



# United States Department of the Interior

NATIONAL PARK SERVICE  
Alaska Regional Office  
2525 Gambell Street, Room 107  
Anchorage, Alaska 99503-2892

IN REPLY REFER TO:

L3127 (AKSO-EL)

OCT 27 1995

## Memorandum

To: Special Assistant to the Secretary, Alaska  
From: Field Director, Alaska  
Subject: RS 2477

Attached are the information and maps you requested regarding possible RS 2477 rights-of-way in Alaska national park units.

Robert D. Barbee

Enclosures

OVERVIEW OF IMPACT  
OF POSSIBLE RS 2477 RIGHTS-OF-WAY  
ON ALASKA NATIONAL PARK UNITS

The impact of RS 2477 rights-of-way on Alaska national park units could be devastating. The actual impact would depend on how many potential rights-of-way are validated, how long the rights-of-way would be, what resources they would affect, how each right-of-way would be used, and to what extent the National Park Service (NPS) can regulate and manage valid RS 2477 rights-of-way.

Number of Possible RS 2477 Rights-of-way

The State of Alaska's 1973 inventory of existing trails identified approximately 200 possible RS 2477 rights-of-way in Alaska national park units. The State's 1995 RS 2477 Project consolidated these routes in 163 possible rights-of-way and concluded that 111 of those routes are valid. An additional 52 possible rights-of-way were not completely analyzed and could be asserted later.

The 163 possible RS 2477 rights-of-way identified by the State in 1995 (incorporating all 200 identified by the State in 1973) are located in and include the following approximate mileages:

|                 |   |
|-----------------|---|
| 94 - 1612 mi    | - Wrangell-St. Elias National Park & Pres.  |
| 24 - 405 mi     | - Denali National Park & Preserve           |
| 16 - 257 mi     | - Bering Land Bridge National Preserve      |
| 10 - 202 mi     | - Yukon-Charley Rivers National Preserve    |
| 4 - 130 mi      | - Gates of the Arctic National Park & Pres. |
| 3 - 22 mi       | - Glacier Bay National Park & Preserve      |
| 3 - 66 mi       | - Katmai National Park & Preserve           |
| 3 - 113 mi      | - Lake Clark National Park & Preserve       |
| 2 - 22 mi       | - Klondike Gold Rush National Hist. Park    |
| 1 - 30 mi       | - Aniakchak National Monument               |
| 1 - 53 mi       | - Cape Krusenstern National Monument        |
| 1 - 73 mi       | - Kobuk Valley National Park                |
| <u>1 - 1 mi</u> | <u>- Noatak National Preserve</u>           |
| 163 - 2987 mi   | - TOTAL                                     |

Possible RS 2477 Rights-of-way on Section Lines

The State also contends that rights-of-way were accepted on all section lines by legislative proclamation. If this position is validated, the number of rights-of-way in each of the Alaska national park units will be limited only by the number of square miles within its boundaries. Furthermore, pending the current reconsideration of a case (Shultz) by the 9th Circuit Federal Court of Appeals, the State may be able to argue that use of the right-of-way need not remain on the actual section line. In either instance, Alaska national park units would be completely covered by north/south and east/west rights-of-way at approximately one-mile intervals.

The mileage of rights-of-way in Alaska national park units that would result by validation of section line easements pursuant to RS 2477 is estimated to be:

|             |  |
|-------------|--|
| 41212 mi    | - Wrangell-St. Elias National Park & Preserve  |
| 26476 mi    | - Gates of the Arctic National Park & Preserve |
| 20545 mi    | - Noatak National Preserve                     |
| 12777 mi    | - *Denali National Park & Preserve             |
| 12637 mi    | - Lake Clark National Park & Preserve          |
| 10259 mi    | - Glacier Bay National Park & Preserve         |
| 9487 mi     | - *Katmai National Park & Preserve             |
| 8703 mi     | - Bering Land Bridge National Preserve         |
| 7885 mi     | - Yukon-Charley Rivers National Preserve       |
| 5470 mi     | - Kobuk Valley National Park                   |
| 2092 mi     | - Kenai Fjords National Park                   |
| 2061 mi     | - Cape Krusenstern National Monument           |
| 1883 mi     | - Aniakchak National Monument                  |
| 40 mi       | - Klondike Gold Rush National Historical Park  |
| <u>1 mi</u> | <u>- Sitka National Historical Park</u>        |
| 170995 mi   | - TOTAL  |

\* The mileage for these parks does not include 6060 miles (Denali) and 3400 (Katmai) miles of section lines within areas of these parks that were established prior to 1923.

#### Affected Resources

Congress established the National Park System to conserve scenic, natural, historic, and wildlife resources for the enjoyment of current and future generations. The Alaska National Interest Lands Conservation Act specifically established or expanded 14 of the 16 national park units in Alaska to maintain and protect, in a natural, undeveloped, and unimpaired state: habitat for and populations of fish and wildlife; natural environments; geologic and biological processes; and wilderness character.

The possible RS 2477 rights-of-way identified by the State in Alaska national park units cross approximately 3,000 miles of undeveloped fish and wildlife habitat, historical and archeological resources, and sensitive coast lines and wetlands. Eleven of the 16 Alaska national park units are completely bisected by these possible rights-of-way. Some individual routes are over 100 miles long and many routes form networks that overlay and segregate primary resource areas. The possible RS 2477 rights-of-way identified by the State would also cross designated Wilderness in six Alaska national park units and areas suitable for wilderness designation in seven other units.

Validation of the 163 possible RS 2477 rights-of-way identified by the State would derogate resource values and impair the legislative purpose of Alaska national park units. Validation of section line easements pursuant to RS 2477 would have even more extensive impact on all resources based on the estimated mileage

and the comprehensive location of such easements.

#### Use of Possible RS 2477 Rights-of-way

Off-road vehicles (ORV) and road vehicles have rarely been used on possible RS 2477 rights-of-way in Alaska national park units. Nonmotorized or snowmachine access is generally allowed without permit in Alaska national park units. Where such access occurs, it does not typically threaten resource values. The use of ORV and road vehicles is generally prohibited off of maintained roads and designated trails. The NPS has determined that these modes of access create unacceptable resource impact and are, therefore, inconsistent with resource values and legislative purposes.

The State has stated that it intends to use RS 2477 to develop a modern transportation network for resource development and extraction. Any possible RS 2477 right-of-way used for this purpose will have a negative impact on the affected national park unit. ✓

#### Conclusion

To summarize, the State of Alaska has identified at least 163 possible RS 2477 rights-of-way across Alaska national park units. The State has also asserted all section lines to be RS 2477 rights-of-way. These possible rights-of-way would affect 173,982 lineal miles in Alaska national park units and are expected to impair scenic, natural, historic, wildlife, and wilderness resources if validated. ORV or road-vehicle use of these possible rights-of-way would significantly derogate Alaska national park unit values and purposes. The NPS has some authority to prevent derogation, but this authority is not complete and remains untested.

APPROXIMATE MILEAGE OF POSSIBLE RIGHTS-OF-WAY IN ALASKA NATIONAL PARK UNITS BY LAND STATUS

| NATIONAL PARK UNIT  | NPS LAND* | PRIVATE PATENT | NATIVE ALLOTMENTS SELECTED | NAT. CORP. CONVEYED | NAT. CORP. SELECTED | STATE CONVEYED | STATE SELECTED | WILDERNESS+ | OTHER FEDERAL | DUPLICATE MILEAGE | TOTAL TRAILS | TOTAL MILES |
|---------------------|-----------|----------------|----------------------------|---------------------|---------------------|----------------|----------------|-------------|---------------|-------------------|--------------|-------------|
| ALAGNAK             | 0         | n/a            | n/a                        | 0                   | 0                   | 0              | n/a            | 0           | n/a           | n/a               | 0            | 0           |
| ANIAKCHAK           | 20        | n/a            | n/a                        | 0                   | 0                   | 0              | n/a            | 0           | n/a           | n/a               | 1            | 30          |
| BERING LAND BRIDGE  | 245       | n/a            | n/a                        | 0                   | 12                  | 0              | n/a            | 0           | n/a           | n/a               | 16           | 257         |
| CAPE KRUSENSTERN    | 22        | n/a            | 31                         | 0                   | 0                   | 0              | n/a            | 0           | n/a           | n/a               | 1            | 53          |
| DENALI              | 402       | n/a            | n/a                        | 0                   | 3                   | 0              | n/a            | 28          | n/a           | n/a               | 22           | 405         |
| GATES OF THE ARCTIC | 90        | n/a            | n/a                        | 39                  | 1                   | 0              | n/a            | 65          | n/a           | n/a               | 4            | 130         |
| GLACIER BAY         | 22        | n/a            | n/a                        | 0                   | 0                   | 0              | n/a            | 7           | n/a           | n/a               | 3            | 22          |
| KATMAI              | 63        | n/a            | n/a                        | 3                   | 0                   | 0              | n/a            | 0           | n/a           | n/a               | 3            | 66          |
| KLONDIKE GOLD RUSH  | 0         | n/a            | n/a                        | 0                   | 0                   | 22             | n/a            | 0           | n/a           | n/a               | 2            | 22          |
| KENAI FJORDS        | 0         | n/a            | n/a                        | 0                   | 1                   | 0              | n/a            | 0           | n/a           | n/a               | 1            | 1           |
| KOBUK VALLEY        | 69        | n/a            | n/a                        | 4                   | 2                   | 0              | n/a            | 0           | n/a           | n/a               | 1            | 73          |
| LAKE CLARK          | 60        | n/a            | n/a                        | 0                   | 52                  | 1              | n/a            | 42          | n/a           | n/a               | 3            | 113         |
| NOATAK              | 0         | n/a            | n/a                        | 0                   | 1                   | 0              | n/a            | 0           | n/a           | n/a               | 1            | 1           |
| SITKA               | 0         | n/a            | n/a                        | 0                   | 0                   | 0              | n/a            | 0           | n/a           | n/a               | 0            | 0           |
| WRANGELL-ST. ELIAS  | 1,232     | n/a            | n/a                        | 190                 | 177                 | 13             | n/a            | 559         | n/a           | n/a               | 92           | 1612        |
| YUKON-CHARLEY       | 166       | n/a            | n/a                        | 31                  | 4                   | 1              | n/a            | 0           | n/a           | n/a               | 11           | 202         |
| TOTAL               | 2391      | n/a            | n/a                        | 267                 | 253                 | 37             | n/a            | 701         | n/a           | n/a               | 161          | 2987        |






\* This column represents "public lands" pursuant to ANILCA 102(3).  
 + Mileage across wilderness duplicates other mileage.  
 n/a = "No information available." No significant mileage expected.

DATA SOURCES: Historic Transportation Routes, ADNR, LRIS, Aug 1995. (Digital) Mileage derived by map measurer.  
 Inventory of Existing Trails, ADOT, Dec 1973. (Paper Maps) Mileage derived by linen map measurer.



# WRANGELL-ST. ELIAS NATIONAL PARK & PRESERVE POSSIBLE RS 2477 RIGHTS OF WAY

## LEGEND

-  Trails
-  Designated Wilderness
-  Non-Wilderness
-  ANCSA Patented
-  State Patented or TAD

## MILEAGE OF POSSIBLE RS 2477 R/W's

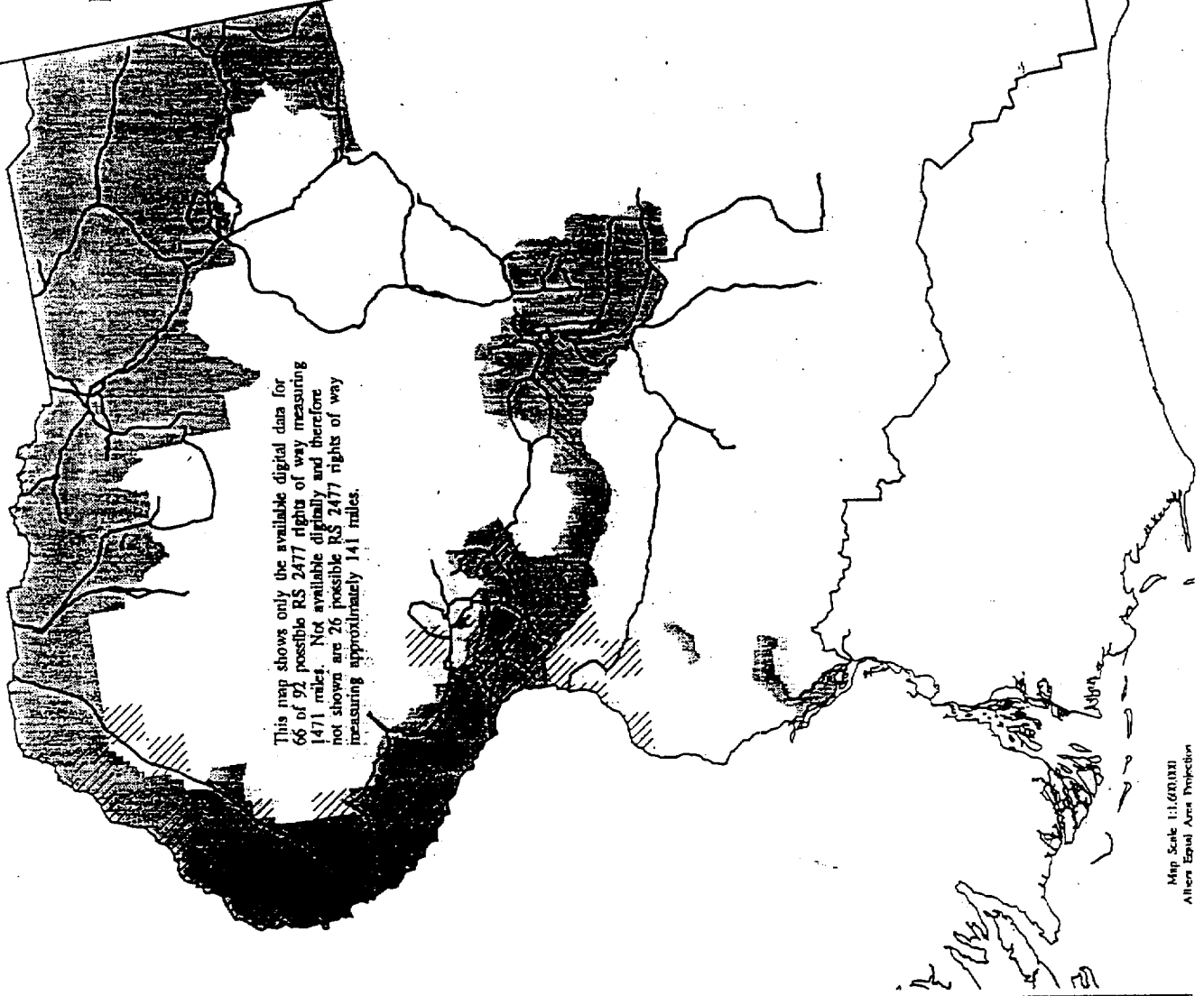
| # Trails | CSU * (Total) | Public Land | ANCSA Patented | ANCSA Selected | State Patented or TAD |
|----------|---------------|-------------|----------------|----------------|-----------------------|
| 92       | 1612 Mi       | 1232 Mi     | 190 Mi         | 177 Mi         | 13 Mi                 |

\* 559 Miles are in Designated Wilderness

## DATA SOURCES:

- Historic Transportation Routes
- Alaska Department of Natural Resources Land Records Information Section; Aug. 1995. (Digital)
- Mileage from this source derived from GIS computer analysis.
- Alaska Department of Transportation Inventory of Existing Trails; Dec. 1973. (Paper Maps)
- Mileage from this source calculated using a linear map measurer.

This map shows only the available digital data for 66 of 92 possible RS 2477 rights of way measuring 1471 miles. Not available digitally and therefore not shown are 26 possible RS 2477 rights of way measuring approximately 141 miles.



# WRANGELL-ST. ELIAS NATIONAL PARK & PRESERVE POSSIBLE RS 2477 RIGHTS OF WAY

This map shows only the available digital data for 66 of 92 possible RS 2477 rights of way measuring 1471 miles. Not available digitally and therefore not shown are 26 possible RS 2477 rights of way measuring approximately 141 miles.

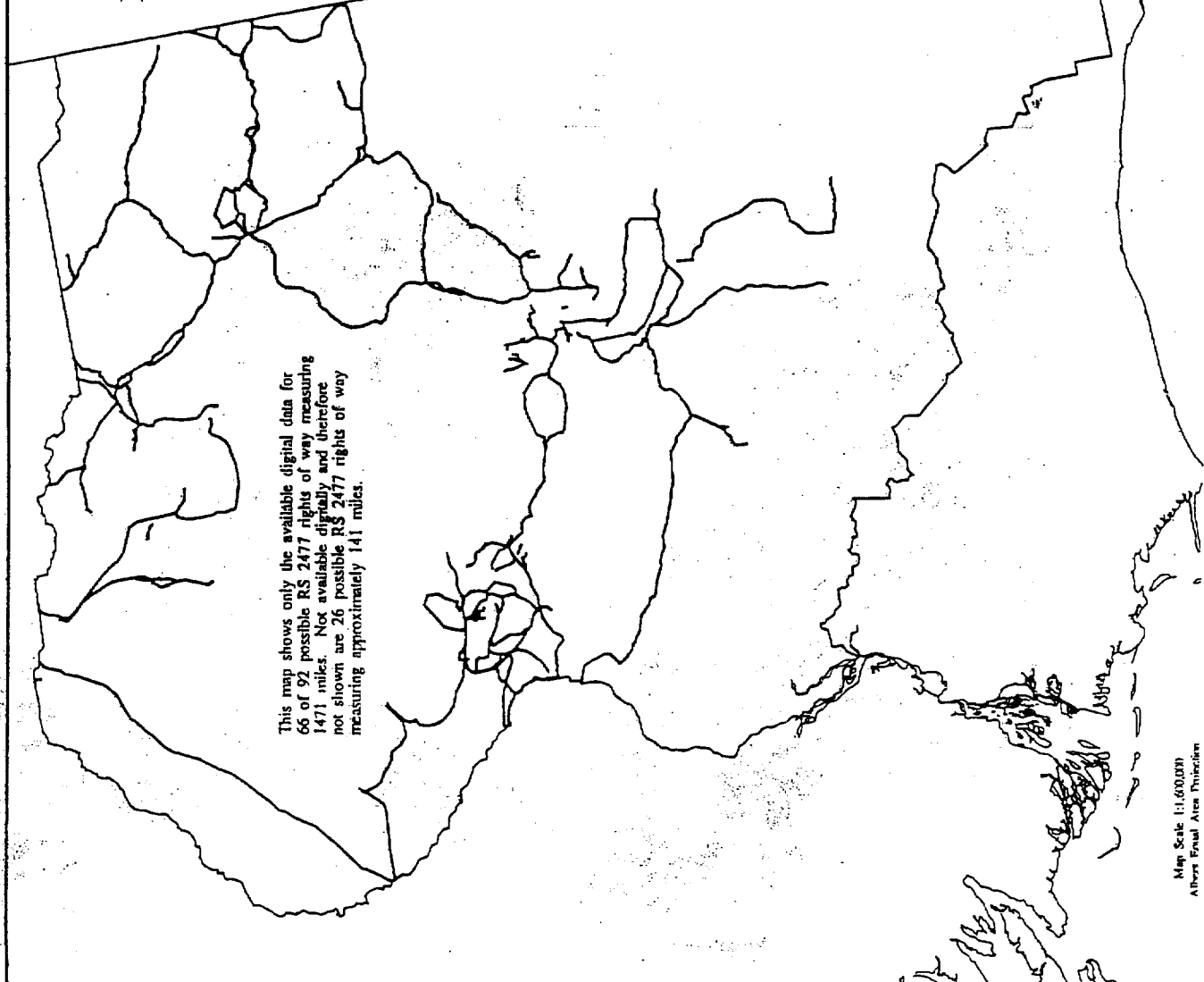
## MILEAGE OF POSSIBLE RS 2477 R/W'S

| # Trails | CSU * (Total) | Public Land | ANCSA Patented | ANCSA Selected | State Patented or T.A.U. |
|----------|---------------|-------------|----------------|----------------|--------------------------|
| 92       | 1612 Mi       | 1232 Mi     | 190 Mi         | 177 Mi         | 13 Mi                    |

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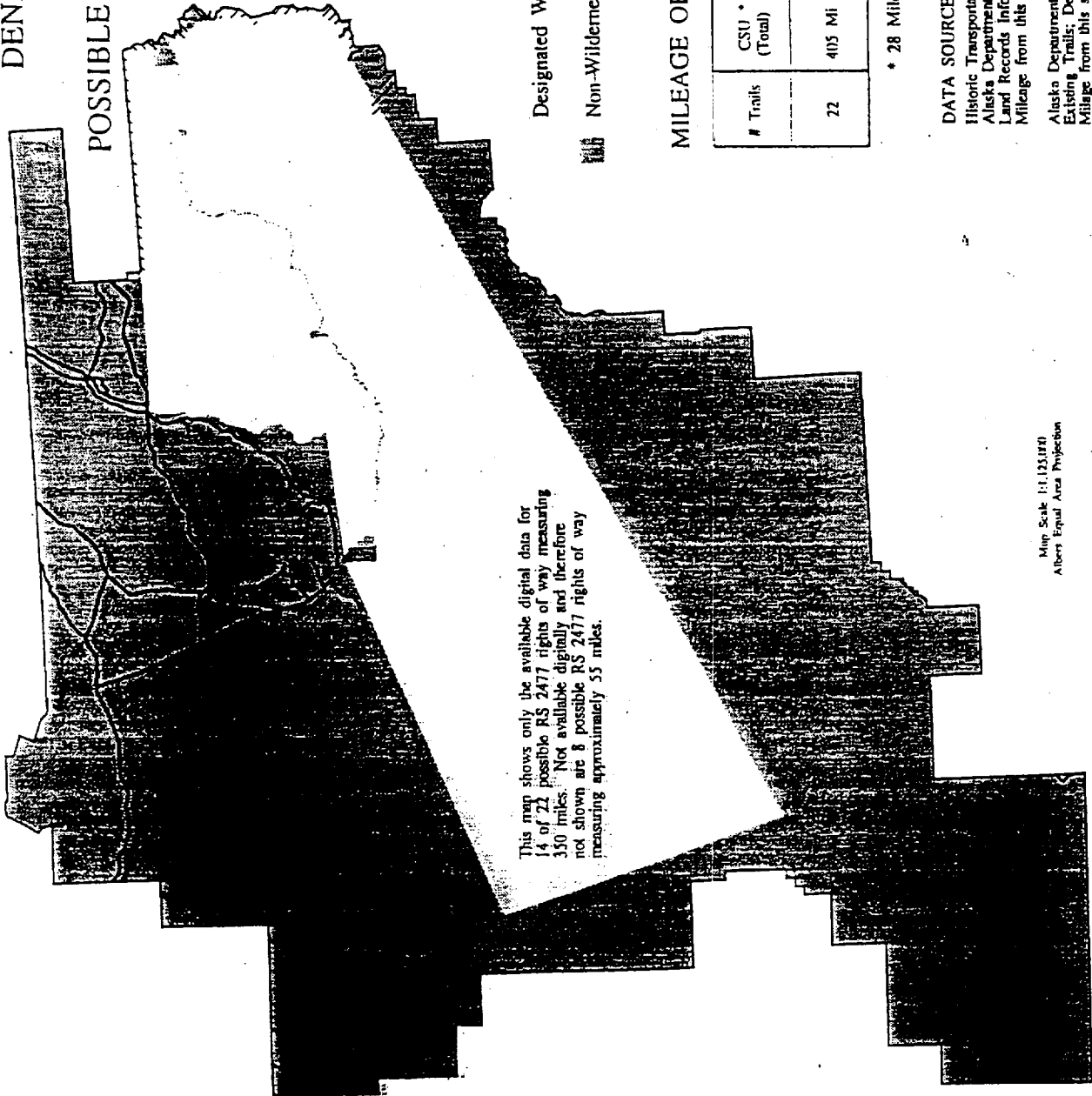


Map Scale 1:1,600,000  
Albert Ernaul Allen Thruway







# DENALI NATIONAL PARK AND PRESERVE

## POSSIBLE RS 2477 RIGHTS OF WAY



This map shows only the available digital data for 14 of 22 possible RS 2477 rights of way measuring 350 miles. Not available digitally and therefore not shown are 8 possible RS 2477 rights of way measuring approximately 55 miles.

### LEGEND

-  Designated Wilderness
-  ANCSA Patented
-  Non-Wilderness
-  State Patented or TAD

### MILEAGE OF POSSIBLE RS 2477 R/Ws

| # Trails | CSU * (Total) | Public Land | ANCSA Patented | ANCSA Selected | State Patented or TAD |
|----------|---------------|-------------|----------------|----------------|-----------------------|
| 22       | 405 Mi        | 402 Mi      | 0 Mi           | 3 Mi           | 0 Mi                  |

\* 28 Miles are in Designated Wilderness

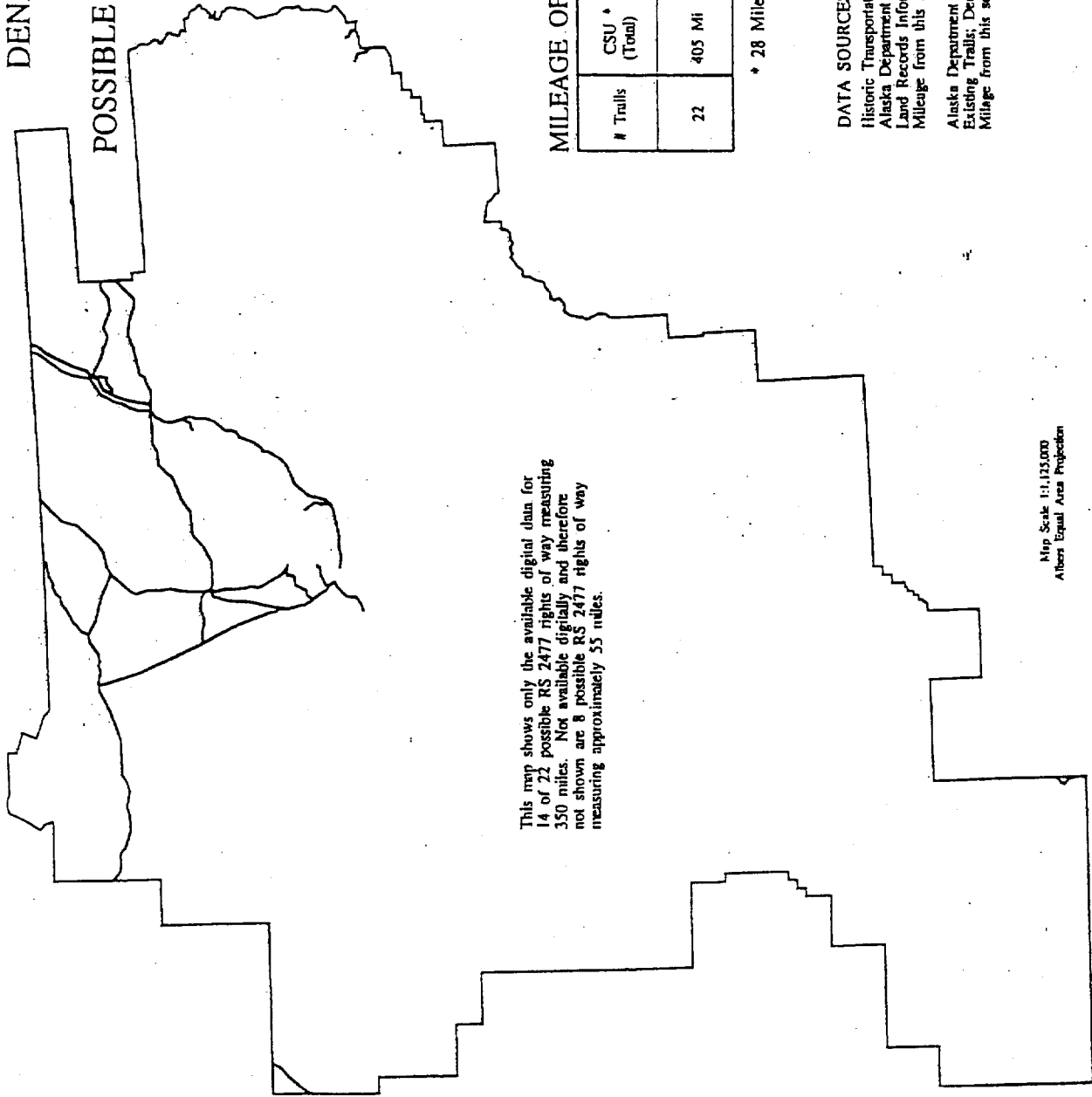
### DATA SOURCES:

Historic Transportation Routes  
Alaska Department of Natural Resources  
Land Records Information Section; Aug, 1995. (Digital)  
Mileage from this source derived from GIS computer analysis.

Alaska Department of Transportation Inventory of Existing Trails; Dec, 1973. (Paper Maps)  
Mileage from this source calculated using a linear map measurer.

Map Scale 1:1,251,000  
Albers Equal Area Projection

# DENALI NATIONAL PARK AND PRESERVE POSSIBLE RS 2477 RIGHTS OF WAY



This map shows only the available digital data for 14 of 22 possible RS 2477 rights of way measuring 350 miles. Not available digitally and therefore not shown are 8 possible RS 2477 rights of way measuring approximately 55 miles.

## MILEAGE OF POSSIBLE RS 2477 R/Ws

| # Trails | CSU * (Total) | Public Land | ANCSA Patented | ANCSA Selected | State Patented or TAD |
|----------|---------------|-------------|----------------|----------------|-----------------------|
| 22       | 405 Mi        | 402 Mi      | 0 Mi           | 3 Mi           | 0 Mi                  |

\* 28 Miles are in Designated Wilderness

### DATA SOURCES:

Historic Transportation Routes  
Alaska Department of Natural Resources  
Land Records Information Section, Aug. 1995. (Digital)  
Mileage from this source derived from GIS computer analysis.

Alaska Department of Transportation Inventory of Existing Trails; Dec. 1973. (Paper Maps)  
Mileage from this source calculated using a linear map measurer.

Map Scale 1:125,000  
Albers Equal Area Projection

RS-2477 'RIGHTS-OF-WAY  
WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE  
ALASKA

Summary: Wrangell-St. Elias Park and Preserve (WRST) at 13.2 million acres, is the largest national park in the United States. It is also the largest wilderness in the system, with 9.7 million acres. The unit was established on December 2, 1980 as part of the Alaska National Interest Lands Conservation Act for the purpose of

"To maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes, and streams, valley, and coastal landscape in their natural state; to protect habitat for, and populations of fish and wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl and marine mammals including reasonable access for mountain climbing, mountaineering, and other wilderness recreational activities."  
(ANILCA, 1980)

There are approximately 110 potential RS-2477 Rights of Way within WRST with a total distance of 1472 miles.

Current Access: Wrangell-St. Elias is accessible from the Alaska State-Highway system and is only 200 miles from Anchorage and 100 miles from the port city of Valdez. Two state roads penetrate WRST: McCarthy Road is 56 miles long and enters the park at Chitina and the Nebesna Road is 45 miles long and enters the Preserve at Slana. The RS-2477s would increase the total to 1572 miles or an increase of 1400%

Potential RS-2477 Rights of Way: The 1986 WRST General Management Plan identified 110 potential RS-2477 Rights of Way based on the State of Alaska determinations. Many have not been verified on the ground. Many of these routes were used only in winter, due to the wet soils and consequently there is no evidence of "construction". Because many of the routes are over permafrost or wet meadows, they would have significant effects to park, preserve and wilderness resources.

Four major new "trunk routes" would open up the Wrangells with multiple spurs from each:

Mallard Trail: (route 83-69 in WRST GMP, Route 139 on State Inventory, approximately 72 miles): This route crosses the entire front range of the Mt. Drum and Mt. Sanford. This is prime calving grounds for the Mentasta Caribou herd and hunting pressure on this declining herd would be significant.

Hananits Trail: (Routes 26-59 in WRST GMP, Route 425 on State Inventory, approximately 80 miles). This route travels the wilderness south of the Chitina, now an area that is reachable only by aircraft. Since subsistence is not permitted by aircraft,

this area would be opened to subsistence uses that are now very limited and have ALWAYS been limited.

Nizina-Chisana/Nebesna-Chisana Trails: (Routes 35-50 in WRST GMP, Routes 325-12 on State Inventory, approximately 120 miles). This route would basically create a road from McCarthy to Chisana to Nebesna making a loop road through the park wilderness. This route follows the "goat trail". Vehicular access, which is non-traditional on this historic trail, would greatly impact hiking and wilderness experiences.

Access from the Yukon: At least five of the potential RS-2477s will provide unlimited access from the Yukon Territory in Canada into the United States in WRST, This will create problems with customs and the potential for illegal aliens and poaching.

Number of Acres Impacted: If a road were built on each WRST RS-2744 ROW, assuming a 34 ft road surface and four foot shoulder for each as the minimum impact area then approximately 5400 acres of WRST would be bull-dozed to form the new road surfaces. If the RS-2744s were initially opened to ATV use, then even greater affects can be expected as braiding of trails in wetlands is a common problem.

--Wilderness acreage impacted: 525 miles/1900 acres (minimum)

--Non-wilderness (Park and Preserve): 946 miles/3440 acres (minimum).

Cost to Construct: Current cost estimates for upgrading the McCarthy road are about \$400,000 per mile. Using this estimate, which is low for new road construction, to convert the WRST RS-2477 ROW's to roads would cost the state \$600 million dollars. This does not include maintenance costs nor the cost of construct bridges over the numerous rivers and streams.

Effects on Fish and Wildlife Habitat: Most of the RS-2477 routes follow river drainages and valley bottoms which are prime habitat for caribou, brown bear, black bear, wolf, and moose. Direct impacts from construction will result in a loss of 5400 acres of habitat. Proximity to streams during construction will determine loss of fisheries habitat.

Effect on Fish and Wildlife Populations: There is a direct correlation between harvest and access. The mining EIS indicated and aversive conditioning to roads of approximately 0.5 miles (species will vary). While difficult to quantify, access via the RS-2477s will provide a 1400% increases in road accessible areas within WRST for wildlife harvest through sport hunting, subsistence, and poaching. Based on studies for the mining EIS, caribou could expect a decline in habitat use by maternal groups within a 2 mile radius of a road (dependent upon the visibility and vegetation type.) For grizzly bears: camp avoidance zone of 0.6 to 1.25 miles for traveling bears and 2.4-4.5 miles for bear denning and feeding sites (data from an arctic coastal site, would probably be less in a less open more wooded area such as

parts of WRST). If we assume a conservative secondary effect from each RS-2477 to an average distance of 0.5 mile on either side of the Right-of-Way (due to vehicle disturbance and impacts from hunting/trapping), and the RS-2477s exist primarily within that vegetative area, the approximately 1471 square miles or 940,000 acres of habitat will be affected by the RS-2477s.

Effects on Fish and Wildlife Migration Routes: While roads are not known as significant impediments to migration of caribou, they are important access points for subsistence and sport hunters. Harvest of migrating species can be expected to significantly increase. Lack of access is a deterrent to harvest and results in a "de facto" protection strategy of wildlife species within the park/preserve regardless of state or federal seasons and bag limits.

Effects on Wetlands: The majority of the trails are on soils that are in the discontinuous permafrost zone. Studies in the 1980's (Ahlstrand) and current studies indicate that repetitive passes (over 10) by mechanized equipment such as ATV's result in the removal of the protective vegetation and the dark soil warms and melts the permafrost forming large "mudholes". Continuous ATV use of these areas results in "braiding" of the trails (as operators try to avoid the mudholes) causing trails to exceed 1/4 mile in width. Without regular maintenance this braiding grows and intensifies habitat loss.

Effects on Marine Mammals: Within WRST several RS-2477s are on the Malaspina forelands and ATV's are currently used only by local rural residents for subsistence. The impact to marine mammals by opening these to all users is unknown.

Effects on Cultural Resources: If history is a guide, hundreds if not thousands of historic items have been removed from Kennecott National Historic Landmark due to the relative ease of accessibility. Similar historic resources from the mining days will be made accessible by the RS-2477s and subject to vandalism and collecting. Some of the routes are cultural resources themselves as paths used by natives, by miners and trappers. Conversion to roads will eliminate the historic fabric as well. Extremely important Native village sites such as Batzuintas lie along these RS-2477s and open access will conflict with traditional uses and values of the native Ahtna culture as well as subject these to "pot hunting".

Effects on Subsistence Activities: Local rural residents currently use ATV's and snowmachines in the Wrangells Park, Preserve and Wilderness for subsistence activities. This is an exclusive opportunity not afforded the general sport hunting public. Opening the RS-2477s route to all will have a direct impact and intensify competition to the legitimate subsistence local rural resident. Many of the winter trapper routes will be obliterated by the development. Areas currently difficult to reach due to the restriction on the use of aircraft for

subsistence will be open to new subsistence activities.

Wilderness Resources: WRST has 9.7 million acres of contiguous wilderness, the largest in the National Park System. 525 miles of RS-2477s are located within the WRST Wilderness and will directly affect the solitude, quiet, wildlife, aesthetics and sense of wilderness that is exemplified by the area. The RS-2477s will essentially penetrate and bisect every valley and cross every pass within the Wrangells Wilderness leaving the only wilderness to the peaks and ice.

Contact:

Jonathan B. Jarvis, Superintendent, WRST, (907) 822-5234  
(Prepared: 10/13/95)

RS-2477 Rights of Way  
Denali National Park and Preserve  
Alaska

**Summary:** Denali National Park and Preserve (DENA) at 6.028 million acres, is one of the largest national parks in the United States. It includes a 1.9 million acre designated wilderness area. The unit was originally established on February 26, 1917 and expanded on December 2, 1980 as part of the Alaska National Interest Lands Conservation Act.

There are approximately 28 potential RS-2477 "highways" within DENA with a total length of approximately 300 miles.

**Current Access:** Denali is accessible from the Alaska State Highway system and the Alaska Railroad. The park is about 120 miles from Fairbanks and 230 miles from Anchorage. Denali has approximately 90 miles of park road, and an additional 20 miles of State right-of-ways, including a 4.5 mile extension of the park road in Kantishna, 6 miles of Alaska Highway #3, and less than 10 miles of untravelled road which connected a coal mine to the Alaska Railroad during the 1940's.

National control of access within Denali National Park and Preserve has been the key to maintaining a high standard of visitor experience and habitat protection. Removal of that protection, for routes that do not objectively comply with the 1866 law, would be a sad legacy for the nation and that law.

**Potential RS-2477 Rights of Way:** The 1986 DENA General Management Plan identified 28 potential RS 2477 Rights of Way based on the State of Alaska determinations. Many represent trails and historic trapper/miner routes and have not been verified on the ground. Many of these routes were used only in winter, due to the wet soils and consequently there is no "construction". Cross-country travel in winter was not uncommon by dog team, a form of transportation not requiring highways. Because many of the routes are over mountains, rivers, permafrost or wet meadows, they would be extremely expensive to develop and would have significant effects to park, preserve and wilderness resources.

None of the RS2477 routes asserted to date would provide access to State or privately-held land which does not already have either a road or navigable river access. State management of these asserted routes would, however, create a demand for their use for AT\ORV recreation, hunting access, roadside camping, and other uses. These possibilities are in direct conflict with the congressionally stated reasons for creating and preserving Denali, including preservation of large areas of undisturbed wildlife habitat.

RS2477 routes in DENA can be categorized into two groups based on geographic locations:

**Northern Routes (Routes 8,9,10,13,84,92,171,172,173,174,237,244,245,252,253, 256,257):** The vast majority of these routes are concentrated in the Kantishna Hills. Some of these routes are of significant length such as the Lignite to Kantishna "highway" which is 85 miles long.

**Southern and Western Boundary Routes (Routes 6,7,11,16,18,87,89,90):** Five of these routes are on the southern border of the park. Two routes (on the western border) are

actually small segments of longer routes which occur mostly outside of the park. The eighth and final route is in the extreme western portion of the park.

Number of Acres Impacted: If a road were built on each DENA RS-2477 ROW, assuming a 66 ft. right of way for each as the minimum impact area then approximately 2400 acres of DENA would be converted to form the new road surfaces. If the RS-2477s were initially opened to ATV use, then even greater effects can be expected as braiding of trails in wetlands is a common problem.

-Non-wilderness (Park and Preserve): 275 miles/2200 acres (minimum).

-Wilderness acreage impacted: 25 miles/200 acres (minimum)

Cost to Construct: Cost estimates for developing a northern access route in DENA stood between \$1 and \$2 million per mile. Using the lower estimate, which was prepared in the mid-1980s, to convert the DENA RS-2477 ROW's to roads would cost the state \$300 million dollars. This does not include maintenance costs.

Effects on Fish and Wildlife Habitat: Most of the RS-2477 routes follow river drainages and valley bottoms which are prime habitat for caribou, brown bear, black bear, wolf, and moose. Direct impacts from construction will result in a loss of 2400 acres of habitat. In some cases, routes traverse significant wolf pack territories, provide access to caribou calving grounds, and bifurcate important caribou wintering grounds. Proximity to streams during construction will determine loss of fisheries habitat.

Effects on Fish and Wildlife Populations: Direct impacts to fish and wildlife populations, should RS-2477 routes be developed in the northern portion of the park, would be centered on wildlife disturbance. The presence of additional travel routes will lead to adverse impacts on animals by snowmachine use, noise disturbance, feeding and human food conditioning, garbage pilfering, and disruption of foraging and reproduction. The potential exists for increased mortality of wildlife through poaching, vehicular accidents, increased recreational pressure on fish resources, and perhaps an increase in pressure for subsistence harvests. Sport hunting is not permitted in the vast majority of areas that are traversed by proposed routes.

The Senate report that accompanied HR39 (ANILCA) states that "the prime resource for which the north addition [to DENA] is established is the critical range necessary to support populations of moose, wolf, and caribou as part of an integral ecosystem. Public enjoyment of these outstanding wildlife values would thus continue to be assured."

Impacts to these resources in the southern and western portions of the park would be similar but less severe because the routes do not penetrate deeply into the park.

Effects on Fish and Wildlife Migration Routes: Roads are important access points for hunters. Harvest of migrating species should be expected to increase. Lack of access is a deterrent to harvest and results in a "defacto" protection strategy of wildlife species within the park/preserve regardless of state or federal seasons and bag limits. In two cases, Dunkle Hills and the Wolf Townships, areas are used as important migratory destinations by caribou (wintering grounds during severe winters and calving grounds). Both areas contain proposed "higways".

Effects on Endangered Species: Sensitive species utilize these habitats permanently and



seasonally. Species of concern include the American peregrine falcon, the North American lynx, the Harlequin duck, the Northern Goshawk, and the Tule greater white-fronted goose.

**Effects on Wetlands:** The majority of the trails are on soils that are in the discontinuous permafrost zone. Studies in the 1980's (Ahlstrand) and current studies indicate that repetitive passes (over 10) by mechanized equipment such as ATV's result in the removal of the protective vegetation and the dark soil warms and melts the permafrost forming large "mudholes". Continuous ATV use of these areas results in "braiding" of the trails (as operators try to avoid the mudholes) causing trails to exceed 1/4 mile in width.

**Effects on Cultural Resources:** Route development will increase the opportunity for vandalism and destruction of cultural resources. In many cases, the value of these resources has not been assessed so it is difficult to determine the significance of their loss. In some cases, improved access to these features will pose increased health and safety risks due the presence of unsafe structures, unsecured mine shafts, and the presence of hazardous materials.

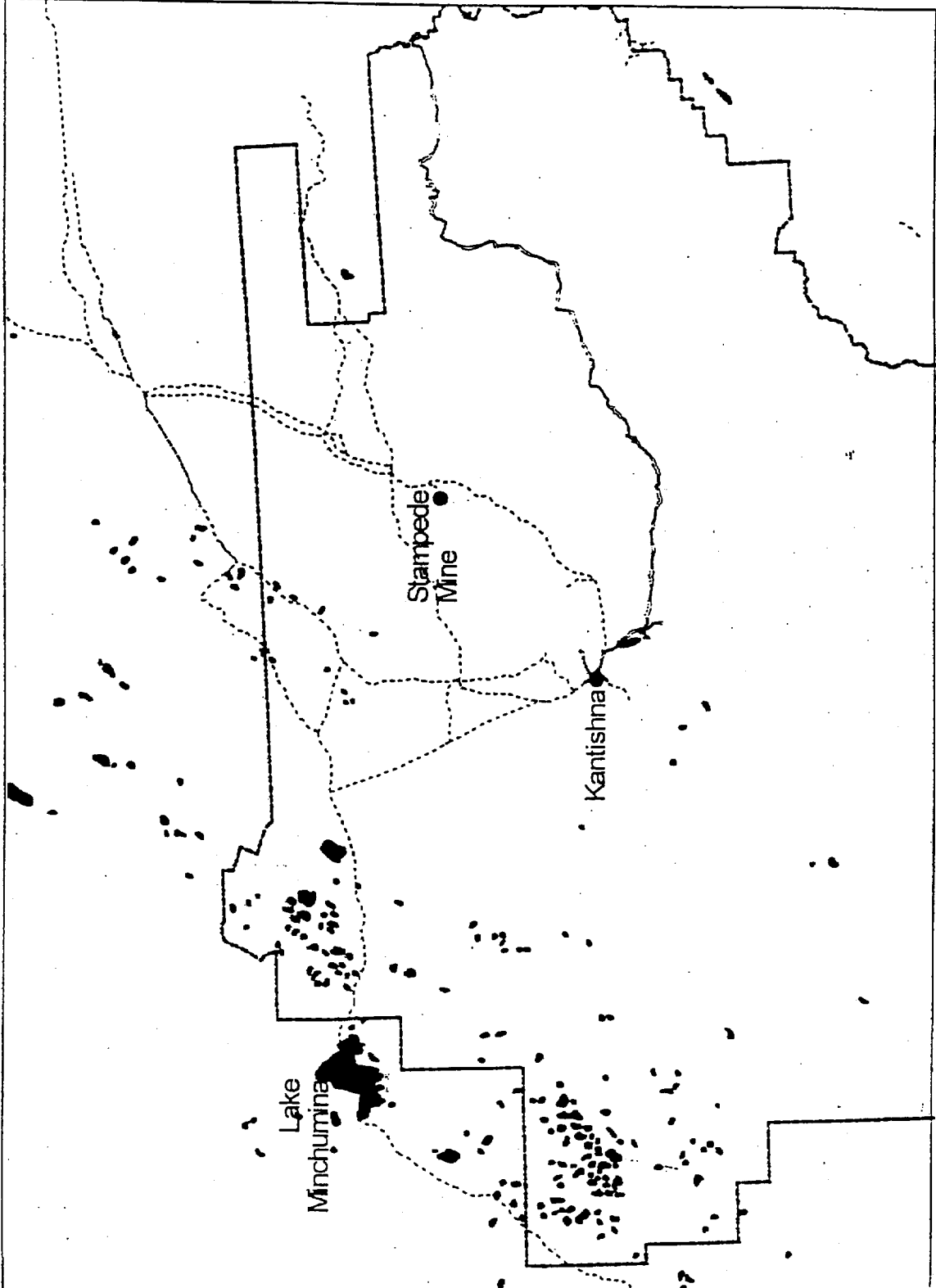
**Effects on Subsistence Activities:** Areas currently difficult to reach, particularly in the Kantishna Hills, due to the restriction on the use of aircraft for subsistence, will be open to new subsistence activities.

**Wilderness Resources:** DENA has 1.9 million acres of contiguous wilderness. Approximately 25 miles of the RS-2477s are located within the DENA Wilderness and will directly affect the solitude, quiet, wildlife, aesthetics and sense of wildness that is exemplified by this area. The remaining 275 miles of proposed routes enter or bisect proposed wilderness area. Significant deterioration of wilderness values would occur in the northern portion of the proposed wilderness if proposed routes were developed.

**Contact:**

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RS2477 Assertions by State of Alaska  
Denali National Park and Preserve  
1995



Legend  
RS2477  
Park Road  
Park Boundary

Source: Alaska  
Dept. of Natural  
Resources



4 0 4 8 Miles

