individual environmental assessments (EAs) were prepared for special recreation permit activities taking place along the Iditarod Trail. In order to efficiently address potential cumulative impacts, a comprehensive assessment for all activities was proposed. This assessment will consider impacts associated with recreational and commercial activities taking place along the Iditarod Trail for the next five years.

B. Conformance With Land Use Plan:

The Proposed Action is within the boundary of the Southcentral Alaska Management Framework Plan (MFP), dated March 1980, and the Northwest MFP, dated June 1982. The Proposed Action has been reviewed for conformance with these plans.

C. Relationship to Statutes, Regulations, Policies, Plans or Other Environmental Analyses:

The INHT was established pursuant to Public Law (P.L.) 95-625 of November 1978, The National Parks and Recreation Act. The Iditarod National Historic Trail Comprehensive Management Plan was completed in March 1986.

P.L. 94-579 of October 1976, the Federal Land Policy and Management Act (FLPMA), authorizes the BLM to manage federal lands for a variety of purposes. Title 43 CFR 8372 sets forth the procedures for issuance of special recreation permits. BLM issues filming permits under P.L. 106-206 of May 26, 2000, and Section 302(b) of FLPMA. Film permitting regulations are in Title 43 CFR Part 2920.

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action:

The Proposed Action is to conduct commercial, competitive, and special recreational use activities along the INHT. These activities are defined as those requiring a special recreation permit, land use authorization permit or other authorization from BLM to conduct the activity.

The types of activities and amount of use which will occur under the Proposed Action are described below:

1. Competitive events which include sled dog racing, snowmobile racing, and human endurance competitions.
   The Proposed Action is for the use of the trail by up to 90 sled dog teams, 100 (50 teams) snowmobile competitors, 100 human endurance competitors, and assorted support personnel. Support use will include the use of all terrain vehicles (ATVs), snowmobiles, sled dog teams and aircraft. Total user days for competitive events will not exceed 2,500 each year. This represents an increase of 50 human endurance competitors and 1,000 total user days beyond the existing permitted numbers.

2. Commercial activities including big game guiding and outfitting, and adventure travel.
   The Proposed Action is for commercial use of the trail by guides, clients, and their support personnel. This use will include the use of ATVs, snowmobiles, sled dog teams and aircraft. Total user days for commercial guiding activities will not exceed 1,100 each year. This represents an increase of 350 user days above the existing permitted numbers.

3. Commercial filming and photography activities associated with the competitive events along the INHT.
   The Proposed Action is for commercial film making and photography to take place on public lands along the trail. This will include the use of ATVs, snowmobiles, sled dog teams, and aircraft. Total user days including guides, clients, and support personnel for commercial filming and photography activities will not exceed 250 each year.

4. Special recreation activities.
   Special recreation activities will include uses for which a special recreation permit is not required. Such uses might include; military training exercises and organized non-profit events (scout groups, etc.). Vehicle use may include snowmobiles, ATVs, helicopters, fixed-wing

aircraft, and sled dog teams. Total user days in this category will not exceed 250 each year.

Total user days for all permitted activities under the Proposed Action will not exceed 4,100 per year. Most activities, with the exception of big game guiding, will occur during the period December through April.

User days are defined in this document as: "Any calendar day, or portion thereof, for each individual that uses the public lands or related waters."

B. Alternative A: No Action:
Under the No Action Alternative, there would be no commercial or competitive use of the INHT. Casual use would occur without restriction.

C. Alternative B: Increased Use:
Under Alternative B, recreational use of the INHT will increase as compared to existing use over the next five years to the following levels:

1. Competitive events will increase to 180 sled dog teams, 180 (90 teams) snowmobiles, 200 human endurance competitors, and a commensurate increase in support vehicles and personnel. Total user days will not exceed 5,000 per year.

2. Commercial activities will increase to 1,500 user days per year.

3. Commercial filming and photography activities will increase, as it is directly linked to the number of competitive events along the INHT. The use will increase to 500 user days per year.

4. Special recreation activities will increase to 500 user days per year.

Total user days for activities under this alternative will not exceed 7,500 per year.

D. Alternative C: Existing Condition:
Under Alternative C, recreational use will continue at existing levels. These uses include:

1. Competitive events involving up to 90 sled dog teams, 100 (50 teams) snowmobiles, as many as 50 human endurance racers and support personnel will occur, totaling 1,500 user days per year.

2. Commercial activities involving one big game guide and outfitter, one travel adventure organization, and one guided film crew operation will occur. Current total commercial use (including support personnel and participants) is estimated to be 750 user days per year.

3. Commercial filming and photography activities will occur with an estimated 250 user days per year.

4. Special recreation activities will occur with an estimated 250 user days per year.

Total user days for activities under Alternative C will not exceed 2,750 per year.

III. AFFECTED ENVIRONMENT

A visual depiction of the affected area is presented in Map 1. The trail locations generally follow the historic Iditarod Trail from the town of Knik north and west to the City of Nome, a distance of approximately 1,000 miles. A Northern and Southern route is utilized in alternate years for the Iditarod Sled Dog Race. The Northern Route runs from the village of Ophir north to Ruby, then along the Yukon River downstream to the village of Kaltag. The Southern Route runs southwest from Ophir to the townsite of Iditarod, west through the villages of Shageluk and Anvik, then north along the Yukon River to the village of Kaltag.

A. Critical Elements:

The following critical elements are not present or are not affected by the Proposed Action or Alternatives: Areas of Critical Environmental Concern (ACECs), Environmental Justice, Farm Lands (prime or unique), Floodplains, Invasive, Non-Native Species, Native American Religious Concerns, Water Quality (Surface/Ground), and Wilderness.

1. Air Quality:

Air quality is good throughout the area traversed by the Iditarod trail. There are no non-attainment areas.

2. Cultural Resources:

There are almost 500 known historic/archaeological sites located along or associated with the INHT. Since the trail has never been totally inventoried on the ground, this is just an estimate. The bulk of these known sites are historic. It is likely that most of the historic era sites have been recorded since diaries, newspaper accounts, official records, maps, aerial reconnaissance and limited on-the-ground survey have been used as documentation. However, 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 semisubterranean 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 inspection can locate them. Temporary hunting and travel camps normally can only be located with on-the-ground survey methods. Known Iditarod Trail sites range in age from several thousand years to the first several decades of the 20th century.

a. Prehistoric Sites:
The historic trail follows many segments used by Native Alaskans before Europeans arrived in Alaska. This network of segments extends from Resurrection Bay on the Kenai Peninsula, into a forested interior dissected by large rivers, to the coastal tundra of Norton Sound.

(1) The Late Prehistoric:
The southern end of the trail around the Resurrection Bay and Kenai Fjords area was occupied by the Unixkugmiut Eskimo. This area is characterized by steep forested slopes rising from the sea, glaciers and alpine valleys. Important subsistence resources come from both land and marine sources. Most known sites from this area tend to be found along the coastal margin where both land and marine resources can be exploited. Isolated short-term camp sites used during hunting or traveling may be found further inland.

The Tanaina Athabaskans inhabited the western Kenai Peninsula around Cook Inlet to Iliamna Lake and inland to the Alaska Range. Subsistence also centered around both marine and land resources. The Tanaina are the only Athabaskan group to hunt sea mammals. At contact, they were more sedentary than any other Athabaskan group other than the Ingalik and Koyukon.

The Kuskowagamiut are riverine Eskimo; their territory extends along the Kuskokwim River and touches the Iditarod Trail along the central Kuskokwim. Village sites are found along the main river with smaller more temporary camps near streams and lakes. The

Kuskowagamiut depend primarily upon salmon with supplementary foods from large and small land mammals.

The Ingalik, Kolchan, and Koyukon Athabaskans are found in the interior. The Ingalik tended to concentrate along large rivers such as the Yukon and central Kuskokwim, while the Koyukon tended to be found along both the Yukon and smaller rivers in their territory. The Kolchan are found along the upper reaches of the Kuskokwim and its smaller tributaries. This area supports spruce forest at lower elevations and tundra at higher elevations. Like the Kuskowagamiut, salmon were of primary importance to the Ingalik, and while important to the Koyukon and Kolchan, caribou and moose were just as significant.

The Unaligmiut and Kauwerak are coastal Eskimo living along the shore of Norton Sound. Subsistence is focused upon marine and land mammals, and fish. Large villages are found along the coast and some of the larger rivers. Temporary hunting and travel camps are dispersed across the interior.

As can be seen, the late prehistoric peoples living along the Iditarod Trail consisted of groups concentrating their subsistence 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 concentrate along the coast or major rivers.

(2) The Oldest Sites:

Very few sites older than 100-200 years are known along the trail. There is not enough information available to know whether there aren't any more or if they just have not yet been discovered. Of the few older sites that are known and located near the trail, there is not enough information beyond 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 to the historic period.

b. Historic Sites:
At the beginning of the historic period, segments of existing Native trails linked Native villages along what we now think of as the Iditarod Trail. Russian fur traders utilized some of the segments and the existing Native villages for their fur trading enterprise.

The majority of historic sites along the trail come from the gold rush period during the last few years of the nineteenth century and first 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. During the height of its historic use, the main trail was dotted with roadhouses approximately every twenty miles, or a good days walk. Many of these roadhouses still exist despite the ravages of man and nature.

One of the youngest historic sites along the Iditarod Trail is the Rohn Civilian Conservation Corps (CCC) cabin. It was built in 1938 by the CCC as a shelter cabin associated with the Rohn airstrip. The cabin is eligible to the National Register of Historic Places due to its history as a shelter cabin. It has become associated with the Iditarod Trail in recent decades because it serves as a checkpoint for the Iditarod race. This cabin, although not associated with the historic trail, gets a lot of use by trail users because of its location near the trail and because of its associated airstrip.

3. Subsistence:
The trail is a main transportation and access corridor for subsistence hunters and trappers. Subsistence seasons for large mammals will be

closed during the time period of the currently occurring events with the exception of February moose seasons in the Shageluk/Yukon River segment in Game Management Unit (GMU) 21E and the year long caribou season in GMUs 22A, 22B, 21D along the Unalakleet River and between Unalakleet and Nome. The period that the current events occur is a high use period of the trail in the Unalakleet River drainage. General hunting for bison season is also open in the Farewell/Bear Creek segment during the current events. The levels of hunter use are generally low to moderate during this period for bison as there are limited permits available. Shageluk area moose hunting is moderate, but general traffic between villages is frequent. Trapping seasons are generally open through the activity period.

4. Threatened and/or Endangered (T&E) Species:
There are no known T&E species that occur along the trail or use the trail area for critical habitat during the period of proposed commercial, competitive, or special use. Canada lynx, Northern Goshawk, Harlequin duck are species of special concern, but only the lynx would be expected to occur consistently along the subject trail portions during the proposed activity period.

5. Wetlands/Riparian:
Wetlands include a variety of types from wet tundra, tidal flats and emergent wetlands, to lakes, and riverine riparian/oxbow/overflow channel areas. No wetlands classification has been done for the length of the trail. Waterfowl production is high in the Innoko bottom lands and is an important factor to all wetland areas crossed. However, waterfowl are not present during the proposed event period.

Vegetation is largely protected in most years by a mantle of packed snow along the trail; frozen soil and root mass; and limited weight, size, and type of vehicles and the kinds of impacts they produce. There are segments of the trail that do not have a protective mantle of snow consistently from year to year. There are unusual years where other segments may not have protective snow mantle or "ice road" type surface to prevent direct mechanical damage to vegetation. The trail has experienced damaged wetlands vegetation over its life under vulnerable conditions. The trail route is easily observed from aircraft simply by the damaged groove in some of the wetland types, especially on wet tundra underlain by permafrost.

The trail crosses the riparian zones of numerous riverine areas and several major rivers throughout its course. Trail segments within the Farewell Burn from the Farewell airstrip to federal lands outside of McGrath are open sedge wetlands with patches of white spruce/mixed forest and black spruce bogs. Much of this area is riparian in nature, as it is wet and supports a moss sedge cover, yet does not have a consistent amount of standing water. This area is often prone to mechanical damage of vegetation depending on snow depth and type and volume of use. The Farewell/Bear Creek area is often windswept in winter with shallow snow cover. The fact that the trail corridor is visible all year from the air suggests historic trail use has affected wetland vegetation.

The trail segment along the Innoko bottoms from Shageluk to Anvik consists of open grass meadows with numerous interconnecting sloughs, oxbow lakes and shallow wetlands that are hydrologically connected to the major rivers. The entire area is a floodplain, and is inundated in most years at breakup. 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. The trail's impact in this area is minimized by frozen ground and normally adequate snow cover, and the fact that the area is kept in a dynamic state by flooding and silt deposition. 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 trail crosses the Unalakleet River and tributary streams. Stream dynamics and changes in the meanders historically are commonplace in this river system. It is unknown whether the trail location and use has influenced or accelerated channel changes in the areas it crosses. Short portions of the trail are difficult to recognize in the Unalakleet riparian bottom during the growing season. The portions of the trail crossing the wet tundra in the Unalakleet drainage are similar in character to those of the Farewell/Bear Creek area, but the areas crossed are strictly low growth tundra vegetation.

6. Wild and Scenic Rivers:
The Iditarod Trail traverses portions of the Unalakleet National Wild River corridor. Although approximately 35 miles of the trail is within the designated corridor, no part of the trail crosses or touches the stream bank of the river within the corridor. BLM prepared a management plan for the Unalakleet Wild River in 1983.

Winter use of the trail currently includes the events described under the existing condition alternative, as well as a substantial, but unknown amount of casual use by local residents. No limitation on types or amounts of winter use has been established in the river management plan.

B. Lands:

BLM administers only a portion of the lands which follow the trail. This includes those lands selected by the State of Alaska and Native Corporations, but not yet conveyed. Other land managers include the U.S. Fish and Wildlife Service, State of Alaska, and Native Corporations. The U.S. military retains control over less than one mile of the trail. In addition, there is private landownership along the trail, including Native Allotments.

	South Route (1,002 miles)	North Route (999 miles)
BLM	76 miles	57 miles
State Selected	46 miles	48 miles
Native Corporation Selected	41 miles	41 miles
Total	163 miles (16.3 %)	146 miles (14.6 %)

BLM has reserved easements under Section 17(b) of the Alaska Native Claims Settlement Act. These public easements are reserved over those lands patented to Village and Regional Corporations, and are for right of access only. All easements are subject to applicable Federal, State, or Municipal government regulations. Any uses which are not specifically listed are not authorized by the BLM. Currently, along the INHT, BLM has reserved two types of easements.

25 Foot Trail - The uses allowed on a twenty-five (25) foot wide trail easement are: travel by foot, dog sleds, animals, snowmobiles, two and three-wheel vehicles, and small ATVs [less than 3,000 lbs. Gross Vehicle Weight (GVW)].

50 Foot Trail - The uses allowed on a fifty (50) foot wide trail easement are: travel by foot, dog sleds, animals, snowmobiles, two and three-wheel vehicles, small and large ATVs, track vehicles and four-wheel drive vehicles.

Easement maps are available for inspection at the Anchorage Field Office.

C. Land Use Authorizations:
Land Use Authorizations are required for commercial filming and photography on BLM administered lands. This EA covers the authorization of Minimum Impact Permits under 43 CFR 2920.2-2.

The following is an explanation of when a permit would be issued:

1. Commercial Still Photography:
   - Photographers who take pictures of BLM public land users with the expressed purpose of selling the pictures for commercial purposes.
   - The photography takes place on BLM public lands or uses the public lands as a background and involves commercial products for sale.
   - The activities associated with photography would cause surface disturbance or adversely impact the BLM public lands.

2. Motion Picture/Video and TV Locations:
   - The filming is for the making of documentaries, television programs, and feature films.
   - The filming of advertisements or similar projects result in a commercial product.
   - The activities associated with the filming would cause surface disturbance or adversely impact the BLM public lands.

D. Recreation:
1. Trail History and Route Description:
A 938-mile segment of the trail was constructed by the Alaska Road Commission during 1910-11. This constitutes the INHT "Primary Route". Branching from this primary route are hundreds of miles of land and water based routes and trails with some based on earlier Native trails. They were important not only during the 1910's, but also during the entire Gold Rush period in interior Alaska from the 1880's into the 1920's. Collectively, these trail segments and associated historic sites make up the INHT system. Currently 2,350 miles of trail are recognized as part of the historic trail.

The race route generally follows trail segments identified in the INHT system. There are two routes recognized as components of this system and as race routes. They are the Northern and Southern routes. Each odd

numbered year the race route follows the Southern route which heads southwest from McGrath to the towns of Iditarod, Anvik, and north up the Yukon River to Kaltag. The Northern route leads northwest from McGrath through the towns of Takotna, Ophir, Poorman, and Ruby. From Ruby the route follows the Yukon River down stream to Galena and on to Kaltag where the Northern and Southern routes meet.

The race route, as well as many connecting trails associated with the INHT, are used frequently by bush residents as a travel route between villages. This local traffic is vital to establishing and maintaining proper location and marking of the trail.

2. Special Recreation Permits:

Special Recreation Permits (SRPs) are required for commercial recreation use of the public lands and related waters (43 CFR 8372.1-1) except in cases when BLM determines permits are unnecessary. Such cases may be when an event begins and ends on non-public lands or related waters, traverses less than one mile of public lands and poses no threat of significant damage to the public land or water resource values.

EAs and subsequent SRPs have been prepared since 1974 for various activities along the INHT. Recently, activities along the INHT have drawn the interest of other activities such as winter marathon skiing, biking, filming, and guided treks. The following is a description of events which have taken place, or are proposed on the Iditarod trail.

a. Competitive Events:

(1) Iditarod Sled Dog Race (Iditarod):

The Iditarod Sled Dog Race from Anchorage to Nome was first run in 1973 and has been an annual event since. Once used by ancient Native hunters, then by Russian explorers and early 20th century gold seekers, the Iditarod Trail is actually a network of more than 2,300 miles of trails. The trail takes its name from the Athabaskan Indian village near the site of a 1908 gold discovery. By 1910 a gold rush town flourished and for a time was the center of the Iditarod Mining District. The route received public notice in 1925 when diphtheria serum was rushed by dog sled utilizing a portion of the Iditarod trail from Nenana to Nome to quell an epidemic. The serum was carried a distance of 674 miles in 127.5 hours.

The Iditarod dog sled race is the only trail event that begins in Anchorage. The race follows various city and outskirt trails to the town of Eagle River. From here the dogs are trucked to Wasilla for a restart the following day. The restart allows the teams direct access to the INHT and thus to Nome.

As many as 90 mushers, 2,000 dogs and numerous support people, mostly volunteers, are involved in this race. This event receives considerable media coverage and sponsorship.

(2) Tesoro Irondog Snowmobile Race (Irondog):
The Tesoro Irondog Snowmobile Race is a long distance snowmobile race between Wasilla and Nome, Alaska. The race always takes the Northern route of the Iditarod Trail due to better availability of gas and supplies.

For the first few years the race route was from Big Lake, near Wasilla, to Nome. Race organizers decided to reverse the route in 1991 to receive better media coverage at the finish line at Big Lake. Beginning in 1993, the "racer" class of the Irondog ran from Big Lake to Nome and return. Currently, the race runs from Big Lake to Nome and on to Fairbanks. Approximate total distance is 2,274 miles. Trophy and recreational class riders ride from Nome to Fairbanks only.

The Irondog and the Iditarod utilize each others volunteer staff for race officials, check-point operators, and fuel delivery.

The Irondog is usually run and completed before the Iditarod begins. The starting date is usually around mid-February. Besides the safety aspect of separating machines and dogs, this early start has hidden advantages to other trail users, such as, trail breaking and compaction, fuel delivery to remote sites, and trail condition reports.

The 1995 permit for this event established a baseline maximum of 70 snowmobiles. In 1997, that number was

increased to 100 (50 teams) and has remained as the maximum allowable number of snowmobile racers.

(3) Alaska Ultrasport (Iditarod Trail Invitational):
The Iditarod Trail Invitational (ITI) is a 350 mile human endurance race created by Bill Merchant and Pat Irwin. This race is fashioned after the Iditasport event which has run on the Iditarod Trail since 1991. The race follows the INHT from Knik to McGrath.

The race usually begins the 2nd or 3rd weekend in February and has a maximum duration of 30 days. The participants' mode of transportation may include running, biking, or skiing. Mandatory check points will include Yentna Station, Finger Lake, Rainy Pass, Rohn, and Nikolai. There will be other locations along the trail for competitors to rest. These include Shell Lake Lodge and Runkle's Buffalo camp. Competitors are allowed two supply drops located at Finger lake and Rohn cabin. Two Weatherports will be set up at Rohn cabin for cooking and resting.

There will be two trail breakers and two trail sweepers. The maximum number of competitors is 50.

The ITI encourages those willing participants to continue on to Nome, Alaska. They would utilize the northern race route of the trail. Out of 50 participants, they expect less than ten to continue on to Nome. ITI will not provide any assistance beyond the McGrath checkpoint/finish.

(4) Iditasport Extreme and Impossible
The Iditasport has been held on the race route of the Iditarod Trail since 1991. This race consists of two main events. The first and most popular is the Iditasport Extreme. This is a 350 mile human endurance event from Knik to McGrath, Alaska. The second race is a continuation of the same race, but runs from McGrath to Nome. These races have been organized by Dan Bull since inception. These events start the second weekend in February and typically take most athletes 4-10 days to McGrath and another 10-15 days to Nome. Athletes may

choose between bicycle, snowshoe, or ski. They may change mode at any time.

Mandatory check points will include Yentna Station, Finger Lake, Rainy Pass, Rohn, and Nikolai. Competitors are allowed two supply drops located at Finger lake and Rohn cabin. Participants are also guaranteed evacuation via aircraft if necessary and lodging. Competitors wishing to continue on the trail to Nome are not provided any support from the race organizers. There will be two trail breakers and two trail sweepers on snowmobiles from the starting point to McGrath. The maximum number of competitors is 50.

b. Commercial Events:
Commercial activities currently consist of one adventure travel permittee, one guided big game outfitter, and one commercial filming company. It is logical to assume that these activities may grow in the future as operators increase the size and scope of their operations and their services become better known.

(1) The Norman Vaughan Serum 25 Run:
The Norman Vaughan Serum 25 Run is a long distance dog mushing expedition with snowmobile support. This expedition commemorates the original Serum Runners, who were responsible for bringing life saving diphtheria serum to Nome in 1925 by dog team. Norman Vaughan, organizer and trip leader, will travel the same route taken by the original Serum Runners in 1925 from Nenana to Nome, Alaska.

This event is expected to involve 30 participants; 14 dog team drivers and 16 snowmobile drivers. Support personnel will primarily be provided by the snowmobile drivers. These individuals provide logistical support, cooking, guiding, and general maintenance services. Each day after cleaning up camp and helping the dog mushers get underway, they will move ahead of the dog teams and prepare camp for the dogs and mushers. This expedition will travel between 30 and 60 miles per day for 16-18 days. Lodging will be prearranged at the villages, but there will be at least four nights of camping along the trail with no

housing or only small cabins. This event does plan on using BLM's Old Woman Cabin as an overnight stop; involving approximately five individuals with the sled dog teams and three with the snowmobile group.

(2) John Runkle Guided Big Game Outfitters and Adventure Travel:
John Runkle (Alaskan Outdoor Adventures) offers commercial guiding opportunities for big game in GMU 19-08. He utilizes a portion of the Iditarod trail to access his hunting camps. Most field transportation is provided by ATV's or snowmobiles. Most use is for spring guided bison hunts which occur in March. Duration is usually 14 days.

(3) Arctic Winterland Tours (Mark Brown, guided filming opportunities):
Arctic Winterland tours provides guiding for a film crew along the INHT. This operation is composed of approximately five people with five snowmobiles. They will guide film and still photograph crews for both the Iditarod Sled Dog race and the Iditarod Trail Invitational. They are totally self sufficient and can camp anywhere along the trail. If possible they prefer to stay at village schools and private facilities. They may spend a couple of days at BLM's Rohn Cabin. The duration of the tour varies depending on client desires.

c. Non-Permitted Events:
Recreation activities include uses that do not require a SRP. In the recent past, BLM has authorized or provided assistance and information to military training exercises, organized non-profit events such as scout groups, and promotional activities such as filming. In most cases, these activities will take the Northern route due to the slightly shorter distance and more accessible supplies.

3. BLM Shelter Cabins:
Historically, roadhouses and cabins were located approximately a day's journey apart along the Iditarod Trail. Since the demise of many of the mining operations and the advent of the airplane for travel, most of these roadhouses have fallen to the elements. Increased use of the Iditarod Trail in the last 20 years has identified the need to provide shelter for travelers.

The BLM has built three shelter cabins since 1989 and maintains the historic Rohn Cabin.

a. Rohn Cabin:
The Rohn Cabin was built in 1938 near the confluence of the South Fork Kuskokwim and the Tatina River. This cabin was rebuilt in 1998 (floor, roof, sill logs) yet maintained its historical character. This is an aircraft accessible site that receives heavy use during fall hunting season and competitive winter events. It is located in T. 22 W., R. 22 S., Section 32, Seward Meridian (SM).

b. Bear Creek Cabin:
The Bear Creek Cabin was built in 1992 and is situated in the Farewell Burn (T. 30 N., R. 26 W., Section 1, SM). The cabin is between the checkpoints of Rohn and Nikolai. It receives limited use during winter events.

c. Tripod Flats Cabin:
The Tripod Flats Cabin was built in 1989 approximately mid-way between Kaltag and Unalakleet. It is located in T. 16 S., R. 4 W., Section 2, Kateel River Meridian (KRM).

d. Old Woman Cabin:
The Old Woman Cabin was built in 1994, near the confluence of the Old Woman and Unalakleet rivers. It is located in T. 17 S., R. 6 W., Section 15, KRM.

E. Vegetation:
The portions of the Iditarod Trail under BLM management pass through six physiographic provinces of Alaska; the Alaska Range, Kuskokwim Lowlands, Kuskokwim Mountains, Innoko Lowlands, Nulato Hills and Norton Sound. Each is characterized by a unique pattern of topography, climate, vegetation and soils.

1. Alaska Range:
The Alaska Range is a long, narrow mountain chain that arcs around Southcentral Alaska and separates it from the hills and lowlands of the Interior. It is very rugged and has many peaks higher than 10,000 feet, but has several low passes. Most of the high steep slopes are bare. Shrubby alpine vegetation covers most lower slopes and passes. Black spruce forest occupy some low slopes, and natural grasslands occur in a few places.

2. Kuskokwim Lowlands:
The Kuskokwim Lowlands are relatively long, narrow plains, bordering sections of major rivers in Interior Alaska. Most of the lowlands are nearly level, with natural levees, glacial outwash plains, low rolling slopes, and piedmont hills predominating the area.

The vegetation at the lower elevations is mostly mosses, shrubs, and black spruce. At higher levels, outwash fans and plains with loess exist. These areas support forests with white spruce, paper birch, quaking aspen, and cottonwood. A few higher slopes support alpine tundra vegetation.

3. Kuskokwim Mountains:
The northern part of the Kuskokwim Mountains consists of low mountains with rounded ridges of 1,500-2,000 feet in elevation, separated by deep and narrow valleys. Very few pointed peaks and rocky ridges stand above the hills. The southern part has rugged mountains, long narrow lakes, and extensive hilly areas. The dominant vegetation is black spruce and willow, but low sedge and shrub tundra covers many hills and ridge tops. Forests of white spruce and birch occur on low hills bordering the Yukon and Kuskokwim rivers and Bristol Bay. These trees, along with cottonwood, also occur along the flood plains of major rivers.

4. Innoko Lowlands:
The Innoko Lowlands are long, somewhat narrow rolling hills bordering several streams. Glacier outwash plains predominate. These plains consist of piedmont slopes with levees. At the higher elevations, well-drained tundra vegetation is predominant. Some areas support cottonwood, aspen, birch and spruce. Along the low wet areas of the Yukon River, shrubs, mosses and black spruce exist.

5. Nulato Hills:
The Nulato Hills consist of rounded to steep mountains in the east and south of Norton Sound. Some mountainous areas were glaciated, but some of the area has always been free of ice. On the approach to Unalakleet, the valley at the base of the Nulato Hills broadens and lowers. Tundra shrubs and sedges dominate the vegetation of the area. Some forest of white spruce and paper birch occupy the eastern edge and border the Yukon River. Areas above 2,000 feet and limestone areas are sparsely vegetated.

6. Norton Sound:
This area consists primarily of the Bristol Bay coastal plain and the upper edge of Norton Sound leading to Nome. The area is predominantly low, with little relief except on the cliff to the water's edge where there is an abrupt drop. This edge is commonly sandy, with sand dunes dispersed in the southern part of this region. The coastal edge of Norton Sound is covered in tundra vegetation composed of mosses, sedges and low shrubs. In very remote places along major streams, alder, willow, black spruce, and birch are found.

F. Wildlife:
The INHT traverses a wide variety of wildlife habitats which provide a wide range of general, seasonal, and critical habitat for a diversity of species. Wetlands and riparian habitats are prevalent along the trail routes in the Farewell Lake, Bear Creek, Shageluk to the Yukon River, and Unalakleet River segments of the trail. Upland mixed forest, spruce forest and mixed deciduous forest are encountered in most segments with the uplands near Rohn Cabin, the hills east of Shageluk, and the upper Unalakleet/Kaltag having forest types other than the riparian forests encountered along the major rivers. Coastal shorelines and pack ice in the areas from Unalakleet to Nome offer specialized habitat as well.

1. Large Mammals:
The portions of the trail being considered under this action provide crucial winter range for bison, moose, and caribou in the Farewell Lake/Bear Creek segment. Moose and caribou winter range occurs throughout all segments except those on the coast and pack ice near Nome. Moose crucial winter range occurs in the Yukon bottom lands and below the confluence of the Old Woman River on the Unalakleet. Large concentrations of caribou can be present along trail segments at any time given the unpredictable nature of movements of this species and the large herds that have ranges either expanding into or already present along the trail. Brown bear can and have been encountered during events in the past as have polar bears along the segments between Unalakleet and Nome.

2. Furbearers:
Furbearers occur throughout the lands traversed by the trail. The numbers and diversity varies with harvest pressures, prey base fluctuations and movements, and habitat preferences. Pine martin, wolf, wolverine, fox, coyote, mink, and otter, as well as beaver and muskrat, can be encountered nearly anywhere suitable habitat exists along the trail.

3. Non Game/Small Game:
A multitude of non game and small game occurs along all sections of the trail. The trail is only a small factor in distribution and abundance of these widespread species of animals. The migratory birds of concern in Alaska are not present during most of the proposed period of use. Resident birds and mammals are wide spread and undergo wide natural fluctuations in populations unrelated to the trail or its use.

III. ENVIRONMENTAL CONSEQUENCES

A. Impacts Common to All Alternatives:

1. Critical Elements:

a. Air Quality:
Air quality may be impacted primarily by snow machine exhaust and the burning of wood and petroleum products for heating and cooking. Impacts at all use levels from exhaust will be low as use is dispersed over a large area and snow machines will travel at a high speed. There may be some localized areas of impacts on air quality from wood burning due to inversions that prevent smoke from dissipating.

b. Wastes (Hazardous/Solid):
Trash is a problem that in the past has been concentrated primarily at the Rohn Cabin area. Being a check point that is aircraft accessible, it tends to attract spectators, media, and support staff. In 2001, all trash was air lifted to the McGrath city dump.

Trash consisting of plastics, cans, dog booties, and ash from burning are common remnants after large events, especially at the Rohn Cabin. Large commercial/competitive permit holders have stipulations requiring them to haul out all garbage. The last five years have resulted in a cleaner trail, especially around the four BLM cabin sites. Timely cleanup of winter accumulations of trash early in the spring or summer before bears are attracted to sites is difficult logistically and does not occur consistently. Litter is attributable to the entire user population, not just the proposed users being evaluated in this EA.

Rohn is a major refueling stop for most motorized travelers. Fuel is pre-staged at different locations around the airstrip and tagged for a particular party. The empty containers are not always flown out. The establishment of a bonding program for all of the

commercial and competitive events has helped to insure that wastes are cleaned up in a timely manner. The Irondog flies in approximately 1,200 gallons of fuel in 55 gallon drums. In past years, no fuel containment was present. The potential for a fuel spill exists and is proportional to the amount of fuel present.

2. Economics:
General use of the main race route as well as some spur trails have developed with the increased reliability of snowmobiles. The proportion of casual users compared to users under permit is very difficult to track and is unknown, but the economic impact of this user base will likely continue to increase in value. Many bush communities have established goods and services available in the winter, specifically for users of the Iditarod Trail. It is reasonable to assume that the availability of these services will increase or decrease proportionately with the use, both casual and permitted, of the Iditarod Trail system. The higher the amount of use, the greater the economic impact will likely be.

B. Impacts of the Proposed Action:

1. Critical Elements:

a. Cultural:

(1) Impacts on Prehistoric Sites:
Potential impacts on sites along the coast of Norton Sound can be caused by a lack of snow cover coupled with heavy use. Impacts are most likely in those areas where lack of snow cover and/or extremely heavy use has damaged the underlying vegetation and exposed the ground. Disturbance of surface burial sites has occurred in the past.

(2) Impacts on Historic Sites:
Impacts to historic sites along the trail have been better documented because historic documents indicate their location and impacts can be more easily assessed.

The Rohn CCC cabin serves as a checkpoint for the Iditarod and the Irondog race as well as various special recreation permitted activities and casual use. Overall, impacts to the cabin can be seen in the type of stabilization work done on it in 1996. Windows and floor planks were replaced due to heavy use. The cabin is small and some of the permitted use is heavy and over a short time period.

The rest of the historic buildings along the trail do not get regular scrutiny. Much of the negative impacts to these sites have been due to natural causes such as river erosion, snow load, freeze/thaw cycles, wind, fire, etc.

In general, the types of activity suggested in the Proposed Action elicit three types of damage: erosion caused from insufficient snow cover, damage from overuse, and damage caused by vandalism. It is likely these impacts will increase as compared to the existing level of permitted use or the No Action Alternative.

b. Subsistence:

Conflicts with subsistence users along the trail could occur as the timing of events do conflict with open subsistence and sport hunting seasons for caribou and moose on portions of the trail within GMU 19D (bison), 21D and E (caribou and moose), 22A (caribou and moose), and 22B (caribou and moose). To date there have been no known complaints, but no monitoring of such conflicts has been initiated. The heaviest subsistence activity occurring during the window of the proposed events are along the trail in GMU 22A for caribou, and in the Farewell area during winter bison season.

Traffic congestion of high speed snowmobile or dog teams, encountering hunters with sleds weighted down with harvested meat on narrow portions of the trail, could create a potential accident situation. With an increase in users for events, the probability of an incident increases in proportion to the increase in a specific use. For example, competitive events show an increase of 66 percent so opportunity for an incident would likely increase by the same percentage. However, casual and subsistence use along the trail are also increasing annually at an unknown rate that would be additive to the chance of accidents.

No significant decrease in subsistence resources, access to said resources, alteration in subsistence resource abundance or movement, would directly result from the Proposed Action as these impacts have occurred historically and the degree of impact is stable immediately adjacent to the trail.

c. T&E Species:
Canada lynx, classified as a fur animal in Alaska, is the only species of special concern along the trail during the proposed events that could be impacted. Subsistence, commercial, and recreational trapping is a common activity along portions of the trail. The Proposed Action would have no meaningful impact upon lynx populations or their habitats as consumptive use impacts would already be in place. The relatively short duration of individual user passage, adherence to the trail, and adjacent available cover minimize impacts to lynx to only the rare event. High speed racers could catch an individual animal on the packed trail and overtake or collide with the animal before it could exit the trail. The loss of dog food items and bagged fish meals left along the trail could attract lynx to the vicinity and make them vulnerable to human induced mortality.

d. Wetlands/Riparian:
Wetlands occur throughout the length of the trail. Bear Creek, Innoko-Yukon Bottoms, and the wet tundra types along the Unalakleet River are wetland areas that currently show the damage of a century of use by dog teams, and in recent decades, snowmobile use. The current damage appears relatively stable although no in depth inspection or monitoring for change is being done at present.

The potential for larger, wider, heavier vehicles applying for special recreation uses is a situation that might increase damage to wetland vegetation by damaging the insulating vegetative layer. This would result in melting underlying permafrost and forming a wider gully of standing water. Current size, width and weight of vehicles appear not to be causing increased damage except on perhaps a very limited basis. Increases in use could "wear out" the protective cushion of packed snow with overuse and increase the damage to wetlands. Other vegetation damage is minimal under current vehicle types used on the trail. Upland trail portions appear stable and relatively undamaged.

e. Wild and Scenic Rivers:
No impacts to the Unalakleet Wild River are expected under the Proposed Action.

2. Recreation:

a. Competitive Events:
Under the Proposed Action the competitive events (those listed in the Affected Environment) would increase the number of user days from 1,500 to 2,500.

This increase in user days is not expected to create an adverse impact. Increased numbers of competitors having various rates of speed (i.e., skiers vs. snowmobiles) could potentially cause collision. This has not occurred to date, but increased use could increase the possibility of such occurrences.

b. Commercial Events:
Commercial events (guided tours and big-game guiding) would increase primarily in the number of tour operators on the trail. An increase in use can result in greater user conflict, trail damage and opportunities for vandalism to historic structures.

c. Non-Permitted Events:
The Proposed Action would allow for an increase in the number of non-permitted events not to exceed 500 user days each year. The 2001 season experienced approximately 270 non-permitted user days.

d. Cabins:
No additional shelter cabins or checkpoint needs are likely with the amount of use identified. Recent cabin and site improvements will accommodate the number of expected users without any foreseeable impacts to the cabin site. Capacity of the cabins will accommodate the anticipated number of users, but increased maintenance and repair needs can be expected.

The accumulation of plastic de-icer caps, plastics, dog booties, glass, and ash near cabin sites will increase proportionately to increased use. Adequate and timely cleanup of litter is difficult during the snowy conditions of winter with items being buried in the snow and being exposed when the snow melts. Timely cleanup of winter accumulations of trash early in the spring or summer before bears are attracted to sites is difficult logistically and does not occur consistently. An increase in site maintenance will be required.

3. Vegetation:

The vegetation composition along the trail is low in species diversity and in productivity. Plant growth is limited to a short summer growing period. This shortness of growing season and accompanying low temperatures and lack of moisture are serious limitations to recovery of damaged surfaces. When air spaces in snow are compacted by disturbance, the insulation capacity of the normal blanket of snow is reduced, causing decreased soil temperatures and subjecting vegetation to abnormal extremes of temperature. This makes it extremely difficult for vegetation to overwinter. Also, plant growth and regrowth will become retarded because compacted snow melts more slowly than that on unused areas, and frost penetrates more deeply. Rate of snow melt can be a critical factor affecting vegetation because of the short growing season.

Vegetation is also impacted by crushing. Shrubs and small trees seem to be the most vulnerable. Any disturbance of the vegetative 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, potential is good for subsidence and/or thermal erosion. The thaw will continue until a new point of stability is reached. If the cut is on any kind of a slope, the material will flow, leaving a gully. The natural plant cover has difficulty becoming re-established because the subsurface has changed drastically.

Other impacts of surface disturbance by increased traffic includes the reduction of the numbers of bacteria and fungi under compacted soil of a snowmobile trail. This could adversely affect growth and regrowth of vegetation that depends on these organisms for nutrient uptake.

Air pollution from the increased numbers of snowmobiles may retard growth and at the same time make trees more vulnerable to attack by various insects and diseases. The compacted snow in the trail can prevent microtine rodents from crossing beneath or grazing in the snowmobile track. As a result, the areas adjacent to and between tracks can be grazed heavily. When this occurs over ice wedges, the wedges can melt more quickly than they do normally, causing subsidence. The hardened snow in the trail can also affect drainage patterns during breakup and runoff, which could have the long-term effect of changing vegetation composition in adjacent plant communities.

The degree of disturbance a vehicle leaves behind depends upon substrate conditions (particularly moisture), snow cover, snow compaction (trail hardness) and the number of passes. This serious ground destruction can take many years to re-stabilize. There is currently no good baseline data to determine the level of impacts to plant communities already occurring through past competitive, commercial and special recreational uses of the trail. It is likely the higher the use level, the greater the impact, although it is not directly proportional.

Cabin site use of trees for firewood does occur. Insect damaged or killed trees appear to be taken near the Rohn Cabin, but green trees may be cut when dead trees are exhausted as is the case at Old Woman Cabin and others. This impact cannot be directly tied to current events only, but to all casual, special recreational, commercial, and competitive users. If allowed to continue, this action will denude an ever increasing radius around the cabin site and activity areas.

BLM currently requires the use of certified weed free straw for commercial activities. The threat of undesirable weed invasion is real without this stipulation. Volunteer barley can still be found at several sites along the trail from when this requirement was not implemented.

4. Wildlife:

a. Large Mammals:

Impacts of noise from motorized vehicles, notably snowmobiles, is well documented to cause an avoidance behavior of various distances depending upon the hiding/escape cover available. This is more pronounced in hunted populations and can be expected of large mammals in Alaska as they are subject to much greater exposure to snowmobile and off-road vehicle (ORV) hunters. Abandonment of winter ranges may be expected in some cases.

No documentation or quantification of winter use types or impacts of winter traffic has been conducted along the trail. The more heavily used portions of the trail already have the long-term impacts of combined uses in place.

Habitat and population uses are negatively impacted from the commonplace snowmobile use since the 1960's. Sled dog use is least impacting, as noise is limited. Motorized and high speed snowmobiles would continue the ongoing impacts to wildlife

distribution and habitat use near the trail, but are not expected to change from current distribution and habitat use patterns.

The major impacts to large mammals are accidental collision and resultant injury to user as well as wildlife. Caribou, moose, bison (in the Farewell/Bear Creek/Rohn Cabin areas) are known areas of confrontations. High speed snowmobile racers are at much greater risk, especially in deep snow years when large wildlife tend to utilize packed trails for travel. Incidents would be expected to increase proportionately to the increase in use.

Impacts to human safety involves the treatment of garbage and dog food at BLM cabin sites that are inadvertently left when buried in the snow. Dog food consisting of fish in baggies and other food items become strong bear attractants to cabin sites. This creates problem bears that in turn create problems for fish camps, recreational camps, damage cabins, and generally are encouraged to become a nuisance. These bears then become vulnerable to destruction as Defense of Life and Property bears as well as possibly ingesting toxic or plastic that impair or injure internal organ functions. Polar bears, sighted by event participants, may be killed if the sighting becomes known in local communities.

b. Furbearers:
Long-term impacts of human uses along the trail have been in place historically and little increased impact is expected from the Proposed Action to furbearer populations. Potential accidental collisions are an increasing threat under any scenario where increasing casual and subsistence use is being supplemented by greater competitive, commercial and special recreation use. No carrying capacity analysis has been made for different segments of the trail nor have current use levels and changes therein been conducted. Potential disease transition from sled dogs to wild carnivores is always present and can have short-term impacts to wild populations.

5. Cumulative Impacts of the Proposed Action:
The majority of the trail crosses through remote, unsettled portions of Alaska. These areas are experiencing limited growth around villages and some increase in recreation uses. Snow machine and ATV use is increasing particularly near villages and to a lesser degree near guide and hunting camps. This use causes impacts to the resources similar to those

described throughout the document. These impacts can be severe near villages or between villages and are spread over a large area.

The impacts described for the Proposed Action will add to the cumulative resource impacts in the area the trail passes through. As compared to the impacts occurring over a wide area, the Proposed Action will only add slightly to the negative resource impacts. The action will contribute highly, but not as great as the increased use alternative, to the overall cumulative resource impacts to the trail and immediate adjacent areas.

The amount of use coupled with local travel and other casual use during a relatively short time frame will result in increased damage to vegetation, cultural resources, transportation routes, subsistence users and recreational opportunities.

6. Mitigation Measures for the Proposed Action:
These mitigation measures are proposed to minimize the expected short- and long-term impacts noted in the Environmental Consequences Sections.

   a. Fuel flown in for events must be placed in fuel containment dikes and an absorbent pad be available on site. Fuel stored on site must be a minimum of 100 feet from cabins and water supplies.

   b. For all new events, require adequate snow depth on the trail to accommodate the event and casual traffic. A minimum of one foot of snow and frost depth of one foot is adequate for the weight and number of vehicles to be permitted.

   c. Establish a maximum GVW of 1,000 pounds and width of 60 inches for event and support vehicles.

   d. Require all events and permitted users to mark fuel and food containers with an event identifier tag to insure all materials are removed after the event.

   e. Require either Alaska grown straw or (if imported) certified weed free straw to prevent the possibility of undesirable weeds being introduced.

   f. Prohibit trash burning within 100 feet of any cabin or historic structure.

g. Continue the signing program that indicates expectations for users at cabin sites to prevent vandalism and damage.

C. Impacts of Alternative A: No Action

1. Critical Elements:

a. Cultural:

No direct impacts are anticipated under this alternative. Historic buildings would continue to deteriorate as a result of a variety of causes such as snow load, erosion, fire, and vandalism. Subsurface sites would also be susceptible to these factors, but at an unknown rate.

b. Subsistence:

Impacts would be reduced if no competitive, commercial guiding or commercial filming took place. The likelihood of an accident from the collision of a subsistence user and a competitive or commercial user would decrease. The potential for conflict between subsistence users and other events would be low.

c. T&E Species:

There are no known T&E species of plant or animal that would be impacted by the No Action Alternative.

d. Wetlands/Riparian:

Currently damaged wetlands vulnerable to vegetative damage during shallow or no snow years would potentially be restored as casual use decreases when snow conditions are unfavorable. Permitted events, that tend to take place irrespective of conditions, would not occur.

e. Wild and Scenic Rivers:

No impacts to the Unalakleet Wild River are expected.

2. Recreation:

The cessation of existing competitive and commercial activities would result in the loss of substantial revenue to cities, towns, villages and individuals along the trail. If the popular Iditarod and Irondog races were discontinued, it would be unpopular with most Alaskans.

New military training and other non-permit activities would not be allowed. Trail marking and maintenance, which have been largely accomplished through competitive events and commercial use, would

cease. Casual and subsistence use would continue, albeit with less trail maintenance and marking thereby creating the potential for accidents and lost trail users.

3. Vegetation:
Damage to the vegetation along the trail would still occur from casual use. Impacts would occur at a lower rate and some natural revegetation may take place on less traveled sections.

4. Wildlife:
   a. Large Mammals:
   Impacts from the noise of snow machines and human presence would decrease. There would be some movement of wildlife into closer proximity with the trail. The very high speed races of snowmobiles would be eliminated and the potential for high speed collision with large animals reduced. Casual users and other non-permitted uses of the trail and tributary trails would continue and these involve some higher speed snowmobile activity. Casual use is expected to continue to increase over time. No quantification of use type or rate of increased use is available at this time for casual uses. However, increased popularity of the trail and more reliable equipment are making the trail more accessible to more recreational users as well as an ever increasing bush population of subsistence and recreational users.

   b. Furbearers:
   There would be a decrease in the potential for collisions with animals by high speed snow machine use.

5. Cumulative Impacts of Alternative A: No Action:
The loss of revenue to individuals, villages, cities, and towns along the trail would contribute to depressed economic conditions in many locations. For some the commercial stimulus of the activities on the trail are a significant part of their income. Trail maintenance and repair, currently undertaken by event sponsors, would not occur leading to a deteriorating trail condition.

6. Mitigation Measures for Alternative A: No Action:
No mitigation measures are required under Alternative A.

D. Impacts of Alternative B: Increased Use:

1. Critical Elements:

a. Cultural:

Impacts would be similar to those described in the Proposed Action for cultural and prehistoric sites. In addition, undiscovered cultural resources could be damaged by trail use due to participants traveling outside of established corridors (casual trails). Increased use would also necessitate a longer use season, thereby requiring use during periods when snow depth and trail conditions are not optimum for the protection of buried artifacts. Increased use would also lead to the potential for increases in vandalism of historic structures. BLM shelter cabins, such as the Rohn Cabin, may also be damaged by overuse.

b. Subsistence:

Subsistence users would be impacted by having to travel further than is customary and traditional at present to trap and hunt. Subsistence resources would be distributed further from activity centers, and constant traffic from various potential events would discourage use of the trail by subsistence users from a safety standpoint as well as a harvest success standpoint. As subsistence user populations increase, casual use increases, and higher demands are placed on subsistence resources. Similar impacts to subsistence resources and users will occur under other alternatives; however, not as rapidly as under the Increased Use Alternative.

There are potential conflicts with subsistence hunters, dog teams, and snowmobile races on the trail. Subsistence moose hunting is open in GMU 21E in the Shageluk/Yukon River area in March. Travel of hunters on snowmobiles to and from surrounding villages is moderate, but increased use levels would bring increased conflicts with hunters. There is also a yearlong caribou season between the Unalakleet River and Nome (GMU 22A, 22B, 21D). Permitted bison hunting is open in the Bear Creek/Farewell area in February and March. Hunting pressure is currently moderate to light in these areas, but an increase of almost 300 percent of current levels would impact wildlife populations and cause hunter/trail user conflicts.

While most wildlife is widely dispersed and will not be directly affected by trail users, increased use levels will bring more noise

from ATVs, snowmobiles and low flying aircraft, causing many species to be driven away and displaced.

c. T&E Species:
Increased use would increase the likelihood of a collision with a lynx. Increased amounts of dog food and fish meals left or lost along the trail would attract lynx and increase human induced mortality.

d. Wetlands/Riparian:
The most apparent impact of all use levels is the impact on wetland vegetation along the trail. Snow cover plays a major role in protecting vegetation in all of the land cover types the trail crosses, yet wetland vegetation are the most susceptible. Annual snow depth and windblown areas (Farewell Burn) may leave vegetation open to more severe mechanical damage, such as rutting and pooling wetland areas. Other factors such as frozen ground, the limited size, weight, and type of vehicles or dog teams in use will help prevent vegetation damage. However, use levels as high as 7,500 total user days could have cumulative, long-term effects on potential vegetation damage to the trail. Even at current use levels, the trail through wetland areas is clearly visible from the air in all seasons due to the mechanical damage of vegetation.

The combination of a shallow snow winter and numerous additional events would open the opportunity for wetland vegetative damage above what is currently occurring. Increasing damage to wetlands and permafrost relationships could lead to wetlands drainage where the trail becomes a drainage channel and the land has topographic change. Tree cutting for fuel, shelter tents, space, and other reasons would be expected to continue for all users resulting in an ever widening impact area with no opportunity for restoration.

e. Wild and Scenic Rivers:
No impacts to the Unalakleet Wild River are expected.

2. Recreation:
a. Competitive Events:
An increase in use would result in degradation of the trail. Higher use levels will lengthen the time period of use. This will increase the potential for conflict with other users. A longer use period and

higher use increases the possibility that use will occur on barren trails and that the use would increase trail damage. An increase in "snow waves" are another trail problem. These large humps on the trail form as use packs the snow into peaks and valleys and they grow proportionately with increased snowmobile use. They can reach a depth of five feet and last for several miles. This type of trail condition is hard on trail users, machines, and dog teams. It has no known effect on the soil or vegetative mat, except when the trail becomes barren of snow.

Flowing water crossings would become damaged through increased use. Failure of structures (snow bridges) at water crossings would increase proportionately to the amount of use. This can impact safety considerations along the trail. Weather and snow conditions are also a factor in overflow and the longevity of snow bridges. Use at this level could result in damage to equipment and injury to competitors and dogs due to deteriorated trail conditions and potential collisions with other competitors and casual users.

b. Commercial Events:
Most commercial activities take place after the three main competitive events. Trail conditions would be poor as ruts and snow waves likely would degrade the trail to the point where other users would experience difficult travel. The increased amount of use would create traffic conditions which would increase collisions, user conflicts, and potential trail damage.

c. Non-Permitted Events:
With the associated increase in competitive and commercial activities, there would be an increase in publicity on the Iditarod Trail. It is expected that an increase in publicity will result in a greater number of non-permitted use. It would become difficult to enjoy the trail as a wilderness experience. Higher use levels could force events (competitive and commercial) to begin earlier and run later into the year. This would force non-permitted events to either run with these events, which is very unsafe, or run later into spring, which is also dangerous due to melting snow conditions. Trail conditions could degrade to the point where the trail is unusable for both permitted activities and casual users.

d. Cabins:

Cabin use would increase dramatically under this alternative. This would impact availability of the shelter cabins. At current use levels, the four BLM managed cabins become very busy during the larger events with Rohn being the busiest. Some visitors are forced to sleep outside because of limited sleeping space in the cabins. With an increased amount of use it is likely that the demand for more cabins would increase.

In order to meet the need for emergency public shelter for trail users, construction of additional shelter cabins along the trail may be necessary. There would be an increased risk of vandalism and trash at cabin site areas.

The impacts of this Alternative upon recreation opportunities on the Iditarod Trail would be both beneficial in terms of recreation opportunity and negative in terms of desired experience. It is expected that an increase in use would provide growth potential for recreational services (lodges, gas) on the trail. This may enable more users to successfully negotiate the trail. Conversely, some users desiring a more rustic adventure that does not include such amenities, would be disappointed.

The most detrimental impact to recreation use would be the degradation of trail conditions generated from such a large amount of use. Without constant and professional trail conditioning (groomers, packers), the trail would likely become barren of snow in many locations and natural ice bridges and manmade crossings would likely become damaged. Trail marking, maintenance and monitoring costs would also increase. Increased use could create impacts to the quality of future recreation opportunities available on the Iditarod Trail.

3. Vegetation:

Impacts would be similar to those described in the Proposed Action. In addition, the degree of disturbance to vegetation depends on the number of vehicle passes, substrate, snow cover, and snow compaction. This alternative would result in greater impacts than any other alternative. The longer winter window of use could result in vehicles and dog sleds having to use the trail under less than optimum conditions. This would cause increased damage to vegetation. As the snowpack gets thin, soft, and/or overflow causes changes in traffic patterns, rutting can get much worse,

causing more changes in drainage patterns and microclimate for vegetation. As tracks spread out away from impassable areas, more vegetation will be directly impacted by crushing and disruption of the soil surface. The higher number of events bringing straw or hay material for dog bedding along the trail, increases the opportunity for establishment of undesirable weeds.

4. Wildlife:

   a. Large Mammals:
   Impacts would be similar to those described in the Proposed Action. Additionally, the longer winter window required to accommodate an increased number of events would increase habitat abandonment by large mammals that utilize the habitats adjacent to the trail. Subsistence and other hunters would be forced to utilize side trails to a greater extent, thus cumulatively increasing the area of impact to a much wider area. The accessibility, distribution, abundance, and movement patterns of large mammals would decrease and be impaired over time. Casual use increases would have the same effect, but over a longer period of time. A greater incidence of large animal confrontation and collision could occur resulting in injured participants as well as wildlife.

   b. Furbearers:
   There would be an increase in the potential for collisions with snow machines and disease transmission beyond that for all other alternatives.

5. Cumulative Impacts of Alternative B: Increased Use:
The impacts described for this alternative will add to the cumulative resource impacts in the area the trail passes through. As compared to the impacts already occurring over a wide area, this alternative will only add slightly to the negative resource impacts. This action will contribute highly to overall cumulative resource impacts to the trail and immediate adjacent areas.

The amount of potential use coupled with local travel and other casual use during a relatively short time frame will result in significant damage to vegetation, cultural resources, transportation routes, subsistence users and recreation opportunities. Without significant maintenance and facility upgrades or mitigation, the level of use anticipated under this alternative will result in unacceptable impacts.

6. Mitigation Measures for Alternative B: Increased Use:
In addition to the requirements outlined in the Proposed Action, the following mitigation measures will be required.

a. Require event organizers to begin and end their events during a time period not utilized for existing events.

b. Establish maximum user carrying capacities. In the event carrying capacities for the trail are being exceeded, a lottery or permit allocation system for new activities will be implemented.

c. Limit cabin use to a reservation system to reduce the potential for conflict between user and limit cabin damage from heavy use.

E. Impacts of Alternative C: Existing Condition:

1. Critical Elements:

a. Cultural:
Impacts to cultural resources would be similar to those described under the Proposed Action. Since the use level would be lower, impacts would be proportionately lower.

b. Subsistence:
Impacts to subsistence would be similar to those described under the Proposed Action. The level of conflict between trail users and subsequent users would be lower.

c. T&E Species:
Impacts would be similar to those described under the Proposed Action.

d. Wetlands/Riparian:
Impacts to wetlands/riparian areas would be the similar to those under the Proposed Action. However, reduced numbers of users would lower the level of impact during those periods of insufficient snow cover.

e. Wild and Scenic Rivers:
No impacts to the Unalakleet Wild River are expected.

2. Recreation:

   a. Competitive Events:
   Impacts to the recreation resource would be similar to, but slightly less intense than those described under the Proposed Action. There is a lesser potential for collisions and facility damage proportionate to the reduction in permitted users. Potential benefits to local villages (sales of fuel, food) accruing from more visitor use would be foregone.

   b. Commercial Events:
   Impacts under this alternative would be similar to those described under the Proposed Action. The difference in the amount of use would not be noticeable.

   c. Non-Permitted Events:
   Impacts under this alternative would be similar in effect to those described in the Proposed Action since those individuals attracted to using the trail to follow the competitive events would be less likely to use the trail resulting in less damage.

3. Vegetation:
Impacts would be similar to those described in the Proposed Action. The lower the amount of use, the less compacting of snow and subsequent vegetation damage. Lower use during limited snow cover periods will decrease impacts.

4. Wildlife:
Impacts would be the similar to those described in the Proposed Action. The use would be about 60 percent of the use analyzed under the Proposed Action.

   a. Large Mammals:
   The potential for collisions would be proportionately lower with less use. Habitat displacement would decrease due to lower noise levels and a shorter heavy use period.

   b. Furbearers:
   Impacts would be similar to those described under the Proposed Action, but with a decreased possibility.

5. Cumulative Impacts of Alternative C: Existing Condition:
The majority of the trail crosses through remote, unsettled portions of Alaska. These areas are experiencing limited growth around villages and some increase in recreation uses. Snow machine and ATV use is increasing particularly near villages and to a lesser degree near guide and hunting camps. This use causes impacts to the resources similar to those described throughout the document. These impacts can be severe near villages or between villages and are spread over a large area.

The impacts described for the Proposed Action will add to the cumulative resource impacts in the area the trail passes through. As compared to the impacts occurring over a wide area, the Proposed Action will only add slightly to the negative resource impacts. The action will contribute highly, but not as great as the Proposed Action or Increased Use Alternative, to the overall cumulative resource impacts to the trail and immediate adjacent areas.

The amount of use coupled with local travel and other casual use during a relatively short time frame will result in increased damage to vegetation, cultural resources, transportation routes, subsistence users and recreational opportunities.

6. Mitigation Measures for Alternative C: Existing Condition**:**
Mitigation measures for Alternative C will be the same as those for the Proposed Action.

V. CONSULTATION AND COORDINATION

A. List of Preparers:

In preparation of this document, the following specialists have been participants:

Donna Redding - Cultural, Historic, Paleontological
Jeff Denton - Subsistence, T&E Species, Wildlife
Bruce Seppi - Wildlife, T&E, Riparian
Debbie Blank - Vegetation
Mike Zaidlicz - INHT
Paxton McClurg, Ralph Falsetto - Maps
Jake Schlapfer - Recreation
Dave Doucet - Recreation
Callie Webber - Lands/Filming Permits
Kathy Stubbs - Lands/Realty