

MOOSE CREEK BIBLIOGRAPHIC REFERENCES

Name	Author	Year	Reference	Report Name
Moose Creek	BLM	October 16, 1975		Navigability Investigation Report on Moose Creek. Background, land status, physical data, historical use and current use
	BLM	October 16, 1975		Navigability Investigation Report on Unnamed Lake and Channel System in Section 21 and 28, Township 14 North, Range 19 East, Copper River Meridian the connecting Channel to Fish Lake. Background, land status, physical data, historical use, current use
	BLM	March 16, 1979		Navigable and Non-Navigable water bodies in the Northway Area, Eastern Alaska
	State of Alaska By Dale A. Stirling	August, 1982		Contemporary Uses of Lakes in the Northway Region of Alaska. pp 7, 11
	US Depart. of Interior BLM Navigability Bibliography	1962	4364	Murie, Margaret E. Two in the Far North. N. Y.: Alfred A. Knopf. 438 pp

NAVIGABILITY INVESTIGATION REPORT

on MOOSE CREEK

Affecting Northway Natives, Inc. Selection F-14912 A&A

I concur with the findings of this report

Thomas D. Williams 10/16/75

Gerald D. Timmons, Fortymile Area Manager

Richard H. LeDosquet

Richard H. LeDosquet, District Manager

BACKGROUND

The State of Alaska asserts that Moose Creek is navigable from its mouth on the Chisana River to the center of Sec. 30, T. 14 N., R. 19 E., CRM. Northway Natives, Inc. do not consider it as a navigable waterway, although they gave historical and present use information on it, which indicates its use as a travel route.

LAND STATUS

The part of Moose Creek considered navigable by the State is within the Northway Natives selection. It is in Sections 9, 16, 21, 20, 29 and 30, Township 14 North, Range 19 East, Copper River Meridian.

PHYSICAL DATA

Moose Creek has its mouth on the Chisana River about 2 miles downstream from Northway Junction. It is 50-75' wide and 3-5' deep up to the outflow of the unnamed lake in T. 14 N., R. 19 E., Sec 21 and 28. A channel from this unnamed lake flows into Moose Creek. From this point upstream, Moose Creek is narrower (30-50' wide) and slightly shallower (2-4' deep) trending to the east and going past the east end of the Northway Airstrip. It then continues to its headwaters far to the south.

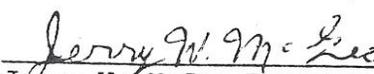
HISTORICAL USE

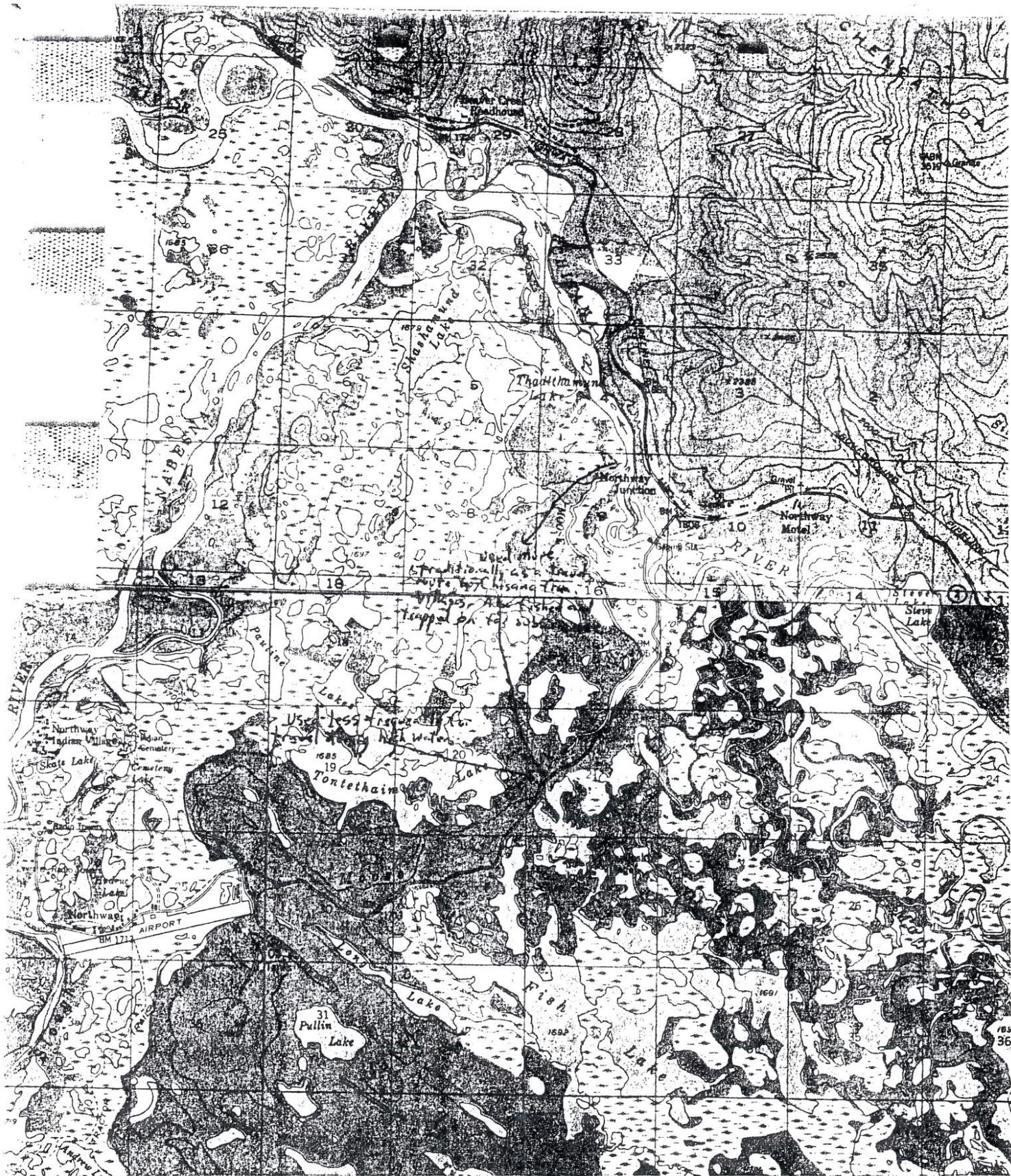
Information from local natives indicates that Moose Creek has long been used as a travel route to the Chisana River from Northway Village, Charlieskin Village, Kathakne and Fish Lake. Charlieskin Village and Kathakne Village (locally called "Fish Camp") are traditional subsistence fishing camps and before the road was put in, in the early Forties, the logical travel route from them to the Chisana River was on Moose Creek.

Moose Creek was also used as an alternate route to reach the Chisana River from Northway when the Nabesna was unusable due to ice jams, low water, or high water. The lower part of Moose Creek (from Charlieskin and Kathakne Villages to the Chisana River) was and is used for fishing and trapping muskrats for subsistence living. This information came verbally from Kenneth P. Albert, President of Northway Natives, Inc., and also several unidentified local natives.

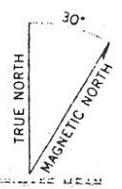
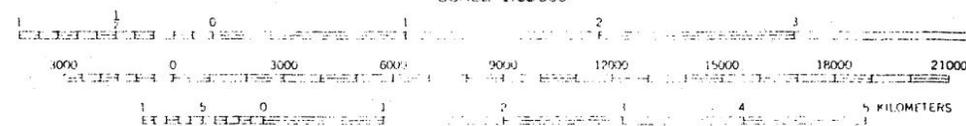
CURRENT USE

Current use is the same as historical use only to a lesser extent, because the road from Northway Junction on the Alcan Highway to the Northway Airport became an alternate travel route. Moose Creek is still used by boats and canoes for various purposes, including use as a travel route to the Chisana, for hunting and fishing for subsistence, trapping of muskrats, and for recreation. The lower part (Sec. 9, 16, 21) can be traveled by motor boat any time of the usable season (May-Sep). Above this, Moose Creek is usable by motor only during high water. It can be used by canoe at any time.


Jerry W. McGee, Forestry Tech 9/9/75 JWD



R 18 E T 19 N 50' (NABESNA D-21) P 19 E SNAB JUNCTION 74 MI P 20 E HAINES JUNCTION 254 MI
 NORTHWAY LANDINGS 116 0.4 MI SCALE 1:63360



CONTOUR INTERVAL 100 FEET
 DATUM F. MEAN SEA LEVEL

NAVIGABILITY FIELD REPORT

PHYSICAL DATA

Number/Name of Water Body Moose Creek Quadrangle Tanacross/Adleena
 Native Selection Impacted Northway F-14912, Jayen F-19155-20
 Location of Water Body T14N R18E S M
T14N R18E S. 24, 25 9, 16, 20, 24, 29, 30 - also 19
 Length 30 miles Width 30-50 ft Depth 4-5 ft at highwa
50 75 ft on lower half 2-3 ft at low
 Area Unknown time
 Discharge Unknown
 Bank Characteristics generally solid bank 1-3 ft higher
than water.
 Channel Characteristics straight channel - no meanders
or bays
2-3 mph
 Obstructions to Navigation bridge by Jerry Albert's house
on main Rd on S 25 T14N R18E
 Flood Characteristics 1-2 ft. water marks
 Length of Useable Season May - Sept.
 Type of Watercraft Commonly Used in Area riverbouts & small boats
 Other Transportation Systems Available road
 Need of Use of Water Body in Future Access to recreational & subsistence
areas within and south of native selected lands.
 Tidal Influence none

Remarks: Canoed up Moose Creek & then walked over
to this lake
Motor boats currently used at least all the way up
Moose Creek to near airport where Moose Cr. crosses Northway
 Report Prepared by Jerry W. McGee Review TOW
 Date 8/5/75 Date 10/16/75

NAVIGABILITY FIELD REPORT
HISTORICAL OR PRESENT USE DATA

Number/Name of Water Body Moose Creek Quadrangle Tanacross/Nabeena

Native Selection Impacted Northway F-14912, Dayton F-1455-20

Location of Water Body T T14N R19E C.R.M. R also S Secs 24, 25 M Secs 9, 16, 19, 20, 21, 29, 30

Type of Use(s) used in past for access to Chisana
lower part used for fishing & muskrat trapping.

Amount of Use T14N R19E Sect. 21, 16, 9 can be used at any t.
Open water - upstream from here is usable by motor only
highwater. Too shallow for motors above this point
(Kenny Albert)

Area of Use PRIMARILY from CHISANA to FISH LAKE, however
boats have been taken upstream to headwaters

Season of Use/Date used especially for access of trailered boats
to the Chisana during low water

Type Watercraft Used any kind jet boats, canoes, motor boats

Development Along Water Body
Past None except subsistence campsites, parallels
Northway road & goes through airport.
Present Subsistence campsites

Future No changes foreseen

Sources of Information Kenny Albert. (Northway)

Physical Report prepared? Yes No

Report Prepared by Jerry McLa
Date 8/15/75

Review TDN
Date 8/26/75

NAVIGABILITY INVESTIGATION REPORT

on

Unnamed Lake and Channel System in Section 21 and 28,
Township 14 North, Range 19 East, Copper River Meridian
the connecting Channel to Fish Lake and Fish Lake

Affecting Northway Natives, Inc. Selection F-14912 A&B
Doyon, Ltd Selection F-19155-20

I concur with the findings of this report

Thomas D. Williams 10/16/75

~~Gerald D. Timmons~~, Fortymile Area Manager

Richard H. LeDosquet

Richard H. LeDosquet, District Manager

BACKGROUND

The State of Alaska asserts that these bodies of water are navigable. Northway Natives, Inc asserts that they are not navigable.

LAND STATUS

The water bodies lie in the lands selected by Northway Natives, Inc., with the exception of some fingers of Fish Lake, which are on Doyon, Ltd selection, Sections 3 and 4, Township 13 North, Range 19 East, Copper River Meridian.

PHYSICAL DATA

The lakes drain into Moose Creek which drains into the Chisana River. Fish Lake is the upper one. The water levels fluctuate quite a bit between high to low water, to the point that the lake in Sections 21 and 28 (lower lake) becomes a series of channels and marshes during low water.

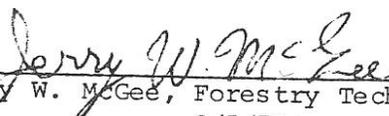
A bridge on the Northway road crosses the outlet of the lower lake where it flows into Moose Creek. The Northway road is adjacent to the North end of Fish Lake. The lake and channels are shallow but usable by canoe or motor boats most of the time. The connecting stream channel is 2-5' deep, depending on time of season. The main body of Fish Lake is 2-5' deep.

HISTORICAL USE

Historical information indicates that the lakes were used in the past as part of a travel route to Moose Creek. There are several Fish Camps around and between the two lakes. These fish camps are known as Charlieskin Village and Kathakne, often referred to locally as "Fish Camp". The camps have been used for many years, predating construction of the Northway road in 1942. The water bodies served as travel routes from the villages by boat, to Moose Creek and on to the Chisana River. The lakes and channels were also used for fishing with nets, trapping of muskrats, and for travel routes in hunting of waterfowl and other game.

CURRENT USE

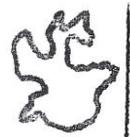
With the construction of the road from the Alaska Highway to Northway, use of the lakes and channels for a travel route had diminished and is of less importance. The lakes are still used for hunting and fishing, both on a subsistence basis by locals and for recreational purposes. Charlieskin Village and "Fish Camp" are occupied, and people still use the waters as a travel route, although on a more limited basis, since road access is available. Both lakes are accessible by road. Float-planes often land on Fish Lake.


Jerry W. McGee, Forestry Tech
8/5/75

T.D.W.

NAVIGABILITY FIELD REPORT

PHYSICAL DATA



Number/Name of Water Body none Quadrangle Nabesna

Native Selection Impacted Northway Natives

Location of Water Body T 14N R 17E S 213M CR
and connecting stream to Fish Lake

Length 2 miles Width 3 miles Depth 3-5 ft main channels

Area large areas of shallow marshy areas
1-3 ft most of lake

Discharge variable - these lakes get overflow from CHESAWA at high water

Bank Characteristics mostly marshy & gradual

Channel Characteristics 10-30 ft wide 3-5 ft deep

Obstructions to Navigation fish trap in stream connecting to Fish Lake

Flood Characteristics n.p.

Length of Useable Season May - Sept.

Type of Watercraft Commonly Used in Area Riverboats & Canoes.

Other Transportation Systems Available HIGHWAY / FLOATPLANES

Need of Use of Water Body in Future FOR Subsistence and recreation

Tidal Influence none

Remarks: Although no hard data it seems likely the old villages may have been served by HASDAROUCHA & other traders who went to all villages in the area by small gasoline freight boats

Report Prepared by Thomas D. Williams Review _____

Date 10/16/75 Date _____

NAVIGABILITY FIELD REPORT
HISTORICAL OR PRESENT USE DATA



Number/Name of Water Body none Quadrangle Nabesna

Native Selection Impact: _____

Location of Water Body T14N R19E S21 28M CRM
& connecting stream to Fish Lake

Type of Use(s) evidence of fish (fish traps
4-8 in stumps in several areas surrounded by water
indicate that water body is used for transportation
of logs or firewood

Amount of Use HEAVY

Area of Use Entire System

Season of Use/Date Spring for muskrats, summer/fall fishing,
fall duck hunting. Additionally used for travel year
round from old villages

Type Watercraft Used canoes, motor-boats

Development Along Water Body
Past Old villages of KATHARNE & CHARLESKIN

Present several Native houses,
several fish camps

Future PROBABLY ABOUT THE SAME

Sources of Information ROSE MAHER, KENNY ALBERT,

Physical Report prepared? Yes No

Report Prepared by Forestry Tech Jerry W. McGEE Review JPW
Date 8/5/75 Date 10/11/75

field inspected by canoe

NAVIGABILITY FIELD REPORT

PHYSICAL DATA

Number/Name of Water Body Fish Lake Quadrangle NABESWA

Native Selection Impacted NORTHWAY F-14912

Location of Water Body T R S M
THURLE

Length 1 mile Width varies 1/2 mile Depth 3 to 5 ft ave

Area 920 acres ± large water body in Sect 33 W is much 4-5 ft

Discharge Sect 33-34 part of the lake is shallower just 2-4 ft deep with much

Bank Characteristics mostly gradual with marshy areas on shores
Some slight banks and thin shores especially Sect 32, 33
Marshy areas to low country surrounding lake

Channel Characteristics channels not obvious or differentiated
between parts of the lake

Obstructions to Navigation not obvious. ~~but~~ no strong
flood marks seen. aquatic plants in about one third
of lake could interfere with motor.

Flood Characteristics no strong flood marks seen

ON Field trip part water marks show it has been as much
as 2 ft higher this year (1975)

Length of Useable Season May - Oct - open water - paths in winter after freeze-up

Type of Watercraft Commonly Used in Area Flot plane docked at N end of lake

Other Transportation Systems Available no roads

Need of Use of Water Body in Future access - for various people
including duck hunters & fishermen and traps in winter

Water quality good - clear

Tidal Influence none

Remarks: fishing potential good
large amounts of aquatic plants on bottom
of the lake in most areas

Some very small pockets of commercial size timber are
accessible by this lake

Report Prepared by Jerry W. McGee Review TOW
Forestry Tech

Date 8/5/75 Date 10/16/75

Canoeed in over all the lake

NAVIGABILITY FIELD REPORT
HISTORICAL OR PRESENT USE DATA

Number/Name of Water Body FISH LAKE Quadrangle NABESNA

Native Selection Impacted NORTHWAY F-14912

Location of Water Body T R S M
T14N R 19E

Type of Use(s) Same as previous reports; Native residences, including two old villages, Subsistence Hunting & FISHING, SPORT HUNTING & FISHING

Amount of Use HEAVY

Area of Use ENTIRE LAKE & STREAM SYSTEM

Season of Use/Date May - Oct and some year around use

Type Watercraft Used N 4286 H - single engine float plane

Development Along Water Body
Past 2 Villages

Present several houses on north side near road

Future Continued sparse residences

Sources of Information NORTHWAY NATIVES IN.

Physical Report prepared? Yes No

Report Prepared by Thomas D. Williams Review
Date 10/16/75 Date

Memorandum

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTIN REPLY REFER TO:
2650 (930)

To : State Director, Alaska Date: MAR 22 1979

FROM : Chief, Division of Resources

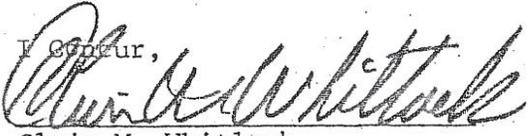
SUBJECT : Navigable and Non-Navigable Water Bodies in the Northway Area,
Eastern, Alaska

Attached is a staff report on the physical characteristics and historical uses of the upper Tanana River, the Nabesna River, the Chisana River, and creeks and lakes affected by Northway Natives, Inc. village selection applications F-14912A and B under the Alaska Native Claims Settlement Act. On the basis of this report, we recommend that the upper Tanana River (Tanacross to head), the Nabesna River (mouth to Northway), and the Chisana River (mouth to Scottie Creek) be determined navigable on the basis of susceptibility. With the exception of the Nabesna River, these recommendations reaffirm previous determination of navigability made by the Department of the Interior. Previously, it was determined that the Nabesna River was navigable to Nabesna Village.

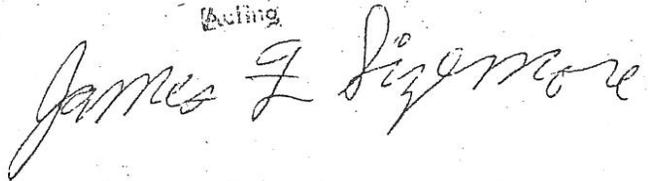
We have found no evidence of commercial boat traffic on the Nabesna River above Northway, the Chisana River above Scottie Creek, or the lakes and creeks in the Northway area. Moreover, we have found no evidence which would indicate that commercial boat traffic on these various water bodies is possible.

Your concurrence with these recommendations is requested.

Director,


Clair M. Whitlock
Acting State Director

Acting



Enclosure

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

IN REPLY REFER TO:

2650 (932)

TO : Chief, Division of Resources (930) *3/16/79*
Chief, Branch of Lands & Minerals (932) *3/16/79* *10 Minis. JIS*
FROM : Historian *C. M. Brown 3/16/79*
SUBJECT : Navigable and Non-Navigable Water Bodies in the Northway Area, Eastern Alaska

This report describes the physical characteristics and historical uses of the upper Tanana River (Tanacross to Chisana River), Nabesna River, Chisana River, and certain creeks and lakes in the vicinity of Northway, Alaska. A number of these water bodies have been identified by the State of Alaska in its Water Body Delineation Maps submitted to the Bureau of Land Management (BLM) by letter dated April 16, 1973, to be navigable for the purpose of travel, trade, and commerce. (1) We have found no evidence to support a determination that the water bodies in question were navigable in fact when Alaska became a State. However, we have found irrefragable evidence to support a determination that the upper Tanana River, the Nabesna River to Northway, and the Chisana River to Scottie Creek, were susceptible to navigation at the time that Alaska became a State. We have discovered no information to support the view that the various creeks and lakes near Northway are or were susceptible to navigation for the purpose of travel, trade, and commerce.

I. PHYSICAL CHARACTERISTICS

A. Nabesna River (2)

About 86 miles long, the Nabesna River rises at the foot of Nabesna Glacier, and flows in a meandering braided channel for 75 miles through a broad alluvial valley to unite with the Chisana River and form the Tanana River. Highly silted, with numerous gravel and sand bars throughout its length, the river is constricted to a single channel in only one reach, near river mile 27.

The river drains an area of 2,185 square miles. The river basin is about 100 miles long and 30 miles across its maximum width. From its headwaters at the foot of the glacier to Lick Creek, the river descends from an altitude of 2,980 feet to 1,980 feet at an average gradient of 23.2 feet per mile. From Lick Creek to the mouth, the river descends 280 feet at an average rate of 6.5 feet per mile. (3)

Above Lick Creek, the Nabesna River flows through an area dominated by the extremely high and rugged Wrangell Mountains and Mentasta Mountains. Below Lick Creek, the river flows through the high Black Hills before entering a flat but sloping outwash plain of muskeg and bog flats. The eastern edge of the Mentasta Mountains runs parallel to the river to mile 25. The Black Hills run through a section of the river between mile 30 and mile 25.

From the headwaters to Lick Creek, the river channel is highly braided. According to representatives of Grumman Ecosystems Corporation who inspected the river by helicopter in July 1974, the main channel of flow in this reach is extremely difficult to detect. The channels are numerous and narrow; and the flow is extremely swift with standing waves prevalent. In areas of extreme braidedness, the depth appeared to be shallow, often only inches deep. Where channels came together, the depth was probably greater. Channel widths are highly variable in this stretch of the river. Single channel widths range from 20 feet to about 1,000 feet. Representatives of the Grumman Ecosystems Corporation did not measure the velocity in this reach, but estimated it to be at least five feet per second. No snags or blockages were observed in the channels.

From Lick Creek to the mouth, the river is characterized by swift, turbulent flows, a relatively shallow stream gradient, and an abundance of flow volume. Although the river exhibits a braided character in this reach, the main channel of flow is more recognizable. The river begins to exhibit a meandering character in its lower few miles, flowing through a poorly drained area of muskeg and bog lakes near Northway. According to the Grumman Ecosystems Corporation representatives, the flow appeared to be very swift, even near the mouth, as standing waves were present. In July 1974, the representatives observed some inundation of vegetated area, yet not all gravel bars were covered over. Channel widths ranged from 100 to 1,000 feet in the main channel of flow. Bank-to-bank widths in many cases exceeded 0.5 mile, and approached one mile. In July 1974, the representatives measured the velocity just below the mouth of Lick Creek at five feet per second in the main channel, and seven to eight feet per second in a side channel. They could not, however, measure the water depth, due to the tremendous flow of water upon the weighted depth line. No snags or blockages were observed in this reach, although log piles were seen on gravel bars.

The river is frozen six to seven months of the year. Maximum open water flows occur during July. Annual maximum flows may exceed by four times the annual average, while winter flows may only be 20 percent of the average.

Unlike the Nabesna River valley, which is U-shaped, tributary valleys are V-shaped with steep gradients. Major tributaries of Nabesna River include: Bond Creek (mile 77), Jacksina Creek (mile 71.7), Jack Creek (mile 68), Platinum Creek (mile 64.8), Cooper Creek (mile 62.1), Stone Creek (mile 59.1), Lick Creek (mile 43), and Cheslina River (mile 25.8).

B. Chisana River (4)

Heading in Chisana Glacier, the Chisana River flows about 60 miles in a northeasterly direction, thence in a northwesterly direction for 55 miles to join the Nabesna River and form Tanana River. In the upper 15 miles, the river flows in a braided channel which has cut deep trenches in the glacial debris of the broad valley floor. Below Cross Creek, the river enters a canyon section in the Nutzotin Mountains for a distance of 14 miles before emerging onto the broad alluvial valley floor of the upper Tanana River. In the canyon section, the river is confined to a width of about 0.25 mile. Heavily laden with silt, the river is confined to one channel throughout its lower course beginning at a point below Mirror Creek.

About 120.5 miles long, the river drains an area of 3,420 square miles. The river basin is about 90 miles long and 50 miles wide across its maximum east-west extension. From the foot of Chisana Glacier to the mouth of Mirror Creek, the river descends 1,625 feet at an average gradient of 27.4 feet per mile. In the upper 5.5 miles, above Geohenda Creek, the river descends 295 feet at a rate of 53.7 feet per mile. In the canyon section, the river gradient is 50 feet per mile. (5) From Mirror Creek to the mouth, the river descends 195 feet at an average gradient of 3.2 feet per mile. The river discharges an average flow of 2,430 cubic feet per second. (6)

Landform in the area above Mirror Creek is extremely rugged. Slopes are unvegetated and excessively steep. Below mile 85, the river enters the outwash plain. The Black Hills cross the river near mile 65. Below Mirror Creek, the landform is characterized primarily by an extensive area of black spruce, muskeg and bog lakes.

From the headwaters to Mirror Creek, the river is characterized by a high fall rate, an extremely braided stream channel, and a very swift current. According to representatives of Grumman Ecosystems Corporation, the channel of main flow is indistinguishable above the mouth of Cross Creek. Numerous glaciers discharge meltwater in this reach. From mile 105 to mile 95, just above Sheep Creek, the river is relatively well-defined, although several channels are present. From the mouth of Sheep Creek to Mirror Creek, the river is extremely braided and shallow so that a main channel again is indistinguishable. The flow is very swift throughout the

entire reach, as standing waves were seen in many locations. Unable to make depth measurements, representatives of Grumman Ecosystems Corporation estimated the depth of the river near mile 102.5 to be about three feet. Shallower depths were observed throughout the upper reach.

Main channel widths in this stretch of the river varies from 100 yards at mile 102.5 to less than 30 feet in areas of extreme channel braidedness. Bank-to-bank widths approach two miles just below Chisana while it ~~narrows~~ narrows to about 0.25 mile below Cross Creek. Bank-to-bank widths north of the mountains often exceed one mile. In July 1974, river velocity measured at mile 102.5 was eight feet per second. River velocity was observed to be very swift throughout the entire upper reach.

Below Mirror Creek the river is characterized by a well-defined channel of flow. Immediately below the mouth of Mirror Creek, the stream gradient lessens and the braided character disappears. While the stream gradient varies from 27.4 feet per mile to more than 50 feet per mile above Mirror Creek, it is only 3.2 feet per mile below Mirror Creek. Thirteen feet deep at the mouth, the river has a good depth throughout this reach. Channel widths range from 200 feet near Mirror Creek to 600 feet at the mouth. Velocity measured near the mouth of the river in July 1974, was about three feet per second. The river was then in a moderate stage.

Like the Nabesna River, the Chisana River is frozen six to seven months of the year. Flows also vary according to the seasons.

Flowing through V-shaped valleys, major tributaries of the Chisana River include: Chathenda Creek (mile 113.4), Cross Creek (mile 105.9), Chavolda Creek (mile 105.5), Sheep Creek (mile 92.2), Mirror Creek (mile 61.2), Scottie Creek (mile 54.2), Gardiner Creek (mile 33.8), and Stuver Creek (mile 23.8).

C. Streams and Lakes in the Nabesna and Chisana Rivers Floodplains.

Detailed descriptions of every lake and creek in the broad floodplains of the Nabesna and Chisana rivers are not available. Notwithstanding the lack of detailed information about the numerous lakes in the area, it is possible to make generalizations about the water bodies. The investigations of Robert E. Wallace in 1945 concerning the relationship of permafrost with the development of cave-in lakes, combined with those of the BLM in 1975 concerning the navigability of certain water bodies in the vicinity of Northway, yield sufficient information for a broad characterization of the majority of lakes and streams in the subject area.

Working in cooperation with the U.S. Geological Survey and the U.S. Army in an effort to relate the development of cave-in lakes with permafrost conditions, Robert E. Wallace conducted field surveys during October and November 1945 in a 15-mile radius of the confluence of the Nabesna and Chisana rivers. According to Wallace, cave-in lakes (also known as thermokarst, kettle lakes, and kettle-hole lakes) result from the thawing of permafrost. Formation of these lakes begins at a point and, with geologic time, proceeds outward to form circular borders. Wallace described cave-in lakes in the vicinity of Northway as follows:

The cave-in lakes investigated are very shallow and have relatively flat bottoms, most being less than a maximum of 5-10 feet below the surface of the floodplains. The borders of the lakes are typically precipitous, dropping off steeply from the general level of the floodplain to the bottom of the lakes. The vegetal cover left unsupported by caving droops over the precipitous bank and, where the drop is not too great, forms a continuous mat over the cave-in banks and the adjacent bottom of the lake. Where the mat is not flexible or if the drop is too great, large cracks form parallel to the borders of the lake. In extreme cases large land slumps occur. (7)

As a result of his field work and analysis of aerial reconnaissance photographs, Wallace recognized a sequential progression in the development of cave-in lakes in the Northway area. In terms of geologic time, cave-in lakes are "old" near the lower parts of the Nabesna and Chisana river valleys, becoming "younger" as one moves up the river valleys, and finally almost disappearing above a point about nine miles from the mouth of the Nabesna River. (8) Wallace described four stages in this sequence:

The youthful stage is characterized by circular lakes a few hundred feet in diameter. In the early mature stage the lakes have joined to form aggregates of lakes having 'scalloped' shoreline patterns. The late mature stage is reached when an integrated drainage has formed between and through groups of lakes. The old age is typified by the predominance of natural levees that have formed along the drainage channels cutting the lakes, thus dividing the lakes into sections. In the old age stage the channels have the appearance of avoiding the lakes. (9)

During August 1975, Jerry W. McGee, a Forestry Technician with the Fortymile Resource Area of the BLM, examined a number of lakes and streams in the Northway area, and collected information about the water bodies from residents of Northway Village. McGee's reports on the physical characteristics of specific lakes and creeks in the Northway area are worthwhile summarizing

1. Deadman Lake. The lake is about 7,000 feet in length, and about 2,500 feet in width. It is four to 10 feet deep, with a few deeper holes. The outlet channel is very small: two to 10 feet wide and one to four feet deep. The lake is surrounded by rolling hills of spruce and aspen; and the banks are solid where adjacent to the hills. Marsh borders the lake in some places. The lake is stable in depth, and has very little outflow. McGee did not observe evidence of flooding, although he noted high water marks six inches above the water level.
2. Dog Lake. McGee stated that there was no permanent water access to the lake.
3. Eliza Lake. This lake has an area much less than indicated on modern U.S. Geological Survey topographical maps. It has a water depth of two to five feet. The banks are gradual and marshy. There are standing dead trees in some places near the lake. McGee noted evidence of high water marks two to three feet above the water level.
4. Fish Lake. Located near Northway, this clear-water lake has an average depth of three to five feet, with some shallower portions. Banks are mostly gradual with marshy areas on the shores. There are some slight banks and firm shores (especially in Sections 32 and 34). The lake is surrounded by marsh and low country. There are aquatic plants in about one-third of the lake. McGee did not find strong evidence of much flooding, but he did observe water marks in places as much as two feet above the water level. He also noted very small pockets of commercial-size timber near this lake.
5. Moose Creek. Flowing into Chisana River about three miles above its mouth, this creek is 50 to 75 feet wide and three to five feet deep up to its outflow of the unnamed lake in T. 14 N., R. 19 E., Sections 21 and 28, C.R.M. A channel connects the unnamed lake to the creek. From this point upstream the creek is narrower (30 to 50 feet) and shallower (two to four feet). The creek trends to the east and after passing the east end of the Northway airstrip, continues to the south. In the lower part, the banks are one to three feet higher than the water, and are generally solid. The channel is straight, and flows two to three miles per hour. Water depths range from four to five feet in high water stages; and two to three feet in low water stages.
6. Skate Lake. Located near Northway Village, this lake is about 2,500 feet in length, and 2,000 feet in width. It has a water depth of three to 10 feet. There are aquatic plants in the lake. The banks are generally gradual and solid; some banks are five feet high.

7. Tontethaimund Lake. This lake occupies a smaller area than indicated on modern U.S. Geological Survey topographical maps. Water depths range from two to four feet. The shoreline is very marshy with solid banks in a few places only. There is a large amount of aquatic vegetation. Flood marks indicate that water levels can be as much as two feet above the normal level. According to McGee, the lake has probably receded; it appears to be growing in from the shorelines.
8. Unnamed Lake and Channel System (Sec. 21 and 28, T. 14 N., R. 19 E., C.R.M.). Water depths in the main channel range from three to five feet; and in most of the lake, one to three feet. Large areas of the lake are shallow and marshy. The banks are marshy and gradual. McGee observed tree stumps in several places surrounded by water.
9. Unnamed Lake (Sec. 3 and 4, T. 13 N., R. 20 E., C.R.M.). Water depths in this lake range from three to five feet. The banks are marshy. Grass extends five to 40 feet in and around the lake. Higher ground surrounds most of the lake. There is no evidence of major flooding.
10. Unnamed Lake (Sec. 23, 24, 25, 26, T. 14 N., R. 18 E., C.R.M.). Water depths in this lake range from four to six feet. The south end of the lake consists of semi-solid marsh mats. About 75 percent of the shoreline consists of solid banks, surrounded by high ground. There is no evidence of major flooding.
11. Unnamed Lake (Sec. 33 and 34, T. 14 N., R. 20 E., C.R.M.). Water depths in the lake range from five to seven feet. The banks are low to gradual, while marsh extends 15 to 20 feet around the lake. There is no evidence of major flooding.
12. Unnamed Lake (Sec. 29 and 30, T. 14 N., R. 20 E., C.R.M.). This lake occupies an area much smaller than indicated on modern U.S. Geological Survey topographical maps. Water depths in the lake range from two to four feet. Most of the banks are gradual and marshy, and soft ground extends 50 to 200 feet from the banks into the water. The lake is apparently flooded by Chisana River. Much of the surrounding area show flood marks. There are many tree stumps in the lake.
13. Yarger Lake. With a surface area of about 480 acres, this lake has a water depth of four to 10 feet with some deeper spots likely. The outlet channel is very small. Outflow into Chisana River occurs only at times of high water. Firm banks and high ground occupy about half of the lake perimeter, with marsh in the remaining distance. There are tree stumps in some places around the lake. There is no evidence of major flooding.

In summary, the lakes and creeks in the Northway area are small and shallow. Most of the lakes are surrounded by marsh; and in some cases marsh extends into the lakes. Some of the larger lakes, such as Deadman Lake and Yarger Lake, have solid banks, and the surrounding terrain is hilly. The majority of the lakes are landlocked. Those that are not have shallow and narrow outlets with high banks. Lake and creek depths vary according to the seasons. Most of the lakes, being landlocked, are frozen from seven to eight months of the year.

II. HISTORIC USES

A. Mining

The history of mining in the upper Copper and Tanana rivers properly begins with the famous Klondike Gold Rush of 1897-98. Thousands of people rushed to Valdez in 1897 and 1898, many hoping to find an "all-American" route to the distant Klondike strike in Canada, others expecting to find gold "strewn along the river valleys of Alaska like pebbles on the shore of the ocean." Many prospectors discovered gold on the tributaries of the Copper River; but it was their discovery of copper near the head of Chitina River, a tributary of the Copper River; that led to the development of a mining industry in the Copper River valley.

Morgan-Guggenheim capitalists subsequently entered the Copper River district to develop the copper mines at Kennecott, and in the years 1906 to 1911 constructed the Copper River & Northwestern Railway, a 196-mile line extending from the ice-free port of Cordova to McCarthy. In the meantime, the War Department, responding to demands for an all-American transportation and communication system in Alaska, constructed a trail and telegraph line from Valdez to Eagle on the Yukon River. Following the Fairbanks gold rush of 1903, the Alaska Road Commission, an agency of the War Department created by Act of Congress in 1905 to construct roads and trails in Alaska, began construction of a wagon road from Valdez to Fairbanks. Passable for wagons in the mid-1910's and for automobiles in the mid-1920's, the road is now called the Richardson Highway.

The discovery of gold and copper in the Copper River valley; the construction of the Copper River & Northwestern Railway, Richardson Road and the Chitina-Copper Center Road connecting the railroad and the military road; and the willingness of big business to invest in promising mines; all had the effect of stimulating prospecting activities in the region. Most attention was devoted to the Chitina River valley, since it was accessible by the railroad; but some prospectors heeded the reports of the U. S. Geological Survey of favorable mineral indications on the north face of the Wrangell Mountains. During the 1890's and the 1900's, a number of Geological Survey parties explored the upper Tanana River area as part of an effort to map the Copper

River valley and Wrangell Mountains, and to locate potentially valuable minerals and other natural resources as well as possible transportation routes. The work of Dr. C. W. Hayes and Lt. Frederick Schwatka in 1891, Alfred H. Brooks and William Peters in 1898 and 1899, Oscar Rohn in 1899, D. C. Witherspoon and F. C. Schrader in 1902, and finally F. H. Moffit in 1908, resulted in geological and geographical reports and maps which proved invaluable to prospectors and miners in search of mineral wealth.

Prospectors and miners first entered the headwaters area of the Nabesna and Chisana rivers shortly after the Klondike Gold Rush. In 1899, Brooks and Peter met two prospectors, E. J. Cooper and H. A. Hammond, on the White River. Both prospectors had reached the area by traveling overland from the upper Copper River. In 1905, a group of prospectors led by Henry Bratnober, a mining engineer who had spent several years in the White and Copper river country, entered the area by way of the Tanana and Nabesna rivers, and discovered copper on Jacksina Creek, a tributary of Nabesna River. The Royal Development Company subsequently worked the prospect, and erected a 3-stamp mill at the site in 1906. According to a U.S. Geological Survey report, the mine was yielding \$12 a ton in 1908. Without adequate transportation facilities, the Bratnober interests were unable to develop the prospect to any major extent, and thus suspended mining operations. The mine was not abandoned, however. Bratnober's associates performed assessment work on the claims, and continued to prospect the country. Several of the men would, in 1913, participate in the discovery of gold on Chisana River. (11)

With the improvement of the Richardson Road for motor traffic in the mid-1920's, and the construction of the Nabesna Road in 1929-33, the upper Nabesna River valley became more accessible; and mining, more feasible from an economic standpoint. In 1929, Carl F. Whitham, who had first entered the area with Bratnober in 1905, organized the Nabesna Mining Corporation to mine gold at the present site of Nabesna. The company placed a mill in operation at the site in 1931. Mining continued with some interruptions until about 1947, when most of the ore bodies were exhausted. Gold valued at \$1.9 million had been taken from the mine. The Minerals Exploration Company purchased the abandoned mine in 1966, and is now reportedly attempting to sell the place. (12)

Large-scale mining on Chisana River began in 1913. In that year, several prospectors in Dawson, Canada, reported a rich find in the headwaters of Chisana River, and thereby caused a minor gold rush to the area during the fall and winter of 1913-14. Several thousand men rushed to the country, many of them inexperienced and most without the proper equipment and

supplies. Most reached the diggings by way of White River, the McCarthy-Chisana trails, and the Gulkana-Chisana trail; but many also reached the new strike by way of the Tanana, Nabesna, and Chisana rivers. The winter proved hard to many of the prospectors, and large numbers subsequently left. A few of the prospectors who had staked the most valuable placer ground remained, and some were still mining the creeks in the late 1930's. In 1940, total production of placer gold from the Chisana district was estimated to be about \$970,000, most of the gold coming from Bonanza and Little Eldorado Creeks and the tributaries of Wilson Creek. (13)

In more recent times, mineral discoveries have been made at the head of Nabesna River and on McArthur Creek, a tributary of Ladue River. In 1974, the Grumman Ecosystems Corporation noted the development of a copper-mining community near Orange Hill, at the foot of Nabesna Glacier. (14) In the summer of 1975, more than 100 gold-mining claims were staked on McArthur Creek. It is not known at present whether the claims are being developed. (15)

B. Trading

Indians of the upper Tanana River first came into contact with white trade goods through the Copper River Indians. Shortly after the Fairbanks gold rush of 1903, white traders penetrated the area via the Tanana River. In 1907 or 1909, Captain James A. Northway established a trading post near the mouth of Nabesna River and possibly on the Tetlin River. In 1913, it was reported that Northway traveled each summer to his trading post near the mouth of Nabesna River, where he traded with the Indians. At the time of the report, Northway had just left Fairbanks on the launch Tetlin, intending to visit his copper prospects in the upper Nabesna River valley, and the famous Kennecott mine on Chitina River. (16) Northway remained in the upper Tanana area until his death in 1923. In 1922, he was operating the small steamboat Little Delta on the upper Tanana River. He was found dead on the steamboat in 1923. (17)

The trade with the upper Tanana Indians must have been profitable in view of the fact that rival traders operated in the area from the 1910's to the 1940's. In 1912, William H. Newton, who established his primary trading post on Healy River in 1907, opened stores at Tanacross and at the mouth of Nabesna River; he sold his Nabesna River store to a John Strelie in 1914 and removed to Healy River. (18) Newton may have remained in the upper Tanana trading business until about 1920, when John Hajdukovich entered the field with stores at Healy River, Tetlin, Last Tetlin, and Nabesna River.

During the 1920's and 1930's, Hajdukovich's rival in the upper Tanana trade was Herman Kessler, who opened a store on the Nabesna River in 1920. Kessler traded primarily with Nabesna Village, which in 1920 had a population of 33 Natives. (19)

According to anthropologist Robert McKennan, who visited the area in the winter of 1929-30, Kessler also had a post near the mouth of Gardiner Creek on Chisana River, where he dealt mostly with the Scottie Creek band. This band, totally nomadic, also traded at Canadian stores on Snag Creek and Wellesley Lake. (20)

When Hajdukovich abandoned his trading posts cannot be determined with precision. It is likely that he quit the business in the late 1930's. In the mid-1920's, he constructed a trail from Tanacross to Tetlin Lake. During the 1930's, he acted as a guide for tourists and hunters on the upper Tanana River, where he had a hunting lodge on Little Gerstle River. He was last reported in 1946, then he was involved the construction of an aviation field at Tetlin. (21)

Kessler continued in the trading business until forced to declare bankruptcy in 1948, perhaps as a result of excessive competition. At that time he was competing with five other traders. Also, the Northway Native Store, owned by local residents, had been in operation for at least five years. On occasion, itinerant traders John Schwegler of Fairbanks and Charles Goldstein of Juneau also traded with the Indians of Northway Village. (22)

Most trading was conducted during the winter. During the summer; the traders would make their annual trips down the Tanana River to Fairbanks in order to purchase trading goods. McKennan described the traders' annual peregrinations as follows: "Goods were brought in during the summer in power-driven scows and distributed to these three posts [Tanacross, Tetlin, and Nabesna River]. In the winter the traders drove by dog team to their various stores where the Indians came in to meet them, and on occasion they drove to the more distant Indian camps. During the spring when the Indians were muskrat hunting, the traders journeyed from camp to camp via outboard motors." (23)

Interviewed by a BLM official 1975, Ted Lowell, who worked for John Hajdukovich from 1929 to 1936, stated that their primary trading post was near the mouth of Healy River; they operated additional stores at Tetlin, Last Tetlin, and near Gardiner Creek, on the Chisana River. Each summer Hajdukovich and Lowell made six to 12 trips in freight boats to the upper Tanana River villages. The two men ascended the Healy River in boats to trade with Indians on Healy Lake. At Tanacross, they traded with Natives who had descended Fish Creek in canoes. The traders also ascended Tetlin River to Tetlin; crossed Tetlin Lake to gain access to Last Tetlin; ascended Nabesna River to Nabesna Village; and proceeded up the Chisana River as far as Scottie Creek. (24)

Trade commodities in the upper Tanana River area consisted almost entirely of fur. Reflecting upon the impact of the white man upon the Native economy during the years 1920 to 1949, Herman Kessler stated that the Indians mainly trapped fox, mink, muskrat; beaver, martin, and a few lynx. Beavers were not plentiful until the late 1940's, and were in any case closed to trapping until 1948. Martens were also trapped, but prior to 1946 the season was periodically closed. In early years, fox pelts were important, but had declined in value to the extent that the Indians made little effort to trap them. Muskrat pelts were the primary trade item. Kessler stated that in 1938, he and Hajdukovich handled 28,000 muskrat skins. In 1948, Kessler alone handled about 6,000 muskrat skins. (25)

In 1945, R.L. Jennings of the Alaska Native Service at Northway included the fur of black bear, beaver, coyote, fox, lynx, martin, mink, muskrat, otter, weasel, wolf, and wolverine, as well as boat and sled construction, tanning, and garden products, as sources of income to the local Natives. The furs were disposed of in the following manner: local non-native establishment, 30 percent; local native establishment, 30 percent; shipped outside, 25 percent; itinerant buyer, five percent; other villages, non-native establishment, five percent; and not sold, five percent. About 75 percent of all finished craft products were sold to personnel at Northway. Fish was never a trade commodity. All fish caught by the Indians were used strictly for subsistence purposes. (26)

During the 1920's and 1930's, the Indians obtained such goods as canvas tents, sheet-iron stoves, cloth clothing, rifles, blankets, and tea from the traders. According to McKennan, "The difficulties of transportation favored small, expensive articles such as clothing, beads, or the like rather than bulky items such as flour; thus it was much more profitable to handle expensive luxuries such as portable phonographs or ladies rayon bloomers than the bulkier and cheaper goods ordinarily regarded as necessities of life." (27) Tea was a much desired item. McKennan recorded one trader's statement that he had traded 3,000 pounds of tea in one year, the bulk of it going to the upper Tanana Indians. (28) Following the construction of the Alaska Highway and the Northway aviation field in the early 1940's, the Indians were able to acquire the bulkier items. (29)

C. Hunting, Fishing, and Trapping

The headwaters area of the White, Chisana, and Nabesna rivers has long been known for its excellent hunting opportunities. Since the 1910's, big game hunters have often commented upon the large number of sheep of trophy class in the mountains. During the Chisana gold rush, many people survived the winter of 1913-14 by taking caribou, sheep, moose, and ptarmigan. (30)

Since the 1930's, one guide named Lou Anderton has made a livelihood at Chisana by taking hunting and fishing parties to favorite locales on pack animals. (31) In the early 1960's, hunters often hired Floyd Miller, the proprietor of Northway Airport Lodge, to fly them to Chisana. Others have taken the Nabesna Road to Nabesna Mine, where they traveled to hunting grounds by boat, pack animal, or on foot. (32)

Since the construction of the Alaska Highway and the Northway field in the early 1940's, the lower Nabesna and Chisana rivers have been exploited by a number of non-Native hunters, trappers, and fishermen. Most hunting and fishing by non-Natives probably occurs on lakes and streams near the Alaska Highway and the Northway Junction Road. Non-Native trappers are known to have worked the same lakes and creeks which local Natives have traditionally trapped. In the years 1945 to 1949, for example, white trappers operated on Ladue River, Scottie Creek, Gardiner Creek, Bitters Creek, Beaver Creek, Moose Creek, and Deadman Lake; and in some instances established homesteads in the area. (33)

The increasing non-Native population in the Northway area undoubtedly had an effect in the reduction of area used by upper Tanana Indians for subsistence activities. Until the 1910's the subsistence area included the entire drainage of the Nabesna and Chisana rivers. As the rivers became easily accessible to non-Natives in airplanes and automobiles, and as modern non-Native communities were established on Nabesna River, the Indians in the headwaters of the Nabesna and Chisana rivers moved down to Nabesna Village or Northway Village. In 1951, according to one report, the last of the Indians moved their village downstream to Nabesna Village or Northway Village. (34) In 1945, R. L. Jennings of the Alaska Native Service described the area being used by the people of Northway Village in carrying out their normal activities, that is hunting, fishing and trapping, as follows: "The area begins at the west bound[a]ry of Tetlin reservation and runs west to the top of the Nuwatson (sic) range, 40 mi., then along this range southeast to the international bound[a]ry, 75 mi., north along the boundary to LaDue Creek, 35 mi., then along the LaDue Creek to where it leaves Tetlin reservation, 35 mi., and along Tetlin reservation to west bound[a]ry, 25 mi.: approximately 2500 sq. mi. This includes all enclosed lakes, streams, land and Nabesna, Chisana, and Tanana Rivers included in this area." (35) This description of the subsistence area of the Northway Natives remains accurate to the present day.

The reduction in the area of Native subsistence activities corresponded in time with a general breakdown in the traditional life-style of the Natives. The upper Tanana Indians, in pursuit of food, annually participated in a migratory cycle governed in

part by the migrations of fish and game. As McKennan noted in 1929-30, this cycle can best be described by Chief Sam of Last Tetlin:

In the old days the people seldom stayed in the village. Always they were on the trail, hunting and camping. In July whitefish were dried and cached at the Fish Camp. Then the people went moose hunting, caching the meat. In the winter they visited the caches and then when the caribou came they killed caribou. After the moose season the people went up to the head of the Nabesna to secure sheepskins for winter. Then they would return to the village; make their clothes, and then take the winter hunting trails to Ladue Creek, the Chisana basin, and the White River. In the spring when the leaves were coming out they returned to the village. They would take birch bark and sew it together to make new tents and then wait for the caribou to come back again. (36)

McKennan observed that Chief Sam's description of the Native migrations was accurate for the most part for the years 1929 and 1930. The establishment of trading posts on the Nabesna River resulted, however, in the Indians devoting the winter season to trapping as well as hunting, and the spring season to muskrat shooting in the lakes. Taking these changes into account, McKennan summarized the Native seasonal life as follows: "Fishing at well-known sites in July; moose hunting in the summer; sheep hunting in the fall; then the early winter migration of caribou; then more moose hunting and quite possibly hunger, alleviated somewhat in the late spring by ducks and muskrats; and then again the welcome appearance of the caribou in late May." (37)

Today, McKennan's account appears to be valid for only a portion of the Native population of Northway Village. Beginning in the 1940's, some Natives found employment with the Alaska Road Commission, the Civil Aeronautics Administration, and succeeding agencies. On occasion, they are employed by the BLM to help fight forest fires. (38)

The floodplains of the Chisana and Nabesna rivers remain the traditional hunting, fishing, and trapping grounds of individual Natives of Northway Village. The various lakes and creeks are accessible by land, air, water, or some combination thereof. Perhaps Walter Northway, a centenarian of Northway Village, was not exaggerating when he said, "There are hardly any lakes around here that the people of Northway have not used" (39); but there is little written evidence to confirm the statement. According to BLM records, the following lakes and creeks have been used for fishing, trapping, and hunting purposes. We have taken the liberty to note other uses as well.

1. Damundtali Lake. In 1975, it was reported that some hunting and recreation activities occur on this lake. The lake is accessible from the Alaska Highway by means of a trail, which was constructed in the mid-1970's. Only three persons were using the trail in the mid-1970's. (40)
2. Deadman Lake. Access to this lake is gained by way of the State-maintained Deadman Lake Campground, which is linked to the Alaska Highway by a spur road. Local natives reported that the lake was not used as part of a travel route, but was and is used for muskrat hunting and some fishing. McGee, who inspected the lake by canoe, reported that the lake is used mainly for the purpose of recreation --- motor boating, fishing, water fowl hunting, and swimming. There is also significant float plane use on the lake. (41) In the late 1940's, three men used an airplane to trap this lake. (42)
3. Dog Lake. McGee reported that there was no permanent access to the lake---boats would have to be packed in to the lake. He indicated that use of the lake included muskrat trapping and hunting. (43) According to the Alaska Division of Fish and Game, there has been public recreational (fishing) use of the lake, which has a surface area greater than one square mile and is located within five air miles of Northway Airport. Access to the lake is by float plane. Opposing the State's recommendation for easements for a float plane tie-up and campsite on the lake, Northway Natives, Inc., reported that the lake was used exclusively by Natives for subsistence trapping and fishing. There are campsites on several Native allotments near the lake where people leave their traps and equipment year-round. Reportedly, the Natives "have always kept people out of this area." (44)
4. Eliza Lake. This lake was inspected by McGee in August 1975 on foot. He stated that the lake was inaccessible by vehicle, and that he did not observe developments along the lake. (45) In 1975, the Alaska Division of Lands and the U.S. Bureau of Mines proposed a trail easement from the Alaska Highway to the lake. The proposal was rejected on the grounds that no evidence supporting the claim had been found, and that there was no significant use of the lake for public purposes. It was said that local sportsmen groups did not feel the easement was necessary, nor did the local State and Fish and Game biologist know of any present use of the lake. The trail extends through a Native allotment. (46)
5. Fish Lake (T. 14 N., R. 19 E., C.R.M.). Located near Northway Village, this lake flows into Moose Creek; it has long been used by upper Tanana River Indians during the summer for the purpose of fishing. According to McKennan, a semi-permanent village called "Fish Camp" or "the old village"

was located on a clear-water stream at the lake. From May to July, the Indians would congregate at the fish camp to catch whitefish migrating from the lake to the Tanana River. (47) In 1945, R.L. Jennings may have referred to the camp as the "Old Village," which consisted of tents and two cabins. He noted too that airplanes with pontoons "can land on lake across river from village ½ mile or on river in front of village." (48)

In 1975, McGee traveled about the lake in a canoe. He observed several houses on the north side of the lake near the road, and a float plane docked on the north end of the lake. He stated that the lake permits access for various people, including duck-hunters and fishermen in summer months and fur trappers in the winter. Observing large amounts of aquatic plants on the bottom of the lake in most areas, he believed that the lake offered good fishing opportunities. He also stated that some very small pockets of commercial-size timber were accessible by this lake. (49)

Also in 1975, the Alaska Division of Fish and Game proposed a boat ramp easement at the lake. The ramp would provide access to the lake and other shallow lakes in the vicinity. The lake is a primary duck hunting lake in the Tok area. According to a local biologist of the Alaska Division of Fish and Game, the lake is shallow, and provides duck hunting opportunities whereas other lakes in the vicinity are deeper and do not produce puddle duck hunting. Commenting on the proposed easement, Northway Natives, Inc., stated that the proposed site was a "dump" and that hunting activities on the lake endangered the lives of local residents around the lake. Furthermore, the lake was too shallow and weedy for boat and motor traffic, and thus was not considered navigable. In past years, the corporation claimed, boat traffic damaged subsistence fishing structures. (50)

6. Hillside Lake. This lake is not accessible by boat. According to one informant, "I have traveled the Chisana River by motor boat from the Chisana River bridge to Hillside Lake numerous times since I was 3 years old." (51)

7. Mark Creek. According to McGee, who did not visit this creek in 1975, Mark Creek was and is used to hunt muskrats; and may be used for fishing. In high water, the creek has also been used as a travel route by people in canoes and small boats, but not to any major extent. (52) In 1975, a local trapper proposed a campsite easement on the east bank of the creek (NE½, Sec. 22, T. 14 N., R. 19 E., C.R.M.). Northway Natives, Inc., responded that Mark Creek was not a significant creek or waterway, that it was used only by local Natives. (53)

8. Moose Creek. Following a canoe trip up Moose Creek in 1975, McGee reported that motor boats are currently used up the creek to a point near Northway Airport where the creek crosses the Northway road. Citing Kenneth Albert as his source of information, McGee reported that the creek in Sections 21, 16 and 9, T. 14 N., R. 19 E., C.R.M. can be used at any time of open water. Upstream from that point, the creek is usable by motor boat only during high water. At any other time, the creek is too shallow for motor boats above this point. Jetboats, canoes, and motor boats have been used on the creek. (54) According to Kenneth P. Albert and "several unidentified local natives," the creek was a travel route to Chisana River before the Alaska Highway was constructed. It also served as an alternative route to Chisana River when the Nabesna River was blocked by ice jams or when the river was too high or too low. The lower part of the creek (from Fish Camp to the Chisana River) was and is used for fishing and for trapping muskrats, although to a lesser extent since the Northway Junction Road was built. Canoes can be used on the creek at any time. In more recent times, the creek has also been used for recreational purposes. (55)

The mouth of Moose Creek is the site of winter and spring fishing for burbot and pike. There is also some fishing for grayling after the spring breakup. A trail extends from the Chisana River bridge to the mouth of Moose Creek along the west side of the river. Another trail extends from some point on Moose Creek to Birch Lake; it has been used by one person only for trapping purposes since the mid-1960's. (56)

9. Pullin Lake. In the early 1940's, this lake was used for recreation purposes (swimming), and perhaps as a source of water by military personnel at Northway. Access to the trail was by means of a trail. In later years, the lake was used as a garbage dump. The trail extends through a Native allotment. There is no significant public use of the lake at present. (57)

10. Raspberry Lake. In 1975, a trapper proposed a trail easement from the Alaska Highway to this lake, where muskrat hunting occurs. Both the Native Corporation and the State of Alaska did not consider the lake navigable. The BLM, noting that the lake was less than one acre in area, did not find evidence of significant public use of the lake. (58)

11. Skate Lake. Located adjacent to Northway Village, this lake is used by people in canoes, motor boats, and float planes. According to one informant at Northway Village, "... many float planes land on Skate Lake. Gas from Airport is driven down to them or the pilots walk to Airport to get gas and then ride back to their plane." (59)

12. Steve Lake. This lake is accessible from Chisana River, apparently by land as one individual recommended a trail easement from the river to the lake in 1975. The lake has been used for muskrat hunting for many years. There are several camps located around the lake. (60)

13. Tenmile Lake. According to McGee, the lake is inaccessible except by foot or by way of Chisana River. Muskrat hunting, fishing, and netting of fish occurs in or near the lake. Walter Northway's home is located to the north of the lake. His allotment is accessible by trail from the Alaska Highway, northwest of Tenmile Creek. (61)

14. Thadlthamund Lake. In 1975, a trapper proposed a trail easement to this lake, which has a surface area of less than one square mile. The BLM noted that public use of the trail or the lake was not significant. Trapping may occur on or near the lake. (62)

15. Tontethaimund Lake. McGee made a reconnaissance survey of the south and east sides of this lake in 1975, having gained access to the lake by land after taking a canoe up Moose Creek to a nearby pond. He stated that the lake was inaccessible by boat without portaging --- apparently from Moose Creek. He observed several abandoned Native houses near the lake as well as a cemetery about 100 yards from the south side of the lake (in Section 20). Citing Kenneth Albert of Northway Village as his source of information, McGee stated that the lake has been used by people in canoes, boats, and float planes (since the 1930's). Muskrat hunting and fishing occurs on the lake. (63)

16. Tsilchin Lake, Tlocogn Lake, Fish Camp Lake, Louie Lake. Trapping apparently occurs on or near these lakes. In 1975, two individuals proposed a series of trapline trails from Riverside Lodge on the Alaska Highway to Tsilchin Lake, Tlocogn Lake, Fish Camp Lake, then west to Louie Lake and Tetlin Village or northwest down the Kalutna River to the Tanana River. (64)

17. Unnamed Lake (Sec. 3 and 4, T. 13 N., R. 20 E., C.R.M.). According to McGee, who reached the lake by land, this lake is locally referred to as "Horshoe Lake." Located about 0.5 mile from the Alaska Highway, the lake is inaccessible by boat or vehicle. McGee referred to Kenneth Albert as his source of information that the lake is used for muskrat hunting. (65) In 1975, the Alaska Division of Fish and Game and a certain Dave James proposed a trail easement from the Alaska Highway to the north end of the lake, as well as a shore easement for boat launching purposes. According to BLM records, Northway Natives, Inc., did not know of any use of the trail except as a private trapline. A local State Division of Fish and Game biologist, in a telephone conversation, could not identify any significant use on this lake and others along the Alaska Highway in this area. (66)

18. Unnamed Lake and Channel System (Sec. 21 and 28, T. 14 N., R. 19 E., C.R.M.). Flowing into Moose Creek; this lake becomes a series of channels in marsh in low water. A bridge on the Northway Junction Road crosses the outlet of the lake where it flows into Moose Creek. According to McGee, the lake is shallow, but usable by canoe or motor boat "most of the time." Several fish camps are located around and between this lake and Fish Lake. These camps are known as Charlieskin Village and Kathakne. Fishing with nets, muskrat trapping and hunting occurs on the lake and channels. There is a fish trap in the lake outlet. McGee inspected the lake and channel system by canoe. (67)

19. Unnamed Lake (Sec. 23, 24, 25, 26, T. 14 N., R. 18 E., C.R.M.). According to statements by Natives of Northway, this lake is used by them in small boats and canoes for hunting muskrats. (68)

Walking to the south end of the lake in 1975, McGee noted that canoes and small boats were used on the lake; and that the Natives used the lake to hunt muskrats. The Northway (Native) cemetery is on a hill overlooking the lake. (69)

20. Unnamed Lake (Sec. 14, 15, 22, 23, 24, 26, T. 14 N., R. 19 E., C.R.M.). According to McGee, this lake is referred to as "Sucker Lake" by local Natives. The Natives annually use the lake for muskrat hunting and fishing. There is a fish camp on the lake. (70)

In 1975, a trapper proposed a trail easement through Sections 15 and 16, T. 14 N., R. 19 E., C.R.M. from the Northway Junction Road to unnamed lakes in Section 15. The trail provided access to a lake in Section 15 and to the sloughs and lakes to the east. The BLM decided that the proposal was unwarranted, in view of the fact that access to the lakes and sloughs was available via Chisana River and slough and stream systems, and that it was unlikely that any of the lakes were navigable. Northway Natives, Inc., opposed the easement with the comment that none of the lakes were considered to be navigable. (71)

21. Unnamed Lake (Sec. 5, T. 13 N., R. 20 E., C.R.M.). McGee reported that the Native name of this lake is "Fish Lake." Citing Kenneth Albert of Northway Village as his source of information, McGee wrote that the lake is used for muskrat hunting. (72) In 1975, it was reported that a trail extended from the Alaska Highway (NE $\frac{1}{2}$, Sec. 3, T. 13 N., R. 20 E., C.R.M.) southwesterly to a trapping area in Dog Lake vicinity. The trail was used by one trapper only. This trapper may have trapped this lake since his trail passes near the lake. (73)

22. Unnamed Lake (Sec. 33 and 34, T. 14 N., R. 20 E., C.R.M.). Located about 0.25 mile from the Alaska Highway, this lake is

accessible by land. Muskrat hunting reportedly occurs on the lake. McGee visited the lake in 1975, and found no improvements along the lake. (74) Also in 1975, the Alaska Division of Lands proposed an easement from the Alaska Highway to the lake in order to provide access to public waters. However, no significant recreational values about the lake were known. Local sportsmen did not identify it as a recreational water body. (75)

23. Unnamed Lake (Sec. 29 and 30, T. 14 N., R. 20 E., C.R.M.). Visiting the lake in 1975, McGee did not find improvements along the lake. He noted that the shallowness of the lake as well as tree stumps in the lake would prove to be obstructions to navigation. (76)

24. Yarger Lake. Historically, this lake has been used for subsistence fishing and muskrat trapping. Accessible by land from the Alaska Highway and a State wayside and campground, the lake is heavily used by tourists and other people for light motor boating, canoeing, fishing, and swimming. One resident of Tok reportedly has trapped muskrats and hunted ducks on the lake for several years. There is also significant float plane use on the lake. (77)

D. Communities

Because the upper Tanana Indians were primarily engaged in subsistence activities, and thus required to make seasonal journeys to favorite hunting, trapping, and fishing camps, the Indian communities in the Nabesna and Chisana river valleys were occupied only intermittently. When McKennan visited the area in 1929-30, he mentioned villages at Cross Creek, Last Tetlin, Tetlin, and Nabesna. He emphasized the point that none were occupied continually throughout the year: "Tetling (sic), the most permanent of the group, was not occupied in the aggregate more than four months out of the twelve, while Cross Creek Village was entirely deserted some years, as it was in 1929." (78) Fifteen years later, R.L. Jennings would also note the seasonal occupation of the villages, describing Northway Village as a place of 17 homes which were occupied only seven months of the year. In the meantime, the people were at trapping, fishing, and hunting camps. (79)

White communities in the upper Tanana area include Reliance City, Gasoline City, Chisana, Nabesna, and Northway. At the present time, only Northway warrants the designation of community, the other non-Native towns having long since been abandoned.

A description of each settlement in the Nabesna and Chisana river valleys follows:

In February 1908 a U.S. Geological Survey party reported the location of "Sargent's Cabin" on Camp Creek and an Indian village at the mouth of Cooper Creek. (80) The cabin was the home of D. C. Sargent, who represented Henry Bratnober in a number of mining claims in the Nabesna River valley. According to McKenna, a band of 16 Indians, including men, women and children, had a winter camp near the mouth of Cooper Creek. An earlier village was located on the Nabesna River two miles upstream, also on the east bank of the river. The original village was on the west bank of the river, at the mouth of Platinum Creek. (81)

Nabesna, a mining town, is located near Jacksina Creek. The town was founded in the late 1920's when mining of lode gold near White Mountain began. The town is presently abandoned. Near Orange Hill, a copper-mining community was reportedly founded in the early 1970's. (82)

Northway, a former Army Air Corps station, was founded in 1942 with the construction of an aviation field and facilities for 13 officers and 140 enlisted men. (83) After World War II, the Civil Aeronautics Administration maintained the station. Now maintained by the Federal Aviation Agency, the station is an important air base in eastern Alaska.

Nabesna Village, located about six miles above the mouth of Nabesna River, on the west bank, is probably one of the oldest Indian villages on the river. The village may have been called "Khiltats" in 1907. Early trading posts of Northway, Newton, Hajdukovich, Kessler, and others may have been located near the village. In 1945, the population of the village consisted of 96 Indians and one non-Native. (84) The village may have been moved to Northway Village in 1947, perhaps due to Nabesna River floods. (85)

Charlieskin Village and Kathakne, locally referred to as "Fish Camp," are located near Fish Lake in the lower reach of the Nabesna River. The U.S. Geological Survey reported the local names in 1954 and 1955, respectively. (86) In 1930, McKenna reported the existence of the summer camp as "Fish Camp," or as it was referred to locally, "the old village"; he believed that the settlement was older than the village which had developed near the two trading posts near the mouth of the river, but observed too that it had "every appearance of being relatively recent." (87) Each year, from May to July, Indians occupied the camp to catch whitefish and other fish which migrated from the lakes into the main river. (88)

Reliance City was located on the Tanana River, a few miles below the mouth of Nabesna River. The town was founded in

1913 when the steamboat Reliance, unable to proceed up the Nabesna or Chisana rivers, landed passengers and freight there. The town was virtually abandoned by October 1914, when only two people remained at the place. (89)

Following a survey of Nabesna River by helicopter in July 1974, representatives of Grumman Ecosystems Corporation reported the existence of hunting and mining settlements near the headwaters of the river. Several cabins and lodges were located on the Nabesna Road along Jack Creek. No cabins or camps were observed on the river below the mouth of Jack Creek. Improvements in the lower reaches of Nabesna River were confined to the last 10 miles of the river, where Northway, Nabesna Village, and Northway Indian Village are located. (90)

On Chisana River, settlements have been located on Chathenda Creek, Gardiner Creek, Cross Creek, and near Scottie Creek. Chisana, a mining community, is located in the headwaters of the river, near Chathenda Creek. The town was established in 1913 during the Chisana gold rush. At the height of the rush, the population of the town was about 300. Perhaps less than half that number remained in the town during the winter of 1913-14. In 1964, the place had a summer population of about five. (91)

In the 1920's, a trading post was established on Gardiner Creek. Herman Kessler, who operated the post, traded primarily with the Scottie Creek Indians.

Located about six miles below Scottie Creek, Gasoline City was founded in 1913 as stampeders ascended the Chisana River to the new strike at Chisana. In October 1913, the town had a population of about 150. (92) The place was probably abandoned shortly after the Chisana gold rush.

A U.S. Geological Survey party in 1908 and McKenna in 1930 reported the existence of an Indian community on Cross Creek, opposite the mouth of Notch Creek, where a few families had their winter houses. The winter village was inhabited by the same Indian band that had a winter village on the upper Nabesna River. The village was moved to Nabesna Village or Northway Village in 1951. (93)

In July 1974, representatives of Grumman Ecosystems Corporation surveyed the entire river by helicopter. With the exception of Chisana and developments along the Alaska Highway, no cabins or campsites were observed on the Chisana River. (94)

E. Water Transportation

Regular freight boat traffic on the Nabesna River has been limited to the lower reaches. From the late 1900's to the 1940's, traders supplied their posts near Nabesna Village by boat. In the early 1940's, with the construction of an aviation field at Northway, small river boats of 45-ton capacity ascended Tanana River from Big Delta to the Nabesna River, and then up the Nabesna River approximately seven miles to the Northway garrison. (95)

There is no history of regular freight boat traffic on the Nabesna River above Northway. Moreover, there is no evidence that freight boat traffic on this stretch of the river is even possible. In 1905 and again in 1913, miners tested the river as a steamboat route to prospects in the headwaters, and each time met with failure.

The first attempt to ascend the upper Tanana River and the Nabesna River in a steamboat occurred in the fall of 1905. Having prospected the headwaters of the White and Copper rivers with some success in past years, Henry Bratnober, a mining engineer, decided to investigate the Tanana River as a practicable route to the north Wrangell Mountains, and in 1905 had the steamboat Ella built at Whitehorse, Canada, especially for the trip. (96) Accompanied by Carl F. Whitham, D. C. "Bud" Sargent, George C. Wilson, and other prospectors on the Ella, Bratnober ascended the Tanana River to the Nabesna River, and then ascended the Nabesna River for a distance of 10 to 15 miles. The prospectors then disembarked, and waited for winter when they would be able to transport their outfits over the river ice to Camp Creek. (97)

The Bratnober party subsequently prospected on the Nabesna and Chisana rivers, and discovered copper near the head of the Nabesna River which they developed to a limited extent in 1906, 1907, and 1908. There is no evidence, however, that Bratnober or his associates attempted to ascend the upper Tanana River or the Nabesna River again. According to George C. Wilson, prospectors representing Bratnober reached the Nabesna River claims by following the Gulkana-Chisana trail, a branch of the Valdez-Eagle Trail. (98)

The success of the Bratnober party in locating copper on the Nabesna River attracted other prospectors to the area. Most entered the country by way of the White River, the McCarthy-Chisana trails, or the branch trail of the Valdez-Eagle Trail. Only a few took the Tanana River-Nabesna River route. Those who did take the river, chose not to take it again when the opportunity presented itself. One prospector named Walter Fisher had such an opportunity. In 1905, Fisher portaged from the Fortymile River to Tanacross on the Tanana River. At Tanacross, a major stop on the Valdez-Fairbanks Trail, he obtained a poling boat and ascended the Tanana

River to the Nabesna River. Whether Fisher ascended the Nabesna River in the poling boat or simply took the Nabesna River trail is not known. In any case, he spent the summer of 1905 prospecting in the headwaters of the Nabesna and Chisana rivers. In 1907, Fisher returned to the upper Tanana River area, but this time took a different route. He ascended the Tanana River on the steamboat White Seal to Tanacross, and then took the Valdez-Fairbanks Trail to Mentasta. From Mentasta, he followed the branch trail to the headwaters of the Nabesna River. (99)

Following the ascent of the Bratnober party on the Ella in 1905, the upper Tanana river witnessed little boat traffic. During the late 1900's and early 1910's James Northway made about five trips upriver on the Tekin, carrying each time more than six tons of freight to isolated trading posts on Healy River and Nabesna River. (100) Few prospectors were willing to ascend the swift Tanana River before the Chisana gold rush. As one newspaper observed:

Every year a few prospectors have been taking out grubstakes, by sniping along the rim rock. The great expense of getting outfits in the country made extensive prospecting or the sinking of holes to bedrock any distance prohibitive....to pole up such a swift river as the Tanana from Fairbanks has been a task too difficult and expensive to attract many prospectors. (101)

The Chisana gold rush of 1913 would, however, change that situation radically. An hitherto isolated and little known area would be swarming with prospectors.

The Chisana rush sparked the first serious attempt to establish boat traffic on the upper Tanana River. Alerted to the possibility that the Chisana district might prove rich, several transportation companies and many individuals set out from Fairbanks to the new strike in sternwheel and sidewheel steamboats, gasoline launches, and poling boats. Perhaps as many as 300 people left Fairbanks for Chisana in July, August, and September 1913. Some ascended the river in their poling boats and launches; and some took passage on the commercial carriers of the Northern Navigation Company and the American-Yukon Navigation Company. In that case, the prospectors paid a \$100 fare and agreed to cut wood for the steamboats. Freight rates were \$250 to \$350 per ton with a limit of 1,000 pounds per man. (102) In return, the companies promised to transport the prospectors and their outfits upriver as far as possible.

Of the 21 boats, excluding poling boats, that are known to have left Fairbanks for Chisana in the summer and fall of 1913, only four --- the Reliance, the Tetlin, the Marathon, and the Mabel --- reached the confluence of the Nabesna and Chisana rivers. Four and perhaps six steamboats, namely the Tana, the Samson, the S & S, the Martha Clow, and possibly the Zodiak, and the Shushana, proceeded upriver above Tanacross before forced into winter quarters. (103) The remainder wintered at lower river points or returned to Fairbanks. Once it was learned that the Chisana district was not as rich or extensive as first supposed, the steamboats on the upper Tanana River returned to Fairbanks in the spring and summer of 1914.

Leaving Fairbanks on August 6, 1913, and arriving at the mouth of the Nabesna River on August 16, the Northern Navigation Company's Reliance, reputed to be "the best shallow water boat in Alaska," (104) was one of the few steamboats to reach the headwaters of the Tanana River from Fairbanks during the gold rush. Considering the mouths of the Chisana and Nabesna rivers as unnavigable for steamboats, the officers of the Reliance discharged 56 passengers at the mouth of the Nabesna River. The majority of the passengers chose to ascend the Chisana River in poling boats. But about 20 passengers, anxious to reach the diggings before all claims were taken up, decided to take a trail from the Nabesna River to the Chisana River. Tetlin Indians had advised these stampeders that they could go up the Nabesna River and across to the Chisana River on foot in three days, while it would take five days to pole a boat up the Chisana River. Those who took the overland route followed the Nabesna River for about seven miles, crossed over to the Chisana River by way of the Black Hills, and then followed the Chisana River to Chisana. (105)

The officers of the Reliance had indicated that it was impossible for steamboats to enter the mouth of the Nabesna River, and that even poling boats would have a difficult time. Prospectors in poling boats and one steamboat did, however, ascend the Nabesna River in 1913. Leaving Fairbanks on July 29 with a party of 18, Captain Northway reached the Nabesna River with the launch Tetlin in early August. Advised by men returning from Chisana that it would be impossible for the Tetlin to proceed up the Chisana River, Northway decided to try the Nabesna River. The Tetlin ascended the river for a distance of 25 to 35 miles before running onto a gravel bar. The crew subsequently abandoned the steamboat for the winter, while several passengers traveled overland to the Chisana diggings. (106) Northway himself prospected awhile on Stuver Creek, and then went to Chisana. In early October 1913, he took the winter trail to McCarthy and the railroad to Cordova, where he announced his intention to go to Seattle and purchase machinery for winter mining at Chisana. (107) Several prospectors, who descended

the Nabesna river in small boats, reported the Tatlin "hopelessly high and dry" on a gravel bar, but in good condition. (108)

Although there are recorded instances of prospectors leaving the Chisana district in small boats on the Nabesna River in 1913, the record does not indicate whether these prospectors actually ascended the river in the boats or, as was commonly done in other gold rushes in Alaska, constructed the boats at the head of the river and then lined or floated the boats down the river. There is, however, one documented case of three passengers of the Reliance who ascended the Nabesna River in a poling boat. Frank Lawson, Jack Biglow, and J. C. Wood ascended the river "with great difficulty" as far as Sargent's cabin on Camp Creek. Landing the boat, the three men began to pack over the divide to the Chisana River. But before reaching the diggings, they met another party from the Reliance who told them of poor conditions at Chisana. The Lawson party thus returned to Fairbanks. (109)

The cases of the Ella, the Tatlin, and several poling boats represents the extent of freight boat traffic on the Nabesna River above Northway in the period 1898-1913. With the development of land transportation facilities in the headwaters of the river after 1913, use of the Nabesna River as a travel route became unnecessary. Today, traffic on the river consists of hunters, trappers, and fishermen in canoes, small boats, and rubber rafts.

According to Jerry W. McGee of the BLM, who visited Northway in 1975, the Nabesna River is used by Natives in connection with subsistence activities. Historically, the Natives have hunted and fished on the river "clear to the accessible headwaters," and supplied small villages and fish camps by boats on the river. At the present time, he observed, the river is used for the purpose of subsistence (fishing and muskrat trapping) and recreation. (110) Native traffic on the Nabesna River appears to be limited to that stretch of the river below the Black Hills. In June 1975, Robert L. Jenks of Doyon, Ltd., provided the BLM with eight statements made by residents of Northway Village concerning their use of certain water bodies. (111) Collected by Northway Natives, Inc., these statements include relevant information with respect to Nabesna River. In their own words:

I have...been, by motor boat, up the Nabesna River for hunting many times....I can remember, before the Alaska Highway was built, a store owner at Northway, Herman Kessler, hauled his supplies from Fairbanks to Northway by inboard motor boat. (112)

I have traveled by 12' boat and 10 HP motor up the Nabesna River in the falls of 1973 and 1974 to hunt. I have ascended approximately 21 air miles above Northway Village. I made two trips each year all at least as far as the Black Hills. One trip we met a 16' boat above the Black Hills. I plan to continue these activities while at Northway. (113)

I have been traveling up Nabesna River by motor boat for the last 28 years, about 35 miles (river miles) up. (114)

I have traveled down Nabesna River from Northway Village and up the Chisana River.... (115)

I for myself & other elders that still live here in Northway, have used the Nabesna River for many years. It was our way of getting to and from places: Tetlin, Tanacross and also to Nabesna Village. To get to Tetlin, Tanacross or Delta Area, we have to go down Nabesna River to get to Chisana River. (116)

Unlike the Nabesna River, the Chisana River has a long history of freight boat traffic. A trading post near Gardiner Creek was supplied by boats during the 1920's and 1930's. During the Chisana gold rush of 1913, a large number of people ascended the river as far as Chathenda Creek in poling boats. According to Stephen R. Capps of the U.S. Geological Survey:

On the circulation of the report that rich placer discoveries had been made in the Chisana basin, a considerable number of men made their way up Tanana and Chisana rivers by launches and small boats. Under favorable conditions launches may be taken up these rivers as far as the north front of the Nutzotin Mountains, and boats were lined or poled all the way up to the mouth of Chathenda Creek. The route from Fairbanks, the base of supplies, is, however, long and difficult and, although possible, will never be an economical route for bringing in supplies. In the fall of 1914, many persons availed themselves of this water route, and built boats in which they rowed downstream to Fairbanks. (117)

One launch, the Marathon, was frequently used to transport passengers and their outfits from Reliance City to Gasoline City in the fall of 1913. As the gold rush waned, the owners returned the launch to Chena in October 1913. A steamboat, the Mabel, reportedly wintered on the Chisana River about 60 miles from its mouth; it too returned to Fairbanks, in May 1914. (118)

In recent times, the Chisana River is heavily used by Natives of Northway Village. In 1975, many residents of Northway

Village reported their use of the Chisana River in boats.
Their statements are as follows:

I was born on the Chisana River near the mouth of Gardner (sic) Creek when my family and other people from Northway were hunting. Since then I have traveled the Chisana River many times a year by motor boat, going all the way to the mouth of Scotty (sic) Creek. (119)

I have...traveled up the Chisana River, about 90 river miles up, starting at Northway Village. Every year most of my life we go up Chisana River by motor boat, many times past mouth of Mirror Creek. (120)

I have traveled down Nabesna River from Northway Village and up the Chisana River to our house at 10-Mile, a house at Stuver Creek, to a camp and house at the mouth of Gardner (sic) Creek, every year for over 50 years by motor boat.... The only way we could get supplies to our camps was by river boat in the early 1900's.... We hunt moose every year up the Chisana River all the way to Gardner (sic) Creek. We still use the Chisana River to transport supplies & food to our various houses and camps.... I am 72 years old. I have traveled the Chisana River with my husband and family. (121)

Every year I have traveled up the Chisana River, all my life. My family has lived at 10-Mile camp year around when I was young. The river was the only way to get food and supplies up there.... I still travel the Chisana River. I have a 40 acre Native allotment near 10-Mile camp. The river is still the only way we get supplies up there. (122)

I have traveled up the Chisana River by motor boat many times a year, all my life. With my folks when I was small. For fishing and hunting. I have been up further than the mouth of Scotty (sic) Creek.... I have helped other people haul supplies up to camps and cabins along the river. (123)

I have traveled the Chisana River by motor boat from the Chisana River bridge to Hillside Lake numerous times since I was 3 years old. I am now 26 years old.... My family has a house at 10-Mile which is used at various seasons of the year.... We carried supplies and food by river boat on the Chisana River to the house at 10-Mile numerous times. (124)

I have traveled up Chisana River by river boat all my life, first with my folks and later by myself and with my

family, for hunting, hauling supplies to our camps and our house at 10-Mile. We also go up river to stay at our fish camp. We go up much further than the mouth of Scotty (sic) Creek. (125)

F. Land Transportation

The upper Tanana River is presently served by two primary roads: the Glenn Highway and the Alaska Highway. The Nabesna Road extends from Slana on the Glenn Highway to the Nabesna Mine near the headwaters of Nabesna River. The Northway Junction Road extends from Northway Junction on the Alaska Highway to Northway Village near the mouth of Nabesna River.

Before the construction of the Alaska Highway and the Glenn Highway in the 1940's, the upper Tanana River area was generally reached by miners by way of three routes: the White River route, the McCarthy route, and the Gulkana route. All three had been traversed and mapped by the Geological Survey in the 1890's and 1900's. In 1891, Dr. C. W. Hayes and Lt. Frederick Schwatka entered the area by way of the Yukon and White rivers, and left by way of Scolai Pass and the Chitina River. In 1898, Alfred H. Brooks and William Peters also entered the area via the White River route, but then descended the Chisana and Tanana rivers to Tanacross on the Valdez-Eagle Trail. In the following year, Brooks and Peters returned to the area, again taking the White River route but leaving by way of Nabesna River and the Tanana River. In the same year, Oscar Rohn reached the area by way of Chitina River and Nizina Glacier; he then crossed the heads of Chisana and Nabesna rivers to the upper Copper River. Finally, in 1908, F. H. Moffit entered the area from the headwaters of the Copper River, and left by way of Scolai Pass and Chitina River.

During the 1900's and 1910's, the White River was the customary route for prospectors and miners bound for the heads of the White and Chisana rivers. Many prospectors from Dawson and Whitehorse ascended the White River as far as the Donjek River, and then followed one of several trails to the mining section. If freight was to be taken into the section, the miners generally took the government-constructed wagon road from Whitehorse to Lake Kluane, where several trails led into the mining section. The Geological Survey believed this route to be the most practicable if freight was to be taken into the mining section: "The trail from White Horse is probably the easiest and best way of reaching either the White or the Nabesna with stock in summer if ease of traveling is considered." (126) According to one 1912 report, between 80 and 90 tons of freight were transported annually on the White River route at an average cost of 25 cents to 35 cents per pound. (127) In the winter of 1912-13 the Scolai Mining Company transported three tons of copper to the smelter

since 1913, under the direction of the Alaska Road Commission in 1929. (146) Another aviation field is located near Orange Hill, near the site of recent copper-mining operations in the headwaters of Nabesna River. The third aviation field, located at Northway, was originally 350-by-5,300 feet. Two years later the Civil Aeronautics Administration extended the field to 7,500 feet and paved the runway. The field was suitable for cargo transport airplanes. (147) At the present time, the airport is used for all airplane traffic in the area. (148)

In 1929-30, the Alaska Road Commission supervised Gus Johnson in the construction of an aviation field near the Nabesna Mine. This field was used by pioneer aviator Bob Reeve in the early 1940's to transport equipment from Nabesna Mine to Northway. Reeve was contracted by Morrison-Knudsen Company, which had a contract with the Civil Aeronautics Administration to improve the Northway field, to transport equipment by airplane to Northway. The equipment was transported from Valdez to Nabesna, then loaded on wagons and hauled by cat tractors over five miles of muskeg to Reeve's river bar landing field. In a five-month period, Reeve transported 300 people and 1,100 tons of equipment by airplane from the river bar to Northway. (149)

Small aircraft with pontoons have reportedly landed on the Nabesna River near Northway and on the Chisana River near Gardiner Creek. One airplane made a forced landing in Jacksona Canyon in 1933; it was subsequently hauled about 20 miles to a point near the Nabesna Mine by a four-horse team. (150) Small airplanes are known to have landed on Gasoline Lake, Dog Lake, Deadman Lake, Fish Lake (near Northway), Skate Lake, Tontethaimund Lake, and Yarger Lake.

III. CONCLUSION

For nearly three decades after the Klondike Gold Rush of 1897-98, the upper Tanana River area was truly one of the most inaccessible areas in eastern Alaska. Beginning in the late 1890's, a few prospectors and traders reached the area by way of four principal routes: the White River route, the McCarthy route, the Tanana River route, and the Gulkana route. From the late 1900's to the late 1930's, the upper Tanana River was primarily used by traders from Fairbanks to supply stores on Tetlin River, and on the lower Nabesna and Chisana rivers. During the Chisana gold rush of 1913, several hundred prospectors ascended the Tanana River to its head in small steamboats, launches, and poling boats. The stamperders proved that the upper Tanana River, while navigable for shallow-draft boats, was not a practical route to the Nabesna and Chisana rivers. The Chisana mining camps were too distant from Fairbanks; the upper Tanana River too swift and treacherous; and the Chisana diggings neither rich nor extensive for the establishment of regular boat service on the upper Tanana.

River. The transportation companies and the miners thus left the upper Tanana River to the fur traders.

Therein lies the significance of the Chisana gold rush of 1913. Finding the Tanana River impractical, miners on the northern slopes of the Wrangell Mountains were forced to rely upon the White River route, the McCarthy route, and the Gulkana route in gaining access to and in leaving the mining district. None of these routes were suitable for the development of mining in the headwaters of the Tanana River. All were nothing more than crude trails in the wilderness; all required traveling 100 miles or more from major towns to the site of the mining operations. The White River route was probably the most feasible of the three; but the collection of duties on the International Boundary made that route unpopular. The McCarthy-Chisana summer and winter trails were the shortest routes to the mining section; but travel on both trails was very dangerous. Aside from the problems of crossing turbulent glacier streams, travelers on the summer trail often found the Scolai Pass blocked by deep snow in the spring and early summer and the winter trail had to be rehabilitated each year as a result of glacier movement. These shortcomings would eventually lead to the improvement of the Gulkana trail.

The development of transportation facilities in the Copper River region favored the ultimate improvement of the Gulkana trail. The completion of the Copper River and Northwestern Railway in 1911 and the construction of the Chitina-Copper Center road permitted railway access to the ice-free port of Cordova. The improvement of the Richardson Road for wagon traffic in the 1910's and motor traffic in the 1920's resulted in lower freight transport rates. With the construction of aviation fields on the upper Nabesna and Chisana rivers in 1929-30, and the construction of the Nabesna Road in 1929-33, mining in the upper Tanana River area was given new life, as evidenced by the operations of the Nabesna Mining Corporation in the 1930's and 1940's.

Following the construction of the Nabesna Road, it was only a matter of time before the upper Tanana River would also be linked by road to southern ocean ports. World War II, however, hastened the day. With the construction of the Alaska Highway to Fairbanks, and the Glenn Highway to Anchorage, the upper Tanana River was at last made accessible to markets at Valdez, Anchorage, and Fairbanks. And the construction of the Northway aviation field brought the modern air age to the upper Tanana River area.

The history of mining and transportation in eastern Alaska explains why the upper Tanana River never became a major thoroughfare, but it does not fully explain why the Chisana River and not the Nabesna River witnessed freight boat traffic.

To find the answer, one must look to the physical characteristics of the two rivers. It would be improper to say that the two rivers have the same physical characteristics. The degree of similarity actually goes no farther than the fact that both rivers have their origins in glaciers; that both exhibit similar flow characteristics according to the seasons, and in summer months, according to daily weather conditions; and that both are braided in the mountain section. Otherwise the rivers are quite unique. The Nabesna River exhibits a braided character throughout its course above Northway; the Chisana River has a well-defined channel from its mouth to a point near Scottie Creek. Below the Nutzotin Mountains, the Nabesna River descends 43 miles at an average rate of 6.5 feet per mile; the Chisana River descends 61 miles at an average rate of 3.2 feet per mile. The Nabesna River has been described as "swift"; the Chisana River, as "sluggish."

Taking these considerations into account, it becomes clear why one river and not the other was used as a freight boat route. During the Chisana gold rush, a large number of stamperders ascended the Chisana River in poling boats as far as Scottie Creek, and some lined or poled boats to Chathenda Creek. At least one party took advantage of the rush to transport freight and passengers in the launch Marathon from the mouth of the river to a place near Scottie Creek. During the 1920's and 1930's, traders Hajdukovich and Kessler ascended the Chisana River in freight boats to Gardiner Creek and possibly to Scottie Creek. In more recent times, Natives have ascended the river in small boats as far as the foot of the Nutzotin Mountains.

In the case of the Nabesna River, the historical record reveals some freight boat traffic to trading posts near Nabesna Village from the 1900's to the 1930's, and to Northway during the early 1940's. For points beyond Northway, the historical record indicates several attempts to ascend the river in launches, at least one successful effort to ascend the river in a poling boat, and several prospectors leaving the mining section in boats. All in all, the record suggests that the river above Northway is suitable for small boat traffic only. In 1905, Henry Bratnobar ascended the river in the steamboat Ella for a distance of 10 to 15 miles. In 1913, James Northway ascended the river in the launch Tetlin for a distance of 25 to 35 miles. Also in 1913, a party of prospectors ascended the river "with great difficulty" in a poling boat as far as Camp Creek. The Bratnobar and Northway cases illustrate the unsuitability of the Nabesna River for small steamboat traffic. The 1913 case of a poling boat ascending the river suggests that the small freight boat traffic on this stretch of the river is possible, but not practical.

In view of the great many opportunities for the establishment of freight boat traffic on the Nabesna River, the absence of such evidence is particularly instructive. Before and after the Chisana gold rush, prospectors could have used the Nabesna River to obtain supplies from traders on the lower Nabesna River. In 1942, contractors building the Northway aviation field could have transported personnel and equipment to the construction site in boats. In every case, however, the opportunities were not realized. The fact that the builders of the Northway field used every established transportation route---the Tanana River, the Nabesna River trail, and the Nabesna Mine and Northway aviation fields---except the Nabesna River itself lends additional weight to the view that the river is not a practical route for the transportation of freight.

The unsuitability of the Nabesna River above Northway for freight boat traffic has some bearing on the question whether the Chisana River above Scottie Creek is also practical for freight boat traffic. For this stretch of the Chisana River has physical characteristics similar to the Nabesna River. We know that the upper Chisana River is swift and braided. We also know that prospectors ascended this stretch of the river in poling boats to Chathenda Creek during the Chisana gold rush. Given our knowledge of the physical characteristics of the upper Nabesna and Chisana rivers, and the difficulty of boat travel on the upper Nabesna River, we may conclude that boat travel on the upper Chisana River is possible but not practical. The possibility of freight boat traffic on the upper Chisana River, especially in the canyon section where the full force of the river is concentrated in a narrow channel and where the stream gradient is exceptionally high over a short distance, confounds the imagination.

The numerous lakes and creeks in the lower reaches of the Chisana and Nabesna rivers have been primarily used for the purpose of hunting, fishing, and trapping. Some of the large lakes near Northway Village and the Alaska Highway have also been used for recreation purposes. Small boats, on the order of canoes, have been used on most of the larger lakes; and small airplanes with pontoons have frequently landed on Fish Lake near Northway, Skate Lake, Yarger Lake, and Deadman Lake. Most of the lakes are accessible only by land.

We have found no evidence in the historical record of freight boat traffic on the numerous lakes and creeks. Moreover, we have found no evidence to suggest that freight boat traffic on these lakes and creeks is possible. All of the lakes and creeks are shallow and small; the lake shores generally consist of marsh; the surrounding country is either hilly or wetland; and most lakes are landlocked. With the exception of Moose Creek and possibly Mark Creek, none of the lakes and creeks

have been used as a travel route. While Moose Creek has been used as a route to Chisana River, its shallow depth, narrow channel, and close proximity to the Northway Junction Road precludes its use for freight boat traffic. The same considerations apply to Mark Creek.

IV. RECOMMENDATIONS

- A. It is recommended that the upper Tanana River, from Tanacross to the confluence of Nabesna and Chisana rivers, be determined navigable on the basis of susceptibility.
- B. It is recommended that the Nabesna River from its mouth to Northway be determined navigable on the basis of susceptibility. It is further recommended that the Nabesna River from Northway to Nabesna Glacier and all tributaries of the Nabesna River be determined non-navigable.
- C. It is recommended that the Chisana River from its mouth to Scottie Creek be determined navigable on the basis of susceptibility. It is further recommended that the Chisana River from Scottie Creek to its head and all tributaries of Chisana River be determined non-navigable.
- D. It is recommended that all lakes and creeks affected by Northway Natives, Inc., selection applications F-14912 A and B under the Alaska Native Claims Settlement Act be determined non-navigable.

FOOTNOTES

1. Charles F. Herbert to Curtis V. McVee, April 16, 1973. Mr. Herbert was then Commissioner of the State Department of Natural Resources. The Water Delineation Maps consist of about 275 protraction diagrams.
2. Unless indicated otherwise, the description of Nabesna River is taken from Grumman Ecosystems Corporation, Report on Navigability of Streams Tributary to the Tanana River, Alaska. Prepared for U.S. Army Engineer District, Alaska, Vol. IV (April 1975), p. 4-469 ff. The Corporation considered the river "boatable" and thus navigable as far as Lick Creek.
3. One source gives the slope of the river as follows: mile 0 to mile 27, 3 feet per mile; mile 27 to mile 61, 11.8 feet per mile; mile 61 to mile 75, 75.7 feet per mile. See J. David Dorris, Surface Water Resources and Development. Anchorage: Joint Federal-State Land Use Planning Commission for Alaska, 1973.
4. Unless noted otherwise, the description of Chisana River is from Grumman Ecosystems Corporation, op. cit., p. 4-489 ff. The Corporation considered the river "boatable" as far as Mirror Creek.
5. U. S. Geological Survey, "Alaska Terrain Intelligence Revised Report. Strategic Engineering Study No. 27." Confidential Study Prepared for Intelligence Branch, Office of the Chief of Engineer, April 1943, Classified Alaska File 9-1-54 Surveys, Records of the Office of the Territories, 1907-51, Record Group 126, National Archives Building, Washington, D.C. The Geological Survey considered the Nabesna River to be non-navigable; it believed that the Chisana River may be navigable for steamboats as far as the "Great Bend," that is near Scottie Creek.
6. Dorris, op. cit., reports the slope of the river as follows: mile 0 to mile 63, 1.3 feet per mile; mile 63 to mile 117, 3.1 feet per mile.
7. Robert E. Wallace, "Cave-In Lakes in the Nabesna, Chisana, and Tanana River Valleys," The Journal of Geology, 56 (May 1948), p. 174.
8. Ibid., p. 178.
9. Ibid., p. 181.
10. McGee prepared "Navigability Field Reports" and "Navigability Investigation Reports" in August 1975 and September 1975, respectively, for each water body described in this report.

All reports are found in File Serial No. F-14912 A and B, Alaska Native Village Selection Applications, Fairbanks District Office, Bureau of Land Management, hereinafter referred to as ANCSA Files. Since each report is referenced by water body name and/or aliquot description, thus making it easy to locate a report on a specific water body, no attempt will be made here to cite each report.

11. F. H. Moffit and A. Knopf, Mineral Resources of the Nabesna - White River District. U.S. Geological Survey Bulletin 379-D (Washington, 1909), pp. 176-177. In 1913, Walter Fisher, a prospector who was in the Nabesna River country in 1905 and 1907, stated that Bratnober's associates worked on Wilson Creek during the season of 1905, and that they last worked on the Nabesna River claims in 1908, when James L. Galen performed assessment work on the claims. (Fairbanks Daily Times, September 6, 1913) Fisher appears to be incorrect. One representative of Bratnober, D.C. Sargent, and two others, remained on the upper Nabesna and Chisana Rivers as late as 1914 and probably later. Heavily interested in Cordova utilities, Bratnober died in California on September 14, 1914, not long after making a trip to Chisana over the McCarthy-Chisana winter trail. He left the district by way of the White River route. (Cordova Daily Alaskan, September 14, 1914, August 1, 1913).
12. F. H. Moffit, Mining in the Northern Copper River Region, Alaska. U.S. Geological Survey Bulletin 943-B (Washington, 1944), pp. 45-46; A.E. Nelson, et al., Reconnaissance for Radioactive Deposits in Eastern Alaska, 1952. U.S. Geological Survey Circular 348 (Washington, 1954), p. 4; Fairbanks Daily News-Miner, July 11, 1978.
13. The two most authoritative accounts of the Chisana gold rush are D.D. Cairnes, "Chisana Goldfields," Bulletin of the Canadian Mining Institute, 24 (February 1914), pp. 31-64, and Stephen R. Capps; The Chisana-White River District, Alaska. U.S. Geological Survey 630. Washington: GPO, 1916. F.H. Moffit's Mining in the Northern Copper River Region, Alaska, cited above, and Geology of the Eastern Part of the Alaskan Range and Adjacent Area. U.S. Geological Survey Bulletin 989-D. Washington: GPO, 1954, summarizes the history of mining on Chisana River and other rivers in the area.
14. Grumman Ecosystems Corporation, op. cit., p. 4-473.
15. "Staff Easement Report: Northway Natives, Inc. Selection F-14912-A and B and Amendments, Doyon Limited Selection F-19155-20," October 10, 1975 (hereinafter referred to as "Staff Easement Report"), ANCSA Files.
16. Fairbanks Daily Times, July 3, 1913, July 8, 1913.

17. Nenana News, October 3, 1922; Larry Demit, "Northway," Alaska Sportsman, 32 (January 1966), p. 23. The Little Delta (71 tons) was built at Fairbanks in 1908 and operated on the Iditarod River. William MacBride, Unpublished manuscript, n.d., in the writer's files.
18. Ramon B. Vitt, "Hunting Practices of the Upper Tanana Athapascans" (unpublished M.A. thesis, 1971), pp. 33, 37, 39; Robert A. McKennan, The Upper Tanana Indians (New Haven, 1959), p. 25; Fairbanks Daily Times, June 24, 1914. Strelic was a participant in the Chisana gold rush of 1913. He sold the steamboat S&S to Newton for the Nabesna River store. The steamboat was built at Iditarod in 1913 for the trip to Chisana. In July 1914, Newton sold the craft to Walter Fisher, Billy Perschinger and S. Van Bibber. The new owners used the small steamboat to transport freight from Fairbanks to St. Timothy Mission at Tanacross. See Fairbanks Daily Times, July 5, 1914, July 30, 1914.
19. Frank Chapados Report, October 24, 1949, File No. 920.2, Records of the Juneau Area Office, 1909-74, Records of the Bureau of Indian Affairs, Record Group 75, Federal Archives and Records Center, Seattle, WA. Chapados was an enforcement agent of the U.S. Fish and Wildlife Service at Fairbanks. He interviewed Kessler at the request of Assistant District Attorney Everett Hepp of Fairbanks. Evidently concerned about the Alaska Game Commission's new regulation prohibiting anyone from trapping in the upper Tanana area unless they had lived in the area for a period of one year, Hepp wanted Kessler's views on the effect that non-Natives had on the Native economy in the past. Kessler thought that the new regulation would prove beneficial; but he attributed the decline of the fur trapping industry to the Native's adoption of white man vices rather than to the activities of non-Native trappers. In a letter dated October 5, 1949, in the same file, Robert O. Werlien of Northway made the same observations. Werlien was employed by the Civil Aeronautics Administration and the Fish and Wildlife Service, at Northway. When he made the statement, he had been a resident of Northway for four years.
20. McKennan, op. cit., p. 26.
21. John Hajdukovich to Ike Taylor, March 29, 1924, File 13/99-1, and Frank Nash to Hawley W. Sterling, March 10, 1928, File 13/99-4, Inactive Records of the Old Alaska Road Commission and the Bureau of Public Roads for Alaska, 1920-58; Records of the Bureau of Public Roads, Record Group 30, Federal Archives and Records Center, Seattle, WA. In the letter to Taylor, Hajdukovich requested the Road Commission's assistance in improving an Indian trail from Tanacross to Tetlin Lake. Nash reported in 1928 that Hajdukovich had already improved the trail as far as Tok River. For information on Hajdukovich's

hunting lodge, see F.H. Moffit, Geology of the Gerstle River District, with a Report on the Black Rapids Glacier. U.S. Geological Survey Bulletin 926-B. Washington: GPO, 1942. Hajdukovich's work on the Tetlin aviation field is reported in the "Annual Report of Fairbanks District, Alaska Road Commission, November 1, 1945 - October 31, 1946," Records of the Bureau of Public Roads, RG 30, Federal Archives and Records Center, Seattle, WA.

22. Alaska Native Service, "Post-War Planning Survey - Northway," File No. 431, Records of the Juneau Area Office, 1909-74, RG 75, Federal Archives and Records Center, Seattle, WA.
23. McKennan, op. cit., p. 26.
24. Thomas D. Williams, "Note to Files," October 30, 1975, ANCSA Files. The freight boats were 30 feet in length, and could hold five tons. There is an unverified report that Lowell purchased Hajdukovich's stores at Tanacross, Tetlin and Nabesna in the late 1920's. (Fairbanks Daily News-Miner, June 11, 1930).
25. Frank Chapados Report, op. cit.
26. Alaska Native Service, op. cit.
27. McKennan, op. cit., pp. 26-27
28. Ibid., p. 38.
29. Frank Chapados Report, op. cit.
30. During the winter of 1913-14, mountain sheep and moose meat brought about 15 cents a pound at Chisana. All other food cost about 40 cents. Cordova Daily Alaskan, January 24, 1914.
31. George Johnson, "Chisana," Alaska Sportsman, 32 (May 1966), pp. 31-33. One of the first resident guides on the North Wrangell Mountains was James Brown, who built a new home near the Nabesna Mine in 1929. The Cordova Daily Times, October 26, 1929.
32. George Johnson, op. cit.; Mike Sopjack, "White River Adventure," Alaska Sportsman, 30 (October 1964), pp. 42-43; 49. The Alaska Sportsman includes several other articles written by hunters describing their adventures in the headwaters of the Nabesna River.
33. Statement of Robert O. Werlien, October 5, 1949; Percy D. Pringle to Area Director, January 19, 1950; Everett J. Wilde to Percy D. Pringle, February 10, 1950, Records of the Juneau Area Office, 1909-74, RG 75, Federal Archives and Records Center, Seattle, WA.

34. George Johnson, op. cit. Johnson's parents went to Chisana in 1956. His father worked on the Chisana aviation field.
35. Alaska Native Service, op. cit.
36. McKennan, op. cit., p. 46.
37. Ibid., p. 47.
38. Demit, op. cit., p. 23.
39. Statement of Walter Northway, May 5, 1975, ANCSA Files. On November 2, 1959, Walter Northway applied to the BLM for a Native allotment (62° 55'18"N, 141° 36'32"W) on Chisana River. In his application, he wrote that he had occupied the land every year since 1896 during the fishing (whitefish and pike) and trapping (muskrat and beaver) season from February 1 to June 30. See his "Alaska Native Allotment Application," November 2, 1959 and Robert J. Coffman's "Land Examination Report," August 19, 1960. File No. 024788, Unpatented, Closed, Lands, Minerals Use and Disposal Case Files of the Fairbanks District Office, 1907-56, Records of the Bureau of Land Management, Record Group 49, Federal Archives and Records Center, Seattle, WA. In his statement of May 5, 1975, Northway claimed that he used to transport supplies by river boat for local traders from Northway Village "to people living along the river all the way up to Scotty (sic) Creek."
40. "Staff Easement Report," ANCSA Files.
41. Jerry W. McGee, "Navigability Field Report [Deadman Lake]," August 6, 1975; "Navigability Investigation Report on Deadman Lake," September 9, 1975; and "Staff Easement Report," ANCSA Files.
42. Statement of Robert O. Werlien, op. cit.
43. Jerry W. McGee, "Navigability Investigation Report on: Dog Lake, Skate Lake, Steve Lake, [and others]," ANCSA Files.
44. "Staff Easement Report," ANCSA Files.
45. Jerry W. McGee, "Navigability Investigation Report....," ANCSA Files.
46. "Staff Easement Report," ANCSA Files.
47. McKennan, op. cit., pp. 17, 18, 62.
48. Alaska Native Service, op. cit.
49. Jerry W. McGee, "Navigability Field Report [Fish Lake]," August 5, 1975, ANCSA Files.

50. "Staff Easement Report," ANCSA Files.
51. Statement of Quana M. Northway, April 16, 1975, ANCSA Files.
52. Jerry W. McGee, "Navigability Investigation Report on Mark Creek," September 9, 1975, ANCSA Files.
53. "Staff Easement Report," ANCSA Files.
54. Jerry W. McGee, "Navigability Field Report [Moose Creek], August 5, 1975, ANCSA Files.
55. Jerry W. McGee, "Navigability Investigation Report on Moose Creek," September 9, 1975, ANCSA Files.
56. "Staff Easement Report," ANCSA Files.
57. Ibid.
58. Ibid.
59. Statement of Roy F. Sam, May 7, 1975, ANCSA Files. See also "Navigability Investigation Report...", and Statement of Della May Northway, May 6, 1976, ANCSA Files.
60. "Staff Easement Report" and "Navigability Investigation Report...", ANCSA Files.
61. "Staff Easement Report" and "Navigability Investigation Report...", ANCSA Files.
62. "Staff Easement Report," ANCSA Files.
63. "Navigability Investigation Report...", ANCSA Files.
64. "Staff Easement Report," ANCSA Files.
65. "Navigability Investigation Report...", ANCSA Files.
66. "Staff Easement Report," ANCSA Files.
67. Jerry W. McGee, "Navigability Field Report," August 5, 1976 and "Navigability Investigation Report on Unnamed Lake and Channel...", ANCSA Files.
68. Statement of Della May Northway, May 6, 1975, and Statement of Walter Northway, May 5, 1975, ANCSA Files.
69. "Navigability Investigation Report...", ANCSA Files.
70. Ibid.
71. "Staff Easement Report," ANCSA Files.

72. "Navigability Investigation Report....," ANCSA Files.
73. "Staff Easement Report," ANCSA Files.
74. "Navigability Investigation Report....," ANCSA Files.
75. "Staff Easement Report," ANCSA Files.
76. "Navigability Investigation Report....," ANCSA Files.
77. Jerry W. McGee, "Navigability Field Report [Yarger Lake]," August 6, 1975, "Navigability Investigation Report on Yarger Lake, "September 9, 1975, "Staff Easement Report," ANCSA Files.
78. McKennan, op. cit., pp. 18-19.
79. Alaska Native Service, op. cit.
80. F.H. Moffit and A. Knopf, Mineral Resources of the Nabesna-White River District, Alaska...U.S. Geological Survey Bulletin 417 (Washington, 1910), p. 15.
81. McKennan, op. cit., pp. 17-18.
82. Grumman Ecosystems Corporation, op. cit., p. 4-473.
83. James D. Bush, Jr., "Narrative Report of Alaska Construction, 1941-1944" (unpublished manuscript, n.d.). Photostatic copy on file at Alaska Resources Library, Anchorage.
84. Donald J. Orth, Dictionary of Alaska Place Names. U.S. Geological Survey Professional Paper 567 (Washington, 1971), p. 668. Roger Steven Pitts, "The Changing Settlement Patterns and Housing Types of the Upper Tanana Indians (unpublished M.A. thesis, 1972), claims that the village was called "Kath Theel" in prehistoric times. (p. 62) In 1945, R. L. Jennings wrote that the Nabesna River flooded the village in 1943 and 1944, and was cutting the banks at the rate of eight feet per year. Located within 60 feet of the river, the village would have to be moved in a few years. It is not clear whether Jennings was referring to Northway Village or Nabesna Village; but because the the latter village was moved in 1947, it is probable that he was referring to Nabesna Village. Alaska Native Service, op. cit.
85. Alaska Native Service, op. cit.; "Staff Easement Report," ANCSA Files.
86. Orth, op. cit., pp. 201, 501.
87. McKennan, op. cit., pp. 18, 47.

88. Ibid., p. 62.
89. Fairbanks Daily Times, August 19, 1913, October 14, 1913.
90. Grumman Ecosystems Corporation, op. cit., pp. 4-473, 4-479, 4-480.
91. Cordova Daily Alaskan, November 24, 1913; George Johnson, op. cit.
92. Fairbanks Daily Times, October 8, 1913; October 14, 1913, Cordova Daily Alaskan, February 26, 1914. For a short while the town was called "Shucklinville," after Sam Shucklin, a merchant of Fairbanks, who transported supplies by dog team to Chisana and opened a store.
93. McKennan, op. cit., pp. 17-18; George Johnson, op. cit.
94. Grumman Ecosystems Corporation, op. cit., p. 4-489.
95. Bush, Jr., op. cit., pp. 110-111.
96. The Ella was launched at Whitehorse on May 20, 1905. The sternwheel steamboat was reportedly 120 feet long with a 26-foot beam, built light to navigate shallow streams. It was said at Dawson that the gasoline-powered craft had a draft of 11 inches. The boat did not carry cargo, except supplies, on its maiden voyage in 1905. Dawson Daily News, June 14, 1905, June 22, 1905, July 24, 1905. In 1906, the steamboat was reported at Chena, unloading 250 pounds of freight for the Tanana Trading Company, which operated on the Kantishna River. Fairbanks Daily Times, July 8, 1906.
97. Fairbanks Daily Times, September 6, 1913; Cordova Daily Alaskan, August 11, 1913. Walter Fisher, who was not on the Ella, said the steamboat went 15 miles up the Nabesna River. The Cordova newspaper reported that the Ella ascended the river a distance of 10 to 12 miles.
98. Cordova Daily Alaskan, August 4, 1913.
99. Fairbanks Daily Times, September 6, 1913.
100. Fairbanks Daily Times, July 29, 1913.
101. Cordova Daily Alaskan, July 7, 1913.
102. Cordova Daily Alaskan, December 17, 1913.
103. Terrance Cole, "The Chisana River" (unpublished manuscript, 1978). This study was prepared for the Arctic Environmental Information and Data Center and the BLM. Now a historian with the Alaska Division of Forest, Land and Water Management, Mr.

Cole provided the writer with a copy of the study as well as photostatic copies of the newspaper articles, upon which the study is largely based, in January, 1979.

104. Fairbanks Daily Times, July 26, 1913. Just prior to the Chisana rush, the Reliance was operated on the Fairbanks-Bettles run. Disappointed with the 1913 trip up the Tanana River, the Northern Navigation Company returned the steamboat to the Koyukuk River run. The company decided that the McCarthy route to Chisana had "superior advantages" over the Tanana River route. Cordova Daily Alaskan, October 16, 1913.
105. Fairbanks Daily Times, July 26, 1913, August 16, 1913, August 20, 1913, September 5, 1913, September 9, 1913, September 10, 1913.
106. Fairbanks Daily Times, July 29, 1913, July 30, 1913. According to the newspapers, the Tetlin was carrying six tons, and drawing 18 or 20 inches of water.
107. Cordova Daily Alaskan, October 13, 1913.
108. Fairbanks Daily Times, September 12, 1913, October 14, 1913.
109. Fairbanks Daily Times, September 9, 1913. Four prospectors in a small poling boat lost their outfits to the Nabesna River when the boat upset. Fairbanks Daily Times, September 12, 1913.
110. Jerry W. McGee, "Navigability Investigation Report on Nabesna River," September 9, 1975, ANCSA Files.
111. Robert L. Jenks to Curtis V. McVee, June 3, 1975, ANCSA Files. All but one statement - that of Kenneth P. Albert - bear signatures.
112. Statement of Kenneth P. Albert, May 5, 1975, ANCSA Files.
113. Statement of Albert L. Eggebrotten, February 6, 1975, ANCSA Files.
114. Statement of Roy F. Sam, May 7, 1975, ANCSA Files.
115. Statement of Lily Northway, April 16, 1975, ANCSA Files.
116. Statement of Walter Northway, May 5, 1975, ANCSA Files. Mr. Northway, who was 98 years old in 1975, said, "In 1913, a large steamboat came up Chisana River into Nabesna River hauling freight to gold mine in Nabesna. The name of the steamboat was called Tana. This time the boat came up the river, it unloaded passengers at the mouth of the Nabesna River to lighten the boat so it could travel easier on up the river. The passengers (about 100-150) built log boats and poled up the river to the gold mine at Nabesna. There was much activity on this river

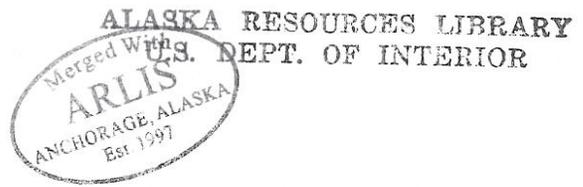
during the gold rush." Mr. Northway has confused the Nabesna River with the Chisana River. There is no evidence that the Tana ascended the Nabesna River. As a matter of fact, the Tana never reached the Nabesna River. It was forced by river conditions to land its freight and 90 passengers at a point within nine miles of the confluence of the Nabesna and Chisana rivers. The boat was then put into winter quarters at the mouth of the Tetlin River where it remained until July 1914, when it returned to Fairbanks. See Fairbanks Daily Times, September 25, 1913, July 5, 1914, July 7, 1914.

117. Stephen R. Capps, The Chisana-White River District, p. 27.
118. Fairbanks Daily Times, October 8, 1913, October 14, 1913, May 14, 1914. The steamboat Shushana made two trips from Fairbanks to the Chisana River in 1913, and wintered near Nabesna River. One newspaper reported that the boat made an unsuccessful attempt to ascend the upper waters of Chisana River. Apparently the newspaper meant the Tanana River, inasmuch as the steamboat did not even reach the mouth of the Nabesna River on its first trip. Fairbanks Daily Times, September 12, 1913, October 8, 1913, May 20, 1914.
119. Statement of Kenneth P. Albert, May 5, 1979, ANCSA Files.
120. Statement of Roy F. Sam, May 7, 1975, ANCSA Files.
121. Statement of Lily Northway, April 16, 1975, ANCSA Files.
122. Statement of Della May Northway, May 6, 1975, ANCSA Files.
123. Statement of Stewart Albert, May 6, 1975, ANCSA Files.
124. Statement of Quana M. Northway, April 16, 1975, ANCSA Files.
125. Statement of Walter Northway, May 5, 1975, ANCSA Files.
126. Moffit and Knopf, op. cit., p. 12.
127. Cordova Daily Alaskan, December 13, 1912.
128. Cordova Daily Alaskan, March 14, 1913.
129. Cordova Daily Alaskan, August 28, 1913; Cairnes, op. cit., pp. 46-47.
130. Cairnes, op. cit., p. 49.
131. Ibid., p. 50.
132. Cordova Daily Alaskan, December 13, 1912.

Cole provided the writer with a copy of the study as well as photostatic copies of the newspaper articles, upon which the study is largely based, in January, 1979.

104. Fairbanks Daily Times, July 26, 1913. Just prior to the Chisana rush, the Reliance was operated on the Fairbanks-Bettles run. Disappointed with the 1913 trip up the Tanana River, the Northern Navigation Company returned the steamboat to the Koyukuk River run. The company decided that the McCarthy route to Chisana had "superior advantages" over the Tanana River route. Cordova Daily Alaskan, October 16, 1913.
105. Fairbanks Daily Times, July 26, 1913, August 16, 1913, August 20, 1913, September 5, 1913, September 9, 1913, September 10, 1913.
106. Fairbanks Daily Times, July 29, 1913, July 30, 1913. According to the newspapers, the Tetlin was carrying six tons, and drawing 18 or 20 inches of water.
107. Cordova Daily Alaskan, October 13, 1913.
108. Fairbanks Daily Times, September 12, 1913, October 14, 1913.
109. Fairbanks Daily Times, September 9, 1913. Four prospectors in a small poling boat lost their outfits to the Nabesna River when the boat upset. Fairbanks Daily Times, September 12, 1913.
110. Jerry W. McGee, "Navigability Investigation Report on Nabesna River," September 9, 1975, ANCSA Files.
111. Robert L. Jenks to Curtis V. McVee, June 3, 1975, ANCSA Files. All but one statement - that of Kenneth P. Albert - bear signatures.
112. Statement of Kenneth P. Albert, May 5, 1975, ANCSA Files.
113. Statement of Albert L. Eggebrotten, February 6, 1975, ANCSA Files.
114. Statement of Roy F. Sam, May 7, 1975, ANCSA Files.
115. Statement of Lily Northway, April 16, 1975, ANCSA Files.
116. Statement of Walter Northway, May 5, 1975, ANCSA Files. Mr. Northway, who was 98 years old in 1975, said, "In 1913, a large steamboat came up Chisana River into Nabesna River hauling freight to gold mine in Nabesna. The name of the steamboat was called Tana. This time the boat came up the river, it unloaded passengers at the mouth of the Nabesna River to lighten the boat so it could travel easier on up the river. The passengers (about 100-150) built log boats and poled up the river to the gold mine at Nabesna. There was much activity on this river

133. Cordova Daily Alaskan, May 18, 1914.
134. Cordova Daily Alaskan, December 3, 1913.
135. Cordova Daily Alaskan, February 10, 1914.
136. U.S., Board of Road Commissioners for Alaska, Report... (Washington, 1926), p. 31; N.L. Wimmeler, Placer-Mining Methods and Costs in Alaska. U.S. Bureau of Mines Bulletin 259 (Washington, 1927), p. 24.
137. F. H. Moffit, et al., Mineral Resources of the Nabesna-White River Area, p. 12.
138. Cordova Daily Alaskan, August 4, 1913.
139. Stephen R. Capps, Mineral Resources of the Chisana-White River District, p. 195.
140. The Cordova Daily Times, October 1, 1929.
141. The Cordova Daily Times, October 23, 1929.
142. Pitts, op. cit., p. 105.
143. Beth Day, Glacier Pilot: The Story of Bob Reeve and the Flyers Who Pushed Back Alaska's Air Frontiers (New York, 1957), pp. 209-211; "Staff Easment Report," ANCSA Files.
144. "Staff Easement Report," ANCSA Files.
145. See U.S. Geological Survey, Map of Nabesna Quadrangle, 1960.
146. "Description of Chisana-Nabesna Aviation Fields," n.d., and R.J. Shepard to Alaska Road Commission, December 6, 1929, Inactive Records of the Old Alaska Road Commission and the Bureau of Public Roads for Alaska, 1920-58, RG 30, Federal Archives and Records Center, Seattle, WA.
147. Bush, Jr., op. cit., p. 111.
148. "Staff Easement Report," ANCSA Files.
149. "Description of Chisana-Nabesna Aviation Fields," op. cit.; Beth Day, op. cit., p. 219.
150. Beth Day, op. cit., p. 93.



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CONTEMPORARY USES OF LAKES IN THE NORTHWAY
REGION OF ALASKA

STATE OF ALASKA
JAY HAMMOND, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
JOHN KATZ, COMMISSIONER

DIVISION OF RESEARCH AND DEVELOPMENT
POLICY RESEARCH AND LAND ENTITLEMENT

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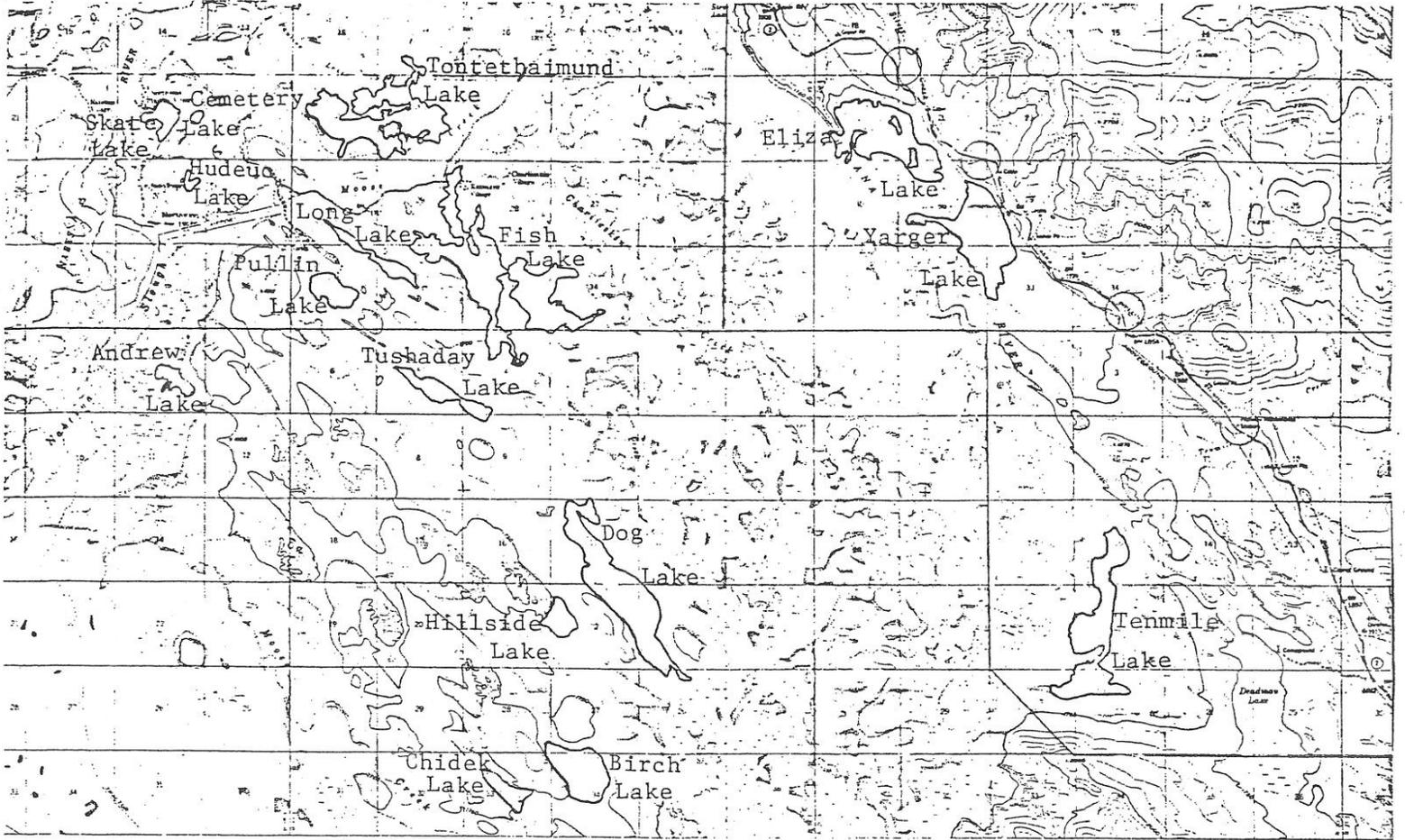
AUGUST 1982

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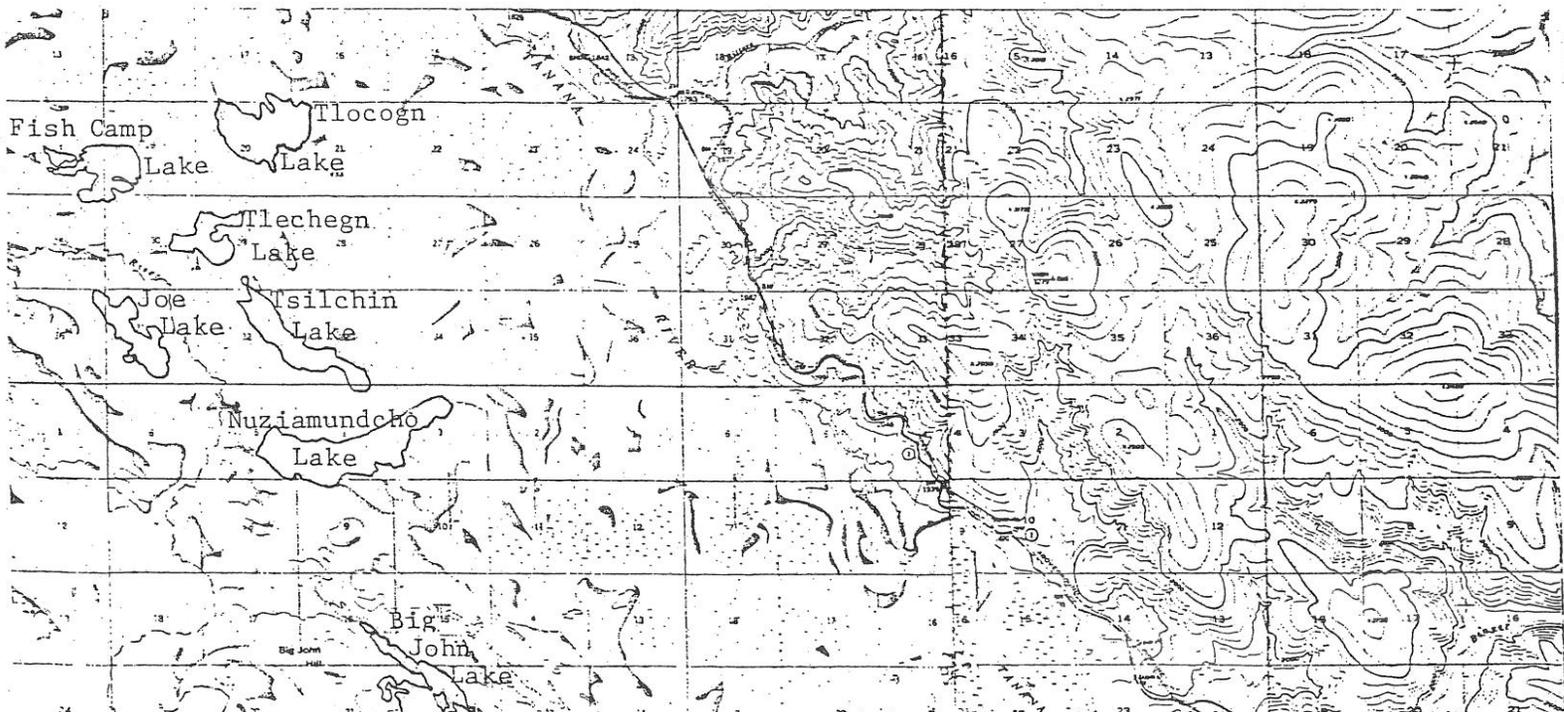
Introduction

This report was prepared in anticipation of a navigability case to be filed by the State of Alaska in U.S. District Court. It was prepared with contemporary uses of lakes in the Northway area serving as the primary focus. However, to fill gaps in BLM's 1979 navigability report on the historic uses of the Upper Tanana River and lakes in that region, a section on ethnographic information regarding uses of the lakes is presented.

Information from published and unpublished sources, as well as from questionnaires and oral interviews, is presented. The author traveled to Tok and Northway between August 12 and August 19, 1982 in order to talk to residents who might have used the lakes under study.



NABESNA (D-2) QUADRANGLE
ALASKA



Archaeological Resources

Archaeological evidence indicates that the Tanana Indians inhabited the Northway region prior to white contact.

Elizabeth F. Andrews' inventory of pre-historic and historic sites in the Northway region remains the most complete compilation of archaeological resources to date. Her Report on the Cultural Resources of the Doyon Region, Central Alaska (1977), lists twenty-six sites in the area under study. Her inventory is contained in Appendix 3 of this report. In her report, Andrews notes that "archaeological investigations in the region of the Upper Tanana have revealed early historic as well as prehistoric occupations. Several areas were investigated as early as 1936 and showed evidence for earlier occupations in the subregion, while more recent excavations during the past fifteen years have shown that some sites were inhabited in the twelfth and sixteenth centuries A.D., around 500 B.C., and as early as 11,000 years ago" (Andrews 1977:1:179).

The early archaeological work Andrews refers to is that of Froelich Rainey. In 1936 Rainey completed surveys at Tetlin, Tanacross, and Big Delta; he discovered sites at all three locations. In his account of the 1936 field season, Rainey describes the settlement patterns of the villages he visited: "In the upper part of the Tanana valley there remain four of the most thriving Indian villages in central Alaska. . . . The present Nabesna village has been built around a trading post situated seven miles above the mouth of the Nabesna, but the old village, as well as the one now occupied during the summer fishing season, is located on a lake some five miles distant" (Rainey 1939:379).

Rainey summarized his 1936 survey by stating that "the Indians at present, and quite certainly aboriginally, disperse in family groups at certain seasons to trap and to hunt caribou and moose, but return to the fishing sites in spring and summer to obtain the staple food" (Rainey 1939:379). Andrews notes that "settlements and camps traditionally were located near the larger lakes and at strategic points in the hills" (1977:1:171).

Ethnography of the Upper Tanana Indians

Numerous ethnographic studies have been conducted in the Northway region. The earliest was that of Robert A. McKennan, now professor emeritus of Anthropology at Dartmouth College, who worked in the Northway region in 1932. More recent studies by Marie Francoise-Guedon, Roger Pitts, and Ramon B. Vitt indicate a variety of waterbody use in the Northway region.

In 1932, McKennan prepared a doctoral thesis, The Indians of the Upper Tanana, Alaska. His further research in the area, combined with results of the thesis, was published by Yale University Publications in 1959. McKennan's research was most concerned with the seasonal movements of the Tanana Indians as related to available food resources. He found that "fishing by either net or hook and line is not part of the Upper Tanana culture, and this absence of all-year fishing further stamps the Upper Tanana as definitely a hunting people" (McKennan 1959:63), whose economic life and annual migrations centered around the caribou.

Regarding water use, McKennan noted that muskrats were hunted from canoes and shot with bows and arrows, and that the market for muskrat skins injected a new factor into the Indians' seasonal life (McKennan 1932:64). His research showed that different kinds of water craft were used on the local waterways:

Birch-bark canoes are the accepted mode of water travel. The canoes used are of exceptionally light construction, weighing only about forty pounds, which makes it possible for them to be easily carried from one lake to another. They measure from 12 to 16 feet in length, are about 2 feet in width, and are extremely shallow.

The natives use a skin boat for crossing rivers and carrying heavy loads. A typical skin boat measures 17 feet in length, 4 feet in width, and 2 feet in depth. Such boats are capable of transporting a dozen or more people. They are propelled by several paddles on each side and steered by another paddle in the hands of a helmsman. In addition to the canoe and the skin boat the Indians occasionally utilize the raft. (McKennan 1959:92-92)

Marie Francoise Guedon's monograph, People of Tetlin, Why Are You Crying? (1974), is one of the most thorough studies of the Indians of the Northway region. Regarding subsistence and seasonal settlement patterns, Guedon notes that "lakes are prominent features in the landscape. Each one, even the smallest, has a name. . . . They are favorite grounds for hunting moose in summer and fall, and for trapping muskrats in the spring" (Guedon 1974:26). Waterfowl were an important source of meat for Indians of the Northway region, and Guedon found that

There were waterfowl in the nearby lakes, but they were best found toward Tetlin Lake or on the numerous lakes between Tetlin and Nabesna (Midway Lake for instance). So the population would be broken up in small spring camps scattered over the flats. These camps also served as fish camps on the shores of lakes; they were also bases for beaver and muskrat hunting. (Guedon 1974:42)

Ramon B. Vitt's M.A. thesis, Hunting Practices of the Upper Tanana Athapaskans (1971), looks at the many ways Indians have used the local waterways. His study is unique in that it is a contemporary ethnographic treatment of the Indians utilizing the perspectives provided by McKennan's earlier studies. According to Vitt (1971:59-60):

In 1970, . . . the nomadic way of life had given way to a sedentary life revolving around stable settlements. . . . A few families, usually members of the older generation, leave their village cabins during the summer and take up short-termed residence at the old fish camps. Because of the faltering fur trade and low price of furs, little trapping is done today.

Vitt confirmed McKennan's observations on water transportation and added new information gathered from some of McKennan's informants:

Throughout the entire area, the birch bark canoe was used for water transport. They were light, weighing approximately 40 pounds, and were 12 to 16 feet long by about 2 feet wide. Water displacement was very slight as the canoes were extremely shallow and flat bottomed. Today, light weight canoes are constructed with coverings of canvas and are known as "rat" canoes for their use in muskrat hunting. . . .

. . . At the fishing camp near Northway Village, a few rotting frameworks of these old crafts are still to be seen. (Vitt 1971:104)

Vitt noted that in 1971 "Modern river crafts with outboard engines are commonplace. Small 'rat' canoes with canvas coverings are currently being made in limited number in Northway and Tetlin for use on the nearby streams and lakes, especially for the taking of spring muskrats" (Vitt 1971:105).

Vitt devotes some attention to native muskrat hunting, noting that in February the fishing camps break up, with individual groups going to their own lakes and marshes to hunt muskrats in the Tetlin area. He writes that "muskrats were an important food article especially when they were taken in the early spring before the mating season" (Vitt 1971:133). Additionally,

muskrats could be taken either on land or in the water by the use of light-weight "rat" canoes. . . . By far the greatest number were taken in the water. A hunter, with bow and arrow at the ready, would sit silently in a small canoe and produce a call with his lips which sounded like "new-new" and which was attractive to the species. (Vitt 1971:134)

Beaver has also been hunted by the Northway area Indians. Sometimes they were clubbed by opening runways under the ice. "After a beaver was killed,

its intestines were put back under the ice into the water in order to 'make more beavers'" (Vitt 1971:137-138). Vitt noted that "another method of trapping them today is by placing steel traps in the air spaces that form between the top ice and the water along a river or lake" (Vitt 1971:144). Finally, Vitt discovered tht "ducks became an important short-term food source when they underwent moulting and were relatively easy to secure. Duck hunting by men in boats would necessitate a silent approach as the ducks swam in bays and coves, and were shot with bow and arrow" (Vitt 1971:164).

Another M.A. thesis dealing with the Tanana Indians (Pitts 1972) investigates settlement patterns and their relationship to housing types. In writing about transportation, Pitts notes that "methods of transportation among the Upper Tanana were geared to the predominantly nomadic existence they led during the year" (Pitts 1972:100). Like McKennan and Vitt, Pitts discusses water craft used by these Indians:

referred to as the "Rat Canoe" by the natives, these birch bark crafts were primarily used to hunt for muskrat or beaver. . . . The lightness of the craft and a flat bottom keel allowed the Upper Tanana to take advantage of the small lakes. (Pitts 1972:103)

In 1979, historian Terrence Cole, as part of an Alaska Department of Natural Resources navigability study of the Chisana and Nabesna rivers, interviewed long-time Alaskan resident Ted Lowell regarding his knowledge and experience of waterbody use in the Northway region. Information from the transcript of the interview follows. Most of Lowell's information concerns native use of lakes in relation to "ratting" or muskrat hunting.

According to Lowell (1979:12), natives would trap in all the lakes around the Nabesna area. Regarding the general manner of native trapping, Lowell said that in the spring the natives would move out of the hills where they had been trapping and move down into the flats where all the lakes, and all the muskrats, were. Evidently the natives would set up tents on the shores of the lakes during the trapping season (Lowell 1979:13). The natives had small boats and canoes as well as 30-foot poling boats (Lowell 1979:14). Regarding travel between lakes, Lowell said that the land was swampy and the natives had trails, or natives would get from lake to lake using small canoes; "if its a good lake, they'd just pitch their tent there and make that headquarters for muskrattng and walk from this lake to that lake, and get around like that. Well, like Walter Northway now, he had a couple of canoes" (Lowell 1979:24).

Lowell observed that "if there was any lakes that they could use a canoe, you see the lakes thaws from outside in. There'd probably be a patch of ice out in the middle of the lake and it would be all thawed around the edge of the lake to they could take the canoe and go around the edge and hunt muskrats that way with canoe" (Lowell 1979:29).

Contemporary Uses (Specific Waterbody Use)

Information presented in this section of the report was obtained through numerous sources, including questionnaires, oral interview, literature search, and library resources. Due to the large number of waterbodies studied, each is listed alphabetically and available specific use information is presented.

Andrew Lake

No specific information was found to indicate contemporary use of this lake.

Big John Lake

According to Daniel Grangaard and Dave Kellyhouse (1982:personal communication), "there is a trapping cabin on the lake built in 1971 by D. Grangaard and D. Brady. Area has been trapped since 1968 by D. Grangaard. Summer access by canoe off Kalutna River with portage. Winter access by snowmachine on ice. Muskrat hunting (trapping with rifle), waterfowl and moose hunting lake." An interview with Grangaard confirmed his written statements. In July 1982, Steve Breeser, in the course of his duties with the U.S. Fish and Wildlife Service in the Tetlin Refuge, had occasion to land on the lake with a Lake Buccaneer (a sea plane) with three people aboard. He conducted a fishery inventory of the lake (Breeser 1982:personal communication).

Birch Lake

No specific information was found to indicate contemporary use of this lake.

Chidek Lake

No specific information was found to indicate contemporary use of this lake.

Cemetery Lake

According to Grangaard and Kellyhouse (1982:personal communication) the lake is near an airport and people walk to the lake to hunt ducks.

Dog Lake

Rosemarie Maher, president of Northway Natives, has two native allotments on the lake. She has used the sites since 1965 for hunting and trapping, and access to the allotments is by snowmachine, boat and foot (Bureau of Land Management n.d. a). Enna Albert also has a native allotment on the lakes

and has used the area since 1949 for hunting and trapping, getting to it by dogteam, snow machine and foot (Bureau of Land Management n.d. b). Grangaard and Kellyhouse (1982:personal communication) note that the lake has "access by Open Creek or Charlieskin Creek. Good duck hunting, muskrat hunting and pike fishing. Boats have been used on the lake." Grangaard (1982:personal communication) said that in summer 1975 and 1976 he used a canoe and an airboat on the lake for pike fishing. He was able to reach the lake via Fish Lake, Fish Creek with a 100 yard portage with the canoe. He also landed on the lake this year in a Lake Buccaneer.

Eliza Lake

According to Kellyhouse (1982:personal communication) he was on the lake in September 1981 for recreational purposes using a canoe. Dave Stout (1982:personal communication) was on the lake in September 1981 for recreational purposes using a canoe, and he used the lake in 1968 in the summer, fall, and winter with canoe and snowmachine and dog team for beaver and muskrat trapping. Grangaard (1982:personal communication) has used the lake off and on since 1965 for duck hunting and pike fishing. He has used an airboat on the lake getting there via the Chisana River. He said that he has carried 400 pounds in the boat. Grangaard and Kellyhouse (1982:personal communication) write that the lake is along the highway, and access is by boat on a slough off Chisana River which leads to good duck hunting and pike fishing.

Fish Lake

One of the largest lakes in the Northway region, Fish Lake is the "most important lake for duck hunters from Fairbanks, Anchorage, and Tok. Easily accessible by boat on Moose Creek. Pike fishing, 'rat hunting and excellent duck hunting reknowned statewide" (Grangaard and Kellyhouse 1982:personal communication). James Clinton (1976) has used the lake for fishing and waterfowl hunting in September over a period of twenty years; although he used it only occasionally between 1956 and 1966, he used it yearly between 1966 and 1976.

Another user, Edward Luiten, hunted ducks and geese on the lake for seven years. According to Luiten "we drive to Northway and then use a canoe with outboard motor to get to the hunting areas for duck and geese. The trips are made during September and October. Occasionally fishing equipment is used and Northern Pike are caught" (Luiten 1976). Richard Rapp (1976) has used the lake to hunt ducks and geese in the fall, using a canoe and motor-boat. He has used the area an average of 2 to 3 times a year (1970-1976). Grangaard (1982:personal communication) has used the lake off and on since 1965 for duck hunting and pike and whitefish fishing. He has used canoes, river boats, and float planes to get there. With the canoe he has reached the lake via Tsilchin Lake and Moose Creek. He traps the lake from November through March.

Fishcamp Lake

Used by Grangaard between 1965 and 1979, he hunted duck and moose as well as trapped utilizing a 17' canoe. He says the lake is deep enough for a float plane to land on (1982:personal communication). Grangaard and Kellyhouse (1982:personal communication) say the lake "has been used by Tok residents for muskrat trapping; access by snowmachine over ice in spring." In the early 1970's Stout (1982:personal communication) used the lake in winter for recreation as well as for photography, using a snowmachine to travel on the ice.

Hillside Lake

No specific informaton was found to indicate contemporary use of this lake.

Hudeuc Lake

No specific information was found to indicate contemporary use of this lake.

Joe Lake

According to Grangaard and Kellyhouse (1982:personal communication) this lake is in the Tetlin Indian reservation; it has good duck hunting but is seldom used because it is landlocked.

Long Lake

According to Grangaard and Kellyhouse (1982:personal communication) this lake is partially in the Tetlin Indian reservation, has excellent duck and goose hunting, and is landlocked.

Nuziamundcho Lake

Stout (1982:personal communication) used this lake off and on in the early 1970's for recreational use, utilizing a snowmachine for transport. Grangaard (1982:personal communication) used the lake between 1965 and 1979 for muskrat hunting and trapping lynx; he used a canoe on the lake. Breeser (1982:personal communication) conducted a fishery inventory on the lake in July 1982, reaching the lake via a Lake Buccaneer. According to Grangaard and Kellyhouse (1982:personal communication) the lake is "locally known as Swan Lake. . . . Excellent muskrat trapping in spring for Tok residents. Good duck and goose hunting, but no fishing. Trapped in winter."

Pauline Lake

No specific information was found to indicate contemporary use of this lake.

Pullin Lake

No specific information was found to indicate contemporary use of this lake.

Shashmund Lake

No specific information was found to indicate contemporary use of this lake.

Skate Lake

Two shareholders of the Northway Village corporation reported seeing floatplanes land on the lake many times (Northway 1975; Sam 1975).

Thadlthamud Lake

No specific information was found to indicate contemporary use of this lake.

Tenmile Lake

Grangaard and Kellyhouse (1982:personal communication) write that the lake is "important lake, connected to the Chisana river by navigable creek. Excellent duck and goose hunting and pike fishing. Used by many Tok residents each fall. Muskrat hunting in spring, trapping in winter over ice. Good floatplane access as most other Northway lakes."

This lake was used by Grangaard (1982:personal communication) from 1966 to the present for moose and duck hunting as well as muskrat hunting and fishing. He reaches the lake by two routes--via Scottie Creek with a canoe and airboat, and via Chisana River with the same transportation. He has landed on the lake with a Lake Buccaneer and a Cessna 170 on floats. Kellyhouse (1982:personal communication) has used an 18' riverboat and a 12' airboat on the lake from 1978 to 1982.

Tlechegn Lake

Grangaard and Kellyhouse (1982:personal communication) report that this lake is "locally called Fish Lake. Trapped in winter over ice by Tok trappers. There is a good boatable, well used creek into lake though it doesn't show on map." Good muskrat trapping and pike fishing. Excellent duck hunting. Stout (1982:personal communication) used the lake in the early 1970's by snowmachine for recreational viewing. Grangaard (1982:personal communication) reports use between 1965 and 1981 for trapping, fishing, and duck and moose hunting. He has used a canoe with 5 hp motor, a 16', v-bottom river boat, as well as an airboat on the lake. He says you can get to the lake via a short, 1/8-mile portage from the Kalutna River.

Tlocogn Lake

According to Grangaard and Kellyhouse (1982:personal communication) the lake is "trapped by a Tok trapper in winter over ice. Landlocked and no fish. Used by moose and duck hunters in fall by trail from Tanana River. Many local Tok people used to keep boats on the lake for fall hunting." Stout (1982:personal communication) used the lake in the early 1970's for recreational viewing with a snowmachine. Grangaard (1982:personal communication) used the lake between 1965 and 1980 for duck and moose hunting and trapping. He used a canoe on the lake for transport.

Tontethiamund Lake

Clinton (1976) has used the lake for waterfowl hunting and fishing. Grangaard and Kellyhouse (1982:personal communication) write that the lake can be portaged to from Moose Creek for duck hunting.

Tselchin Lake

Grangaard (1982:personal communication) has used the lake since 1965 for duck hunting. He has reached the lake with canoe and airboat via the Kalutna River. Stout (1982:personal communication) used it in the early 1970's for recreational purposes. According to Grangaard and Kellyhouse (1982:personal communication) the lake is "used by Tok people for trapping muskrats, duck and goose hunting, moose hunting. Important fall resting area for Whistling Swans. Good pike fishing. Float planes have landed to transport duck hunters."

Tushaday Lake

No specific information was found to indicate contemporary use of this lake.

Yarger Lake

Specific use research indicates that Yarger Lake is the most frequently used lake in the Northway area. Recreational use is the primary activity on this lake, although trapping and hunting occurs. According to Grangaard and Kellyhouse (1982:personal communication) this lake has "easy access; swimming, pike fishing, duck hunting, recreational boating. Access to Alaska Highway and the Chisana River. Muskrat trapping and hunting in spring." Grangaard (1982:personal communication) has used the lake since 1965 for fishing, hunting, swimming and other forms of recreation. He says that you can get to the lake via the Chisana River, and has done so with an 18' canoe carrying 600 lbs.

Nellie Briggs, shareholder of Doyon Native corporation, has a native allotment adjoining Yarger Lake and has used that parcel since 1947 for whitefish and pike fishing, duck and rabbit hunting, and recreational use (Bureau of Land Management n.d.c.). According to the Bureau of Land Management (1975) "because of the State Wayside Campground, and road giving direct access to this lake, it is used heavily by tourists and other people for light boating, canoeing, fishing and swimming. Dave Parker of Tok has trapped muskrats and hunted duck here for the last several years." In June, 1982, Breeser (1982:personal communication) conducted a waterfowl survey on this lake using a riverboat; during the trip he saw two floatplanes land on the lake.

Contemporary Uses (general waterbody use)

Information presented in this section of the report was obtained through oral interviews and questions. This information relates to general, non-specific uses of lakes in the Northway region.

Red James (1982:personal communication), owner of Chistochina Lodge, used lakes in the Northway region between 1968 and 1973 and between 1980 and 1981 for muskrat hunting and fox trapping. During those periods of use, James used the lakes between November and February, using a Cessna 185, Supercub, and Citabria, all equipped with skis, to reach his trapping areas. He also has used snowshoes on the lake ice for ground transportation, and at times transported a small snowmachine in the Cessna 185 for use on the lakes.

Jim Carson (1982:personal communication) has used Northway lakes since 1970 for a variety of purposes. He hunts muskrats between April and June, hunts ducks in September and October, fishes between June and October, and hunts bear and moose in September and October. He says that he uses the lakes weekly as part of his personal business. To reach the lakes, Carson uses Moose and Scottie Creeks and the Shushana, Tanana and Nabesna rivers. He has used riverboats, airboats, and canoes on the lakes. He estimates that his 16- and 18-foot riverboats carry up to 1,200 pounds and that his 13-foot airboat can carry 600 pounds. His canoe can carry up to 900 pounds on the lakes. Carson says that snowmachines are frequently used on the lakes in the winter.

John Martinuk, (1982:personal communication) a trapper in Tok, has used lakes in this region for twelve years. The lakes he used include all those in Tanacross A-3. His use has been between January and April, and between September and December. He traps for otter, mink, muskrats, fox, wolves, and wolverine. He also hunts moose and ducks. He says that the Kalutna River and Moose and Fish creeks are access points into the lakes. Martinuk uses 16- and 18-foot riverboats on the lakes; these riverboats carry as much as 1,000 pounds of gear and have a draft of two to three inches fully loaded. He also uses a 12-foot air boat and says it has a one-inch draft fully loaded.

F. Griffin (1982:personal communication) used Tontethaimund, Dog, and Nuziamundcho lakes in 1953, 1962, and 1964 for fishing and duck hunting. He used the lakes in May and June, utilizing an airplane for access to those lakes.

Appendix 1

Informants

- Daniel Grangaard - Resident of Tok since 1965 and an employee of the Alaska Department of Fish and Game. Has hunted, fished, and trapped in the Northway region since 1965.
- Steve Breerer - Assistant Manager of the Tetlin Wildlife Refuge (U.S. Fish and Wildlife Service).
- Dave Stout - Grocery store owner near Northway and owner of Stout-Alaska, Inc. Has hunted, fished, and trapped in the Northway region since 1968.
- David Kellyhouse - Resident of Tok since 1978 and supervisor of the Tok Management Area for the Alaska Department of Fish and Game.
- Jim Carson - Resident of Tok. He has hunted, fished, and trapped in the Northway region since 1970.
- John Martinuk - Resident of Tok since 1962. Self employed as a trapper. Has hunted, trapped, and fished in the Northway region since 1970.
- Red James - Owner of Chistochina Lodge and has trapped in the Northway region since 1968.

Appendix 2

Named Lakes and Geographical Location

- Andrew Lake: 0.5 miles long, between Moose Creek and Nabesna Slough,
1.6 miles south of Northway
62°56'N, 141°56'W
local name reported in 1954 by USGS
- Big John Lake: 1.5 miles long, east of Big John Hill, 13 miles
west-northwest of Northway
63°52'N, 141°10'W
local name reported in 1963 by USGS
- Birch Lake: 0.9 miles long, 1.2 miles southwest of Dog Lake and 7.3
miles southeast of Northway
62°52'N, 141°47'W
local name reported in 1954 by USGS
- Chidek Lake: 0.7 miles long, west of Birch Lake, 7.3 miles southeast of
Northway
62°52'N, 141°49'W
Indian name reported in 1954 by USGS
- Cemetery Lake: 0.2 miles long, east of Skate Lake, 1.2 miles north of
Northway
62°58'50"N, 141°55'55"W
local name reported in 1954 by USGS
- Dog Lake: 2.6 miles long, at head of Charlieskin Creek, 5.4 miles
southeast of Northway
62°53'N, 141°46'W
local name reported in 1954 by USGS
-
- Eliza Lake: 1.5 miles long, between Chisana river and Alaska Highway, 7
miles southeast of Northway
62°59'N, 141°40'W
local name reported in 1954 by USGS
- Fish Camp Lake: 1 mile across, 1.8 miles southwest of junction of Kalutna
and Tanana Rivers and 25 miles southwest of Tok
63°09'N, 142°17'W
local name reported in 1963 by USGS
- Fish Lake: 2.5 miles long, 2.5 miles east of Northway
63°02'03"N, 142°36'00"W
local name reported in 1964 by USGS

Hillside Lake: 0.5 miles long, west of Dog Lake, 6 miles southeast of Northway
62°54'N, 141°48'W
local name reported in 1954 by USGS

Hudeuc Lake: 0.3 miles long, northeast of Northway
62°58'N, 141°56'W
local name reported in 1954 by USGS

Joe Lake: 1.2 miles long, on west bank of Kalutna River, 16.5 miles northwest of Northway
63°08'N, 142°16'W
local name reported in 1964 by USGS

Long Lake: 1.3 miles long, west of Fish Lake, 1.5 miles southeast of Northway
62°57'N, 141°52'W
local descriptive name reported in 1960 by USGS

Nuziamundcho Lake: 2.1 miles long, on east bank of Kalutna River, 14 miles northwest of Northway Junction
63°06'N, 142°12'W
Indian name reported in 1965 by USGS

Pauline Lake(s): two lakes; each 0.7 miles long, east of Nabesna River, 2 miles northeast of Northway
63°00'N, 141°53'W
local name reported in 1954 by USGS

Pullin Lake: 0.6 miles long, 1.5 miles southeast of Northway
62°57'N, 141°53'W
local name reported in 1954 by USGS

Shashamund Lake: 1.3 miles long, 0.5 miles south of confluence of Chisana and Nabesna Rivers, 41 miles southeast of Tok
63°02'N, 141°52'W
Indian name said to mean "duck lake," reported by USGS in 1960

Skate Lake: 0.7 miles long, southeast of Northway Indian village, 1 mile north of Northway
62°58'45"N, 141°56'45"W
local name reported in 1954 by USGS

Thadthadmund Lake: 0.8 miles long, southeast of Shashamund Lake, 1.2 miles northwest of Northway
63°01'30"N, 141°50'45"W
Indian name meaning "lily pad lake" reported in 1960 by T.E. Taylor--USGS

Tenmile Lake: 2.1 miles long, 4.5 miles southeast of Northway Junction

62°54'N, 141°36'W
 locally named for Tenmile Creek and reported in 1955 by USGS

Tlechegn Lake: 1 mile long, east of Klutana River, 26 miles southeast of Tok
 63°09'30"N, 142°13'30"W
 Indian name published by USGS in 1965

Tlocogn Lake: 1 mile long, 26 miles southeast of Tok
 63°09'N, 142°13'W
 Indian name published in 1964 by USGS

Tontethaimund Lake: 2.5 miles long, 1.8 miles north of Northway
 62°59'N, 141°52'W
 Indian name reported in 1955 by USGS

Tsilchin Lake: 1.8 miles long, 15 miles northwest of Northway Junction
 63°07'N, 142°12'W
 Indian name reported in 1964 by USGS

Tushaday(Tushadg) Lake: 1.2 miles long, 3 miles southeast of Northway
 62°56'N, 141°50'W
 local name published in 1960 by USGS

Yarger Lake: 1.4 miles long, 5.5 miles southeast of Northway Junction
 62°58'N, 141°39'W
 local name reported in 1954 by USGS

Appendix 3

Historic Sites - Upper Tanana river Subregion (adapted from Andrews 1977:415-18,461-64,466,68,477-8)

1. Site Number - NWY 1
2. a. Indian Name of Site Taey K'od'
b. English Name of Site Rock Fish Trap Camp
3. Map Reference NABESNA T10N/R23E SE1/4

COMMENTS

This site constituted a summer settlement of the Scottie Creek band of Athapaskan Indians. Their population was reported in 1929 as 25 persons (McKenna 1959:18). A few remaining decedants of this band currently reside in Northway. According to one informant, the site derives its name from a unique type of trap utilized to obtain fish with the use of a stone wear. Although R. McKenna has written an excellent monograph on the past life ways of the Upper Tanana, he was unable to record any substantial information on the Scottie Creek band. The site could provide valuable information on the essentially unknwn past life ways of these people.

1. Site Number - NWY 2
2. English Name of Site Island Lake
3. Map Reference NABESNA T11N/R23E SW

COMMENTS

~~This site was a fall settlement of the Scottie Creek bank of Indians. Their population was reported in 1929 as 25 persons (McKenna 1959:18). A few remaining decedants of this band currently reside in Northway. This site was significant in the annual round of subsistence activities in the traditional culture as a place for getting meat and drying it. Although R. McKenna has written an excellent monograph on the past life ways of the Upper Tanana, he was unable to record any substantial information for the Scottie Creek people. This site could provide valuable informaion on the essentially unknwn past life ways of these people.~~

1. Site Number - UTN 53
2. English Name of Site Tlocogn Lake
3. Map Reference TANACROSS T16N/R17E NW1/4

COMMENTS

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of such settlements in Native culture has been well-documented by Guedon (1975).

1. Site Number - UTN 54
2. English Name of Site Titus David's Camp
3. Map Reference TANACROSS T16N/R17E SW1/4

COMMENTS

This was a traditional settlement of the Tetlin Indians. The importance of such settlements has been well-documented by Guedon (1975).

1. Site Number - UTN 47
2. English Name of Site Old Village and Moose Fence
3. Map Reference TANACROSS T18N/R12E NE1/4

COMMENTS

A traditional Native settlement of the Mansfield Indians was located on this hill. It also marked the terminus of a moose fence which extended across the valley to the west. The importance of such fences and settlement in Upper Tanana culture has been documented by R. McKennan (1959) in his book The Upper Tanana Indians.

1. Site Number - UTN-2
2. English Name of Site Camp
3. Map Reference TANACROSS T19N/R10E NE1/4

COMMENTS

This was a traditional late 19th and early 20th century camp of the Mansfield Indians. The importance of similar settlements in the Native culture has been well-documented in several reports including McKennan (1959), Cook (1969), Guedon (1975), and Shinkwin (1975).

1. Site Number - UTN 46-3
2. English Name of Site Chief Walter's Camp
3. Map Reference TANACROSS T19N/R10E border NE, SE1/4

COMMENTS

This was a late 19th and early 20th century settlement of the Mansfield Indians. Chief Walter of Mansfield was raised on the site in the late 19th century. The importance of similar settlements in the upper Tanana region has been well-documented by McKennan (1959), Cook (1969), Guedon (1975), and Shinkwin (1975).

1. Site Number - UTN 42-2
2. English Name of Site Caribou Fence
3. Map Reference TANACROSS T19N/R10E SE1/4,
T19N/R11E SW1/4

COMMENTS

The caribou fence is associated with the settlements located near Mansfield Lake. Such fences were used by Native people prior to the introduction of the repeating rifle (.44 Henry) in the 1870's. The significance of such fences in Native culture has been well-documented by McKennan (1959, 1965) and Guedon (1975) in their books on the traditional cultures of the Upper Tanana and Chandalar Kutchin Indians.

1. Site Number - UTN 46-1
2. English Name of Site Old Village and Cemetery
3. Map Reference TANACROSS T19N/R10E NE1/4

COMMENTS

~~This was a late 19th and early 20th century traditional settlement of the Mansfield Indians. The importance of similar settlements in the Native culture of the area has been well-documented in several reports including McKennan (1959), Cook (1969), Guedon (1975), and Shinkwin (1975).~~

1. Site Number - UTN 42-1
2. English Name of Site Fish Creek
3. Map Reference TANACROSS T19N/R10E SE 1/4

COMMENTS

This was a traditional settlement of the Mansfield Indians of the Upper Tanana region dating at least to the late 19th century. The importance of similar settlements in the Native culture has been adequately documented in

several reports including McKennan (1959), Cook (1969), Guedon (1975), and Shinkwin (1975).

1. Site Number - UTN 25-2
2. English Name of Site Caribou Fence
3. Map Reference TANACROSS T21N/R12E Midline

COMMENTS

This caribou fence is one of the most important traditional structures of the Native people now living at Tanacross and Dot Lake. People would come together every fall to hunt and dry caribou meat near the caribou fence located on the hill. The importance of caribou hunting in the Native culture has been well-documented by R. McKennan (1959) in his book The Upper Tanana Indians.

1. Site Number - UTN 25-1
2. English Name of Site Long Cabin
3. Map Reference TANACROSS T22N/R12E NE1/4

COMMENTS

Long Cabin is one of the most important traditional camps of the Native people now living at Tanacross and Dot Lake. People would come together every fall to hunt and dry caribou meat near the caribou fence located on the hill. The importance of caribou hunting in the Native culture has been well-documented by R. McKennan (1959) in his book The Upper Tanana Indians.

1. Site Number - UTN 19
2. English Name of Site Paul's Cabin
3. Map Reference TANACROSS T21N/R8E SE1/4

COMMENTS

This was the site of Chief Peter Charles' village. It was reported to have been occupied in earlier days (late 19th century) as well. The importance of similar settlements in the upper Tanana region has been well-documented in several reports including McKennan (1959), Cook (1969), Guedon (1975), and Shinkwin (1975).

1. Site Number - UTN 15

2. English Name of Site Crow Nest Old Man's Place
3. Map Reference TANACROSS T22N/R10E border NE/NW1/4

COMMENTS

A traditional chief of the Mansfield area, Crow Nest Old Man, used to reside at this camp year-round. As many as 30 people would congregate at certain times during the year and live at his camp. He reportedly lived in a traditional style moss house (see McKennan 1959). The site could make a significant contribution to the past life ways the Upper Tanana Indians.

1. Site Number - UTN 17
2. English Name of Site Dixhand'
3. Map Reference TANACROSS T19N/R10E NE1/4

COMMENTS

This abandoned village is one of the most significant settlements of the Upper Tanana Indians. The site is known to have been occupied as early as 400 B.C., later in the 12th and 16th centuries and during the late 19th century (Shinkwin 1975). The site has also provided much valuable information on the earlier life ways of the people at various times during the last 2300 years and plays a significant role in the oral traditions of the people today who regard the site as their ancestors' home.

1. Site Number - UTN 13
2. English Name of Site Big Hill
3. Map Reference TANACROSS T21N/R11E SE1/4

COMMENTS

Big Hill is one of the most important traditional camps of the Native people now living at Tanacross and Dot Lake. People would come together every fall to hunt and dry caribou meat near the caribou fence located on the hill. The importance of caribou hunting in the Native culture has been well-documented by R. McKennan (1959) in his book The Upper Tanana Indians.

1. Site Number - UTN 14
2. English Name of Site Cemetery

3. Map Reference TANACROSS T21N/R10E SW1/4

COMMENTS

A Native cemetery containing several graves is located at this site.

1. Site Number - UTN 11

2. English Name of Site Fish Lake

3. Map Reference TANACROSS T25N/R31E border SE, SW1/4

COMMENTS

Fish Lake was a traditional hunting settlement of the early 20th century Kechumstuk and Mansfield Indians. It was reported to be the "real hunting place" of traditional Chief Andrew Isaac of the Tanana Chiefs Conference.

1. Site Number - UTN 12

2. English Name of Site Camp

3. Map Reference TANACROSS T24N/R13E NE1/4

COMMENTS

This was a traditional spring camp of the Upper Tanana Indians during the early 20th century. Important chiefs from Healy Lake, Sam Lake and Mentasta would frequently meet at the site around the first of April to hunt in the area. The importance of similar settlements in the Native culture has been well-documented in several reports including McKennan (1959), Cook (1969), Guedon (1975) and Shinkwin (1975).

1. Site Number - UTN 10

2. English Name of Site Grave

3. Map Reference TANACROSS T25N/R12E SW1/4

COMMENTS

Native grave.

1. Site Number - NWY 9

2. English Name of Site Mirror Creek
3. Map Reference NABESNA T10N/R22E SW1/4

COMMENTS

This was a traditional Native encampment of the Scottie Creek band of Indians. Their population was reported in 1929 as 25 persons (McKenna 1959:18). The site was significant in the annual round of subsistence activities in the traditional culture. The site could provide valuable information on the essentially unknown past life ways of the Scottie Creek band.

1. Site Number - NWY 11
2. English Name of Site High Cache
3. Map Reference NABESNA T10N/R23E NW1/4

COMMENTS

This site was a traditional settlement of the Scottie Creek band of Indians. Their population was reported in 1929 as 25 persons (McKenna 1959:18). A few remaining descendants of this band currently reside in Norhtway. The site was significant in the annual round of subsistence activities in the traditional culture as a place for obtaining fish and meat and storing it. Although R. McKenna has written an excellent monograph on the past lifeways of the Upper Tanana, he was unable to record any substantial information specifically for the Scottie Creek band. The site could provide valuable information on the essentially unknown past life ways of these people.

1. Site Number - NWY 5
2. English Name of Site Camp
3. Map Reference NABESNA T11N/R19E NE1/4

COMMENTS

This was a traditional fall encampment of the Mouth of Nabesna band of Indians. Their population was reported in 1929 as 59 persons (McKenna 1959:18). The site was significant in the annual round of subsistence activities in the traditional culture as a place for obtaining moose and caribou. The site is known to have been occupied throughout most of the 20th century. Not only is the site significant to Native people today, but it is likely to yield archeological information about the past life ways of the people.

1. Site Number - NWY 6

2. English Name of Site Kathakne
3. Map Reference NABESNA T14N/R19E SW1/4

COMMENTS

This site constituted a summer settlement of the Mouth of Nabesna band of Indians. Their population was reported in 1929 as 59 persons (McKenna 1959:18). This was one of the most significant sites in their traditional culture for fishing as it still is today. In the past caribou migrated near the site as well. The site could also provide significant archeological information on the changing adaptations of the people.

1. Site Number - NWY 3
2. English Name of Site Gardiner Creek
3. Map Reference NABESNA T12N/R21E border NW, SW1/4

COMMENTS

This was a traditional Native encampment of the Scottie Creek band of Indians. Their population was reported in 1929 as 25 persons (McKenna 1959:18). The site was significant in the annual round of subsistence activities in the traditional culture. The site could provide valuable information on the essentially unknown past life ways of the Scottie Creek band.

1. Site Number - NWY 4
2. English Name of Site Tenmile
3. Map Reference NABESNA T13N/R20E border NE, NW1/4

COMMENTS

This was a traditional fall encampment of the Mouth of Nabesna band of Indian. Their population was reported in 1929 as 59 persons (McKenna 1959:18). The site was significant in the annual round of subsistence activities in the traditional culture as a place for obtaining fall fish such as pike and lincod. The site is known to have been occupied throughout the 20th century. Not only is the site significant to many Native people today, but it is likely to yield archeological information about the past life ways of the people.

Appendix 4

Water Use Survey

The Attached use survey for lakes in the Northway area was sent to 206 guides, air carriers, hunters, fishermen, miners, and outdoor user groups in 1982.

Twenty-six surveys were returned with statements regarding use of lakes in the Northway area. Of these surveys, nineteen respondents had never used the lakes, and eleven respondents used or presently use the lakes. Twelve surveys were returned non-deliverable.

The returned surveys show continuous use of the lakes since 1946. Most use has been in the spring, summer, and fall months, and a wide variety of watercraft and float planes have been used on the lakes. The attached sample questionnaire includes the statistical results of all the returned water use surveys. Means of transportation most common are rafts and canoes in addition to float plane use.

WATER USE SURVEY

1. Have you ever used this waterbody? Yes 11 No

2. During which years have you used this waterbody? (Please circle all that apply.)

1920 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
 40 41 42 43 44 45 (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60)
(61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81)

3. During which times of the year have you used this waterbody? (Please circle months that apply.)

(winter) Nov 1 Dec 0 Jan 1 Feb 2 (spring/breakup) Mar 4 Apr 2 May 4 (summer) Jun 7 Jul 7 Aug 8
 (fall/freezeup) Sept 9 Oct 7

4. What means of transportation have you used on this waterbody? (Please indicate all that apply.)

small watercraft

raft 6 canoe 4 kayak other 1

For what purpose? (Please indicate all that apply.)

floating 2 hunting 9 fishing: commercial 1 subsistence 3 sport 8

trapping 2 mining 1 commercial transport: freight mail people 1

other

How much weight can your watercraft carry? 600-2,000 pounds

intermediate watercraft

riverboat: jet-unit 1 skag lift 1

airboat dory other

For what purpose? (Please indicate all that apply.)

floating 1 hunting 4 fishing: commercial 1 subsistence 2 sport 2

trapping mining commercial transport: freight mail people

other

How much weight can your watercraft carry? 600-2,000 pounds

large watercraft (30 feet and longer)

fishing boat barge other

For what purpose (Please indicate all that apply.)

floating hunting fishing: commercial subsistence sport

trapping mining commercial transport: freight mail people

other

How much weight can your watercraft carry? pounds

other means of transportation (including winter use)

airplane: floats 8 wheels 3 skis 9

snowmachine 3 all-terrain vehicle 1 snowshoes 1 skis dog team

other

For what purpose? (Please indicate all that apply.)

floating 1 hunting 9 fishing: commercial 2 subsistence 2 sport 8

trapping 2 mining 1 commercial transport: freight mail people

other

How much weight did you carry? 300-2,000 pounds

5. Do you know anyone else who has used this waterbody? If so, who?

How may they be reached?

6. How can we reach you for further information?

References Cited

Andrews, Elizabeth F.

1977 Report on the Cultural Resources of the Doyon Region, Central Alaska. 2 Vols. Anthropology and Historic Preservation, Cooperative Park Studies Unit, University of Alaska, Fairbanks. Occasional Paper No. 5.

Breaser, Steve

1982 Personal Communication.

Carson, Jim

1982 Personal Communication.

Clinton, James R.

1976 Letter dated May 19, to Anchorage District Office, Bureau of Land Management. On file with the Bureau of Land Management 40-mile Resource Area Office, Northway navigability file, Tok.

Grangaard, Daniel

1982 Personal Communication.

Grangaard, Daniel and David Kellyhouse

1982 Personal Communication.

Griffin, F.

1982 Personal Communication.

Guedon, Marie Francoise

1974 People of Tetlin, Why are you Singing? Ethnology Division Paper, No. 9, National Musuem of Man, National Museums of Canada, Ottawa.

James, Red

1982 Personal Communication.

Kellyhouse, David

1982 Personal Communication.

Luiten, Edward

1975 Letter dated February 26, to Fairbanks District Office, Bureau of Land Management. On file with the Bureau of Land Management 40-mile Resources Area Office, Northway navigability file, Tok.

Lowell, Ted

1979 Transcript of oral history interview. On file with Alaska Department of Natural Resources, Division of Research and Development, waterbody historical files, Anchorage.

Martinuk, John

1982 Personal Communication.

McKenna, Robert

1932 The Upper Tanana Indians, Alaska. Ph.D. dissertation, Harvard University.

1959 The Upper Tanana Indians. New Haven: Yale University Publications in Anthropology No. 55.

Northway, Della

1975 Letter dated May 6, to Doyon, Limited. On file with Lands Department, Doyon, Limited, Fairbanks.

Orth, Donald J.

1967 Dictionary of Alaska Place Names. United States Geological Survey, Professional Paper No. 567. Washington, D.C.: U.S. Government Printing Office.

Pitts, Roger S.

1972 The Changing Settlement Patterns and Housing Types of the Upper Tanana Indians. Masters Thesis, University of Alaska, Fairbanks.

Rainey, Froelich

1939 Archaeology in Central Alaska. Anthropological Papers of the American Museum of Natural History, 36:353-405.

Rapp, Richard H.

1976 Letter dated May 17, to Anchorage District Office, Bureau of Land Management. On file with the Bureau of Land Management

40-mile Resource Area Office, Northway navigability file,
Tok.

Sam, Roy F.

1975 Letter dated May 7, to Doyon, Limited. On file with Lands
Department, Doyon, Limited, Fairbanks.

Stout, Dave

1982 Personal Communication.

U.S. Bureau of Land Management

1975 Navigability Investigation Report on Yarger Lake. On file
with the Bureau of Land Management 40-mile Resource Area
Office, Northway navigability file, Tok.

n.d.a. Native allotment report. On file in the public information
office, Alaska State Office, Anchorage.

n.d.b. Native allotment report. On file in the public information
office, Alaska State Office, Anchorage.

n.d.c. Native allotment report. On file in the public information
office, Alaska State Office, Anchorage.

Vitt, Ramon B.

1971 Hunting Practices of the Upper Tanana Athapaskans. Masters
Thesis, University of Alaska, Fairbanks.

BACK TO SUTTON, WHERE DAVE WAS WORKING ON THE NEW HIGHWAY. SUTTON IS THE MAIN CAMP AND THE END OF THE RAILS. THE RAILROAD TURNS TO THE LEFT FOR JONESVILLE AND THE COAL FIELDS. WE CROSSED MOOSE CREEK, A LARGE STREAM WHERE THEY HAVE RECENTLY FOUND GOOD COAL, BELOW SUTTON. (P65) PILING HAS BEEN DRIVEN AT MOOSE, GRANITE, AND KING RIVERS FOR NEW BRIDGES, BUT THE MATERIAL HAS NOT COME IN FROM THE OUTSIDE. THEY ARE USING TEMPORARY BRIDGES AT THIS TIME. (P66)

9857 MAIN MOOSE CREEK MOOSE CREEK

REFN 03496 956
 STOR 161039501707000361000062200040
 MOUT N620500 W1453000 C030N 0010N 06
 LUPR 53 TAZZINA RIVER

KEYW NO TRAFFIC, LAND TRANSPORT
 ABST IN SAM JOHNSON'S "ROADS AND TRAILS IN ALASKA", A 1956 REPORT STATED THAT THE BRIDGE OVER MOOSE CREEK, MILE 186-2 GLENN HWY WAS COMPLETED. (P131)

9858 MAIN MOOSE CREEK MOOSE CREEK

REFN 03623 00001 961
 STOR 1608016001900000170
 MOUT N614027 W1490209 S180N 0020E 02
 LUPR 52 MATANUSKA RIVER

KEYW RECREATION, NO TRAFFIC, MAP
 ABST ON A LIST AND MAP OF 1961 CAMPGROUNDS AND PICNIC HAYSIDES OF THE STATE OF ALASKA, THIS SITE OFFERS HUNTING AND FISHING AS AN ATTRACTION ON MILE 54.5 GLENN HIGHWAY.

9859 MAIN MOOSE CREEK MOOSE CREEK

REFN 03807 915
 STOR 160339907005001230001069302290051300240029800080084000510
 MOUT N645527 W1480430 F010N 0030M 12
 LUPR 35 CHAIANIKA RIVER

KEYW MINING, NO TRAFFIC
 ABST CRUISES AND ELDON PROPERTY LOCATED ON MOOSE CREEK EMPLOYED FIVE MEN IN THE MINE AND ONE IN THE MILL, MINING AND MILLING SEVEN TONS OF ORE PER DAY FROM A LEDGE ONLY 8 INCHES WIDE ON THE BASIS OF AN 8-HR. SHIFT IN 1915.

9860 MAIN MOOSE CREEK MOOSE CREEK

REFN 04228 965
 STOR 1608016001900000170
 MOUT N614027 W1490209 S180N 0020E 02
 LUPR 52 MATANUSKA RIVER

KEYW PHOTO, VEGETATION, NO TRAFFIC
 ABST TWO PHOTOS ON PAGE 36 SHOW CAMP SITES. ONE IS PICTURED RIGHT ON THE EDGE OF MOOSE CREEK AND THE OTHER IS IN A SECLUDED WOODED AREA NEARBY.

9861 MAIN MOOSE CREEK MOOSE CREEK

REFN 04364 921
 STOR 160339907005001230001069302290051300240029800080084000510
 MOUT N645527 W1480430 F010N 0030M 12
 LUPR 35 TABANA RIVER

KEYW TRAFFIC, WATER CRAFT, PAST USAGE
 ABST MARGARET E. MURIE RECOUNTS MEMORIES OF A ROMANTIC MOTORBOAT RIDE ALONG MOOSE CREEK WITH HER SOON-TO-BE HUSBAND, OLAUS MURIE DURING THE SUMMER OF 1921. (P.95)

9862 MAIN MOOSE CREEK MOOSE CREEK

REFN 04880 920

