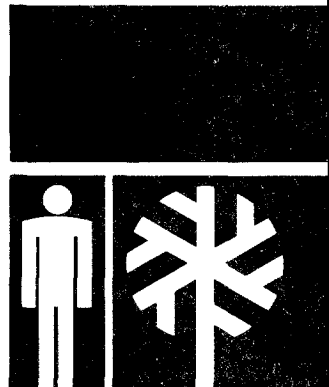
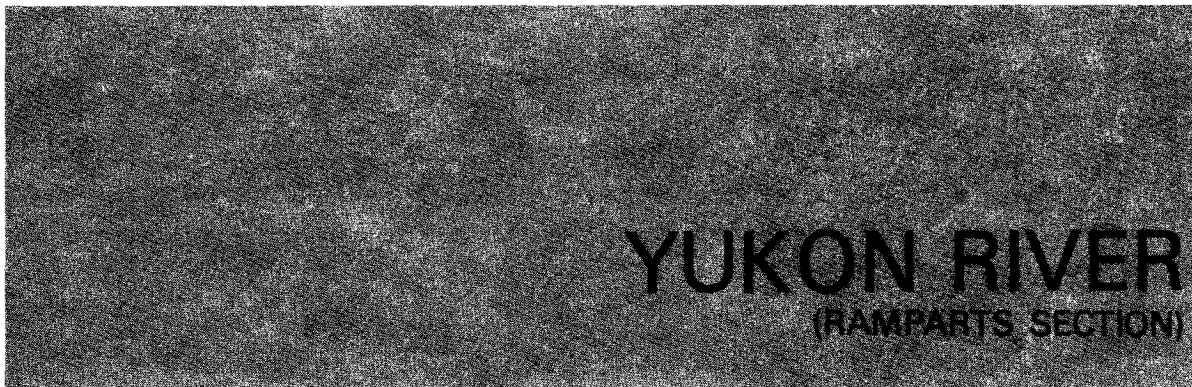


draft wild and scenic river study
october 1983



ALASKA

Publication of this document should not be construed as representing either approval or disapproval of the secretary of the interior. The purpose of this document is to provide information for further consideration by the National Park Service, the secretary of the interior, other federal and state agencies, and the public.

Prepared and published by the Denver Service Center

WILD AND SCENIC RIVER STUDY FOR THE YUKON RIVER
(RAMPARTS SECTION), ALASKA

Abstract: The Ramparts section of the Yukon River is under study as a possible addition to the National Wild and Scenic Rivers System. This study presents findings that the river segment is eligible for the national system, based on its free-flowing condition and outstanding historical significance. However, the study presents the conclusion that the river segment is nonsuitable for inclusion in the National Wild and Scenic Rivers System as a congressionally designated, federally administered river.

Comments on this draft study are invited from all interested parties and should be forwarded to the following official no later than 90 days from

_____:

Regional Director
Alaska Regional Office
National Park Service
2525 Gambell Street
Anchorage, Alaska 99503

SUMMARY OF FINDINGS AND CONCLUSIONS

The Ramparts section of the Yukon River was determined to be eligible for the National Wild and Scenic Rivers System. The river segment is free-flowing, and the area possesses historical characteristics of outstandingly remarkable value. However, the National Park Service considers the river segment unsuitable for the national system. This recommendation is based on the finding that little or no land within the study area is anticipated to remain in federal ownership after conveyances to the state of Alaska and native corporations. Neither the state nor involved native corporations favor designation. The secretary of the interior makes the final determination of whether an eligible river segment is suitable for the national system.

The National Park Service recommended and the secretary concurred that because of the historical and other values of the river, additional consideration should be given in the future to protecting the values along the entire Yukon River in Alaska, not just the Ramparts section. After land conveyances have been completed, a cooperative effort involving all landowners or managers should be initiated under the auspices of an interagency group such as the Alaska Land Use Council to determine what action, if any, might be taken to protect the river values. This proposal is described more fully in the "Options for Preserving the Values of the Yukon River" section.

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INTRODUCTION

PURPOSE OF THE STUDY

Study of the Ramparts section of the Yukon River as a possible addition to the National Wild and Scenic Rivers System was authorized by section 604 of the Alaska National Interest Lands Conservation Act (PL 96-487, hereafter cited as ANILCA), which amended section 5(a) of the Wild and Scenic Rivers Act (PL 90-542). The intent of Congress in establishing a National Wild and Scenic Rivers System is defined in the system's organic act:

It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dam and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.

The Ramparts section of the Yukon River was among 12 Alaskan rivers and river segments identified in ANILCA for study. The study is to be completed and submitted to Congress by September 1984 as the basis for a congressional decision regarding the possible inclusion of this section of the Yukon River in the national system.

The purposes of this study are to determine if the river is eligible for inclusion in the National Wild and Scenic River System; if eligible, to determine the appropriate classification for the river, based on its current condition as either wild, scenic, or recreational; if found eligible, to determine if the river is suitable for inclusion; and to identify a proposal and the reasonable alternatives for designation and management.

CONDUCT OF THE STUDY

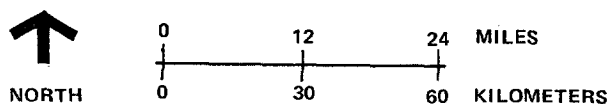
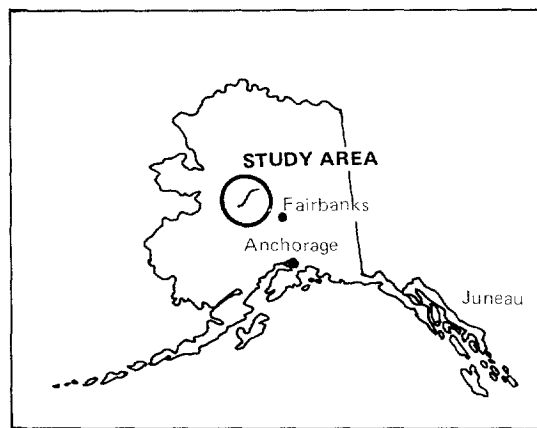
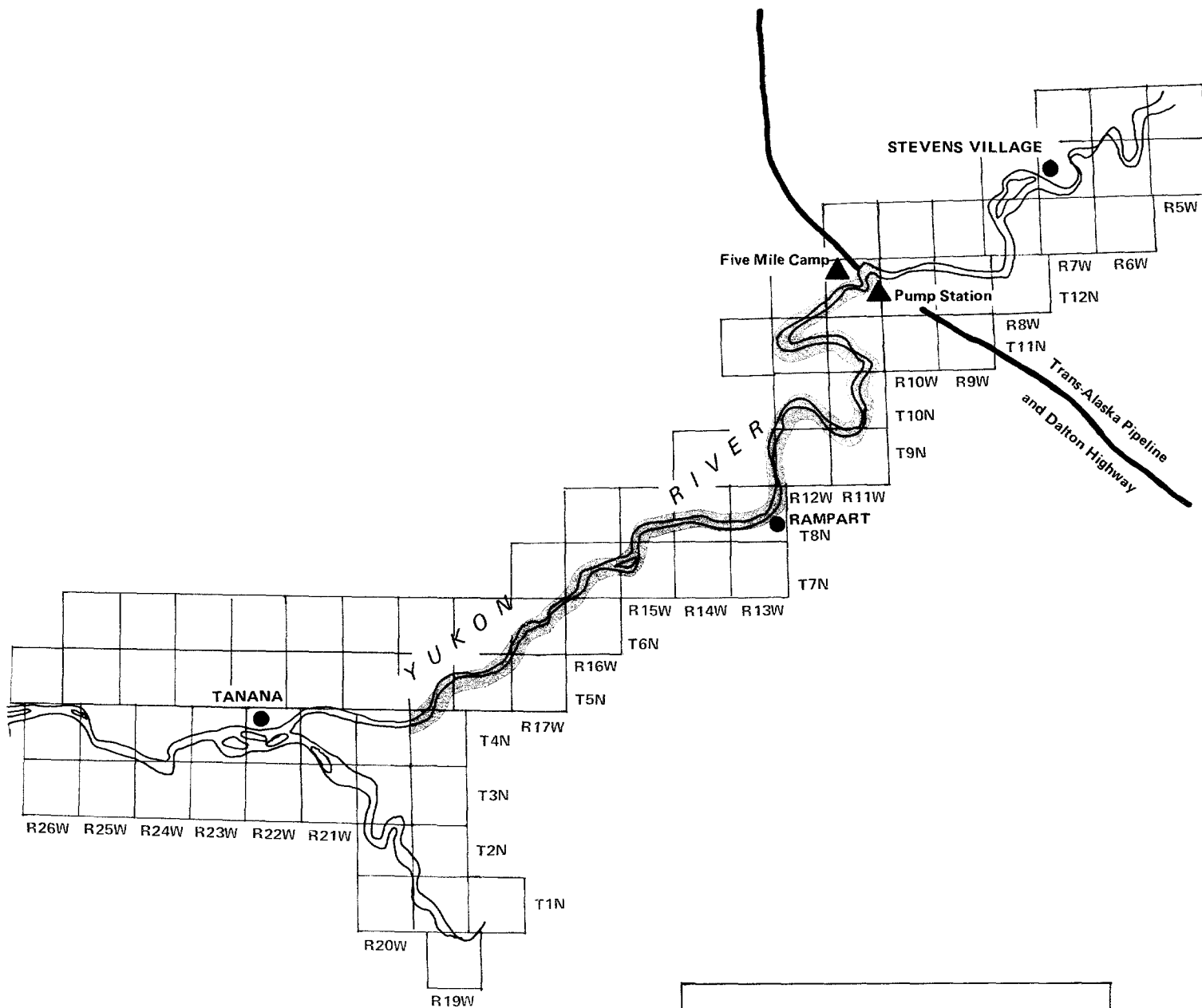
The Ramparts section of the Yukon River extends from the east boundary of T.12N, R.11W to the west boundary of T.4N, R.19W (see Study Area map). This corresponds roughly with the section of river from the Yukon River crossing down to Point Tilman near Sixteen Mile Island.

The study was initiated in March 1982, with announcements of the study sent to many agencies and organizations, followed by the issuance of a news release. A multidisciplinary study team, with representatives from state and federal agencies and native interests, assisted in the study. In

addition to the National Park Service the study team also included expertise from the Bureau of Land Management, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, Doyon Ltd., and Tanana Chiefs Conference, Inc. Other federal, state, and local agencies or interests were called upon to provide input.

In late June a field inspection was made of the river segment by some members of the study team to gather information and gain familiarity with the study area. In October the team met to evaluate the river segment's eligibility and suitability as a possible addition to the national system and to identify alternatives. Most of the information gathered for the study and evaluation came from agency files, discussions with individuals, and published reports. Public input was solicited from throughout the study region, and direct contact was made with some residents along the river. Community leaders have been kept informed about the study through letters and other means, and news releases have been issued.

The National Park Service, with input from the study team, determines whether the river is eligible for the National Wild and Scenic Rivers System, and for river segments that are eligible, makes a preliminary assessment of whether the river is suitable. A draft report is prepared and circulated for public and agency review. Following this review and after making appropriate revisions, the final report is prepared. The secretary of the interior makes a final determination of whether the river segment is suitable for the national system. The final report is submitted to the president who submits it along with his recommendations and proposals to Congress.



STUDY AREA

YUKON RIVER (RAMPARTS SECTION)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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FINDINGS AND CONCLUSIONS

A river segment must meet two criteria (set forth in section 2(b) of the Wild and Scenic Rivers Act) to be eligible for inclusion in the National Wild and Scenic Rivers System. It must be in a substantially free-flowing, natural condition, and it must possess at least one outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar value.

The Ramparts section of the Yukon River is free-flowing, and with its immediate land area, is substantially natural. The study team concluded that the river segment's one outstandingly remarkable value is its history. The entire Yukon River, including the Ramparts section, has served, and continues to serve, as a significant transportation corridor. Because of its usefulness as a transportation corridor, the Yukon River was the center of events associated with the settlement and development of interior Alaska and the Yukon Territory.

The Ramparts section is an outstanding demonstration of the historic role of the Yukon River. Most of the river corridor appears today as it did during white man's entry into the area. The historic gold rush era village of Rampart sits on the bank of the river. Other notable historic places include the site of the village of Chief Senatis (a prominent Native leader of the late 1800s) and "The Rapids," which marks the generally accepted boundary between the influence and activity of the Russian fur traders and the Hudson Bay Company. Activities along the river, including the use of fishwheels, contribute to the historic value of the area.

Other values examined, but not judged to be outstandingly remarkable, include fish, wildlife, geology, cultural resources, recreation, and scenery. Although the river is a major pathway for migrating fish, the habitat is not exceptional. Wildlife habitat is also not exceptional, nor is there a particularly wide diversity of species or high number of animals in the area. Wildlife species include moose, caribou, black bear, grizzly bear, wolf, various furbearers, and a variety of birds. The area is fairly typical of interior Alaska. One possible exception is that the rock bluffs along this segment of river provide nesting sites for peregrine falcons, an endangered species. Although visually appealing, the geologic features of the study area were not noted as unique or unusual. The area's rich cultural heritage is still evident. People living along the river pursue many traditional activities and maintain close ties with one another. The river serves as a water highway, tying people together physically and culturally. However, the same phenomenon is true of the entire Yukon River; consequently, the Ramparts section is not unusual. The river segment provides a good opportunity for various modes of river boat travel. A somewhat unique feature for Alaska is that the upper end of the section is accessible by road; however, it does not provide a diversity of exceptionally high-quality recreational opportunities. Good camping sites are limited, particularly on public land; sportfishing is limited to the tributaries and is not exceptional; and hiking opportunities are limited. The scenery within the study area, especially within the canyon, is pleasing but not noteworthy. There is not much variety of

landforms, nor are there many outstanding scenic vistas. The area viewed from the river is generally low terraces and low mountains bordering the river and occasional vertical bluffs. In comparison the scenery along the Yukon River above the village of Circle offers more landscape variety, including broad expanses of old floodplains and steep, deeply eroded high banks and cliffs.

Given a finding of eligibility (based on the river area's outstanding historic values), a preliminary assessment was made by the study team as to whether the river area would be suitable for addition to the national system. The preliminary assessment was based primarily on the landownership situation in the study area (see discussion under Landownership). Approximately 50 percent of the land within the study corridor has been selected by Doyon, Ltd., and Baan o yeel kon Corporation (Rampart village corporation) under provisions of the Alaska Native Claims Settlement Act. The remaining available land has been selected by the state of Alaska under provisions of the Alaska Statehood Act. Most, if not all, of the acreage within the study area selected by the native corporations is expected to eventually be conveyed to those corporations. The amount of state-selected lands within the study area, which will eventually be conveyed to the state, is unknown. The state claims to land along the Yukon River and similar claims throughout the state will have to be settled. The state owns the bed of the Yukon River up to the mean high-water line, based on the river's navigability status. A large number of privately owned native allotments are also along the study segment.

It appears that within a few years the federal government will own and manage little or no land within the study area. If Congress were to add the Ramparts section of the Yukon River to the National Wild and Scenic Rivers System, most or all of it would be administered by Doyon, Ltd., Baan o yeel kon Corporation, and the state of Alaska. Neither the affected native corporations nor the state of Alaska has expressed a desire in having the river segment designated to the national system nor in managing their lands as part of that system.

Based on the expected ownership of land within the study area and the absence of interest by future nonfederal landowners to manage their lands as part of the National Wild and Scenic Rivers System, the finding of the National Park Service is that the Ramparts section of the Yukon River is nonsuitable for inclusion in the national system.

OPTIONS FOR PRESERVING THE VALUES OF THE RAMPARTS SECTION OF THE YUKON RIVER

Although the Ramparts section of the Yukon River is not considered suitable for the National Wild and Scenic Rivers System, the river area has values deserving consideration and possibly protection. One of these values is history. Following are three options identified by the study team. These are activities that can be conducted under existing authorities without congressional or state legislative action and with no change in future landownership or managers. It is also intended that these options can be implemented under existing funding levels. These options are not mutually exclusive activities, nor is implementation restricted to any particular time frame.

LAND CLASSIFICATION

One option calls for classification of public lands in the river corridor to maintain public uses. It is impossible to say exactly how much land within the study corridor will become state owned and how little, if any, will be retained by the federal government and remain under the Bureau of Land Management's jurisdiction. Some of the land selected by the state is subject to previous withdrawals, such as the utility corridor and prior native corporation selections. However, the state could end up with ownership of approximately half the lands within the Ramparts section.

The state has a number of legislative and administrative options available to preserve the cultural and/or natural attributes of future state lands along the Ramparts section. For example, under authority of AS 38.04.015 (Alaska Statutes), the state may retain state land in public ownership for beneficial uses such as subsistence, forestry, sport hunting, and fishing. Under the same authority, land may be retained in public ownership to protect critical wildlife habitat and areas of special scenic, recreational, scientific, and other environmental concerns. Under authority of AS 38.04.070, the state may classify state land into various management categories. Title 11, Chapter 55 of the Alaska Administrative Code establishes a system of state land classification based on a land use planning process. Included among the many categories are public recreation land and wildlife habitat land. The primary goal for wildlife habitat land is maintenance of the habitat's productivity.

If a portion of the land remains in federal ownership, the Bureau of Land Management (BLM) also has the authority to protect the cultural and/or natural attributes of public lands within the Ramparts section. The land may be classified in BLM's land use planning process as suitable for retention, thereby keeping the lands in public ownership to serve public purposes.

YUKON RIVER HISTORICAL THEME STUDY

A second option involves an interagency study of the entire Yukon River within Alaska. The entire river, more than any one particular section, has had an important role in the history of Alaska and the Yukon Territory. The river today continues to play an important role as a travel route, transportation corridor, and a concentrated zone of human activity. However, the location of sites and the relationship between events, places, and people along the Yukon River in Alaska has not been systematically examined and documented. A study could address opportunities for preservation of significant sites; coordinated efforts of landowners/managers (federal, state, local, native corporation, and individual) to preserve certain cultural and other values of the river corridor; and universal interest among landowners/managers along the Yukon River to commemorate and possibly preserve certain values of the river.

Because a variety of landowners/managers are along the river, the proposed study should be conducted by a multiagency organization. The Alaska Land Use Council may be the appropriate organization. A similar study is already underway on the Yukon River in Canada, and coordination between the two countries would be expected.

NOMINATION OF POTENTIALLY ELIGIBLE SITES TO THE NATIONAL REGISTER OF HISTORIC PLACES

A third option calls for special nomination of historic sites. The National Register of Historic Places is the official list of the nation's cultural resources worthy of preservation. Listing in the National Register makes private property owners eligible to be considered for federal grants-in-aid for historic preservation, provides limited protection from federal programs and projects, and makes owners who rehabilitate listed properties eligible for federal tax benefits. Request for nomination to the National Register is a voluntary action taken by property owners. The sites that appear to be most apparently eligible are the village of Rampart or individual structures within the village, the site of Chief Senatis former village, and the area surrounding "The Rapids."

THE REGION

PHYSICAL SETTING

The study area lies within interior Alaska, roughly in the center of the state. The topography is characterized by low mountains and hills dissected by the Yukon River and its tributaries. Mountains immediately north of the river vary in height from 3,000 to 5,500 feet and those south of the river up to 3,800 feet. The area lies within the boreal forest region. Upriver from the Ramparts section lies the broad Yukon Flats lowland. Below the Ramparts section, the river flows through low rolling hills before reaching the broad lowlands of the delta. Major tributaries within or near the study segment include the Tanana, Ray, and Dall rivers and Hess Creek. The village of Rampart lies approximately 85 air miles northwest of Fairbanks.

CLIMATE

The region has a continental climate with extreme variations in temperature. Extremes at Rampart have ranged from 97°F to minus 68°F. The normal temperature range at Rampart during the summer is 37°F to 71°F and minus 30°F to 16°F in winter (Selkregg 1976). Rain and snow measure 12 and 45 inches respectively per year in Rampart. On the average the earliest 32°F temperature in Tanana occurs in mid-August, and the latest occurs in late May. There is an average of 81 days each year without freezing temperatures (Selkregg 1976).

SOCIOECONOMIC CHARACTERISTICS

Population

The population centers within or near the study area include Rampart, Tanana, and Stevens Village. A number of seasonal fish camps, some with permanent structures, are along the Yukon River and its tributaries. During the summer of 1982, 46 camps were on the river between the Yukon River Bridge and Tanana. People occupying these camps maintain permanent residence in the above villages and other cities. An unknown number of households from Tanana and Rampart also use the river area but operate from a village base rather than a seasonal camp.

Table 1 shows population changes for the area from 1970 to 1980. Table 2 shows the distribution of fish camps along the Yukon River.

Table 1: Population Changes

	<u>1970</u>	<u>1980</u>	<u>% Change</u>
Rampart	36	50	+39%
Tanana	406	388	- 4%
Stevens Village	74	96	+30%
Yukon-Koyukuk Census Region	7,045	7,873	+12%
Statewide Totals	302,583	401,851	+33%

Source: U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population, volume 1, Alaska, PC80-1-A3, pages 3-14.

Table 2: Permanent Household Residences
for 46 Yukon-Ramparts Fish Camps

<u>Permanent Residence</u>	<u>Number of Camps</u>
Rampart	6
Stevens Village	1
Tanana	12
Yukon or Tozitna River	4
Fairbanks	12
Manley	1
Nenana	1
Unknown	<u>9</u>
TOTAL	46

Source: Alaska Department of Fish and Game, Division of Subsistence, Fairbanks, "Use of the Yukon Ramparts for Subsistence Fishing and Other Activities--Preliminary Findings," October 1982.

Economy

The economy of interior Alaska is still largely supported by a dependence on subsistence resources. Although construction of the trans-Alaska pipeline, the Native Claims Settlement Act, community development, and other events have influenced the economy, many residents prefer to spend time in both subsistence and wage employment activities.

Employment statistics for 1980 show an annual average civilian labor force of 2,088 people for the Yukon/Koyukuk Census Division (compared to 187,000 statewide). The annual average unemployment rate is 16.4 percent compared to 9.6 percent statewide. The peak unemployment for 1980 was 20.4 percent in March and the low was 11.9 percent in

September (Alaska Department of Labor, Bureau of Labor Statistics 1981). Nonagriculture wage and salary employment in 1978 for the Yukon-Koyukuk region was distributed as follows: mining 6 percent; construction 3 percent; transportation, communications, and public utilities 38 percent; retail trade 6 percent; government 36 percent; and other 9 percent (Alaska Department of Labor 1980).

Although subsistence continues to be the mainstay for much of the population within the region, cash and subsistence economies are closely interrelated in the rural areas. Most rural residents participate in both economies. Variations in lifestyles among residents mostly depend on the degree to which they ordinarily pursue subsistence activities as opposed to wage activities (University of Alaska 1978).

LAND USE

Land use within the region can generally be characterized as intermittent. Uses include recreation, sport hunting and fishing, subsistence, seasonal residences, and resource exploration. The exception is within villages such as Tanana, Rampart, and Stevens Village where the land is used for concentrated residential and limited service and industrial uses (Selkregg 1976).

Subsistence uses include fishing, hunting, and trapping, and gathering food, fuel, and building materials. The activities tend to be concentrated around villages and on the rivers. The rivers provide the means for year-round transportation and places of concentration of harvestable resources.

Agriculture is not a major land use. In the early 1900s, 90 acres of land were cultivated across the river from Rampart for an agricultural experimental station. Although several crops were successfully grown here, the station was closed in 1925. Agriculture within the area is now limited to home gardens within the villages and some of the scattered residences and seasonal camps.

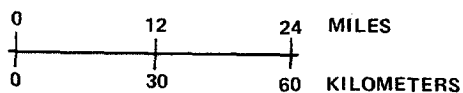
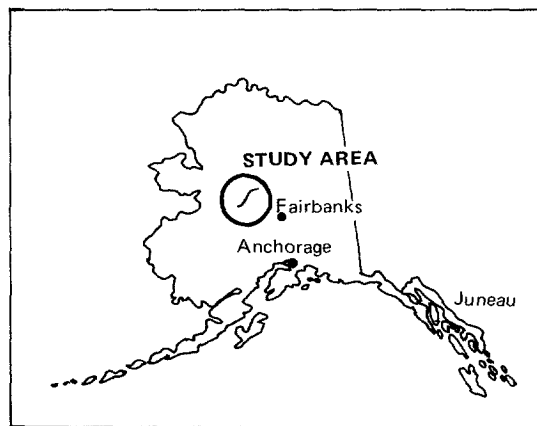
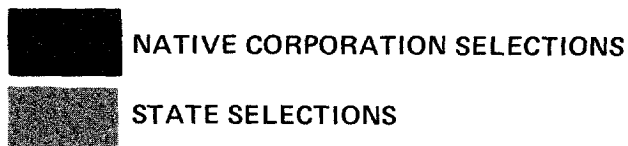
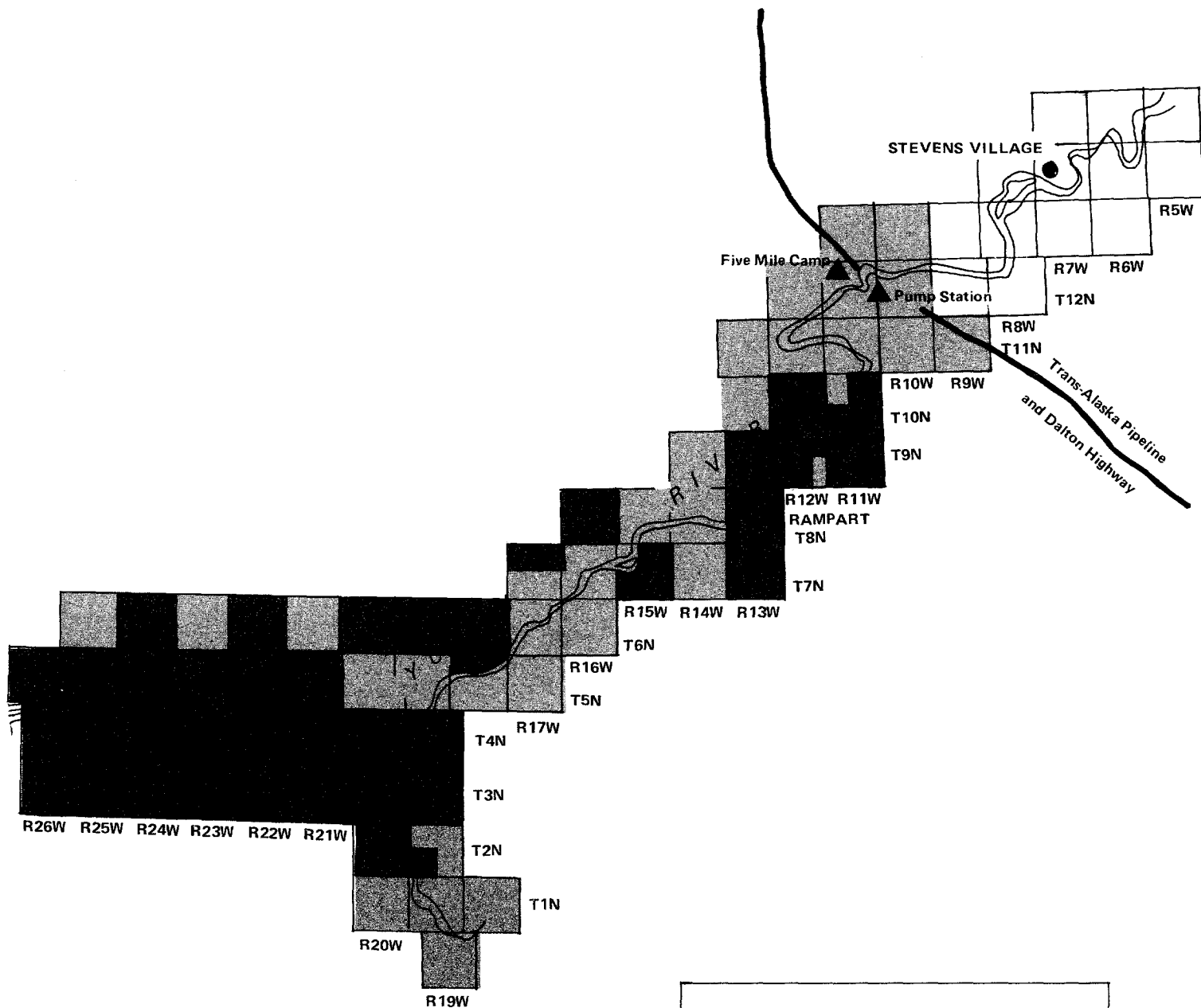
Use of the region's forest is on a small scale. The largest use is for fuel. Other uses include some log home construction and other construction and subsistence uses. Small trees or saplings are commonly used around the camps for fishwheels, drying racks, and other needs. Generally the forests within the region are discontinuous and appear in belts or ribbons along the streams, with some timber stands on lower slopes and low benchlands. The most substantial timber volumes are found within 2 miles of the banks of the major watercourses (U.S. Department of the Interior, Bureau of Land Management undated).

Exploration for minerals and petroleum is a continuing activity within the region. Deposits of various minerals such as tin, lead, tungsten, gold, silver, chromium, zinc, and antimony are known or suspected to occur within the region. Gold mining takes place within the study area, and coal deposits have been mined in the past (Selkregg 1976).

Land Status

The major existing and potential landowners in the region are the federal government, state of Alaska, and native corporations. In addition to many individual native allotments, the native landowners include Doyon, Ltd., and several village corporations. Doyon, Ltd., owns or will own a large amount of surface and subsurface estate, including the subsurface of lands conveyed to village corporations. Village corporation landowners within or close to the study area include Baan o yeel kon Corporation (Rampart), Tozitna, Ltd. (Tanana); Dinyea Corporation (Stevens Village); Bean Ridge Corporation (Manley Hot Springs); and Seth-De-Ya-Ah Corporation (Minto). The state of Alaska owns the bed of all navigable water bodies in the region, including that of the Yukon River. The state has also selected much of the available land area, including lands along the Ramparts section of the Yukon River. The Bureau of Land Management currently manages most of the federal land in the region, including federal lands within the study area. Upriver from the study area is the Yukon Flats National Wildlife Refuge and downriver is the Nowitna National Wildlife Refuge, both managed by the Fish and Wildlife Service.

All except the lower 3 miles of the study area are part of a 9-million-acre powersite classification issued by the secretary of the interior on January 5, 1965 (Public Land Order no. 3520). This classification is for the Rampart Canyon Dam and Reservoir project, and it maintains certain future rights for the use of these lands for a hydroelectric project. Other uses and land withdrawals are not precluded. For example the classification does not preclude native village selections under provisions of section 11(a)(1) of the Alaska Native Claims Settlement Act. However, any of these lands that the state obtains title to under provisions of the Alaska Statehood Act would be subject to a covenant reserving the right to use the lands for a power dam and reservoir project.



LAND STATUS

YUKON RIVER (RAMPARTS SECTION)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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THE STUDY AREA

RIVER SETTING

The Yukon River is the largest river in Alaska and the fifth largest river in North America. It originates in British Columbia, Canada, and flows 2,300 miles to the Bering Sea; nearly 1,300 miles are in Alaska. Below Stevens Village, the river leaves the broad plain of poorly drained alluvial deposits containing numerous lakes, potholes, and oxbows known as the Yukon Flats and flows through an area of low mountains and hills. Here the river is once again well defined and confined to a single channel within a narrow valley and high riverbanks. The Ramparts section is contained within this portion of the river. The upstream boundary of the study area is near the Yukon River Bridge. The downstream boundary is the west side of T4N, R19W, Fairbanks Meridian, approximately 2 miles upriver from Sixteen Mile Island near Point Tilman.

The landscape within the study area is dominated by the wide river, rolling hills, and occasional steep-walled bluffs. The river flows between vertical rock bluffs that rise near the river edge from low terraces. Between the bluffs these terraces are covered with thick stands of spruce and mixed hardwoods, including birch, aspen, poplar, and willow. Low mountains form the distant backdrop. Pump station 6, setting on a ridge overlooking the Yukon River Bridge, is visible for 4 miles downriver. Several large, vegetated islands appear along the river.

The most impressive and canyon-like portion of this segment is known as the "Ramparts of the Yukon." This is about a 15-mile-long section that lies midway between the villages of Rampart and Tanana. Here the river passes between steep-sided banks and large rock outcroppings rising from the river's edge to join steep-sided, 1,000-foot-high ridges. In places where the valley is a little wider than the river itself, a canyon-like impression is created. Near Tanana the landscape becomes more open and rolling, with ridges much farther back from the river's edge.

An abundance of private fish camps and cabins are along the entire Ramparts section. The village of Rampart, with about 50 year-round residents, lies on the bank about midway along the study area.

GEOLOGY

The Yukon River in this area has eroded down into a folded belt of sedimentary rocks. The riverbed and bank are generally composed of well-sorted floodplain, terrace, and alluvial fan deposits normally associated with rivers. Away from the immediate riverbank the bedrock geology in the upper portion of the river segment is composed of volcanic and intrusive rocks of Jurassic, Triassic, and Permian age. Locally this complex includes Permian chert, shale, and siltstone. On the north side of the river near Rampart and on the south side downstream from Rampart are undifferentiated, unconsolidated deposits, most of which are Pleistocene in age, but much is recent. The steep slopes on the north side of the river, about midway between Rampart and Tanana, consist of

Cretaceous granitic rocks. The ridges and mountains on the north side of the river are composed primarily of early Paleozoic slate, phyllite, schist, graywacke, and quartzite. The entire area is underlain by discontinuous permafrost (Selkregg 1976).

VEGETATION AND SOILS

The principal vegetative communities within the study area are upland spruce/hardwood forest and bottomland spruce/poplar. The upland spruce/hardwood forest consists of white spruce with scattered birch or aspen on moderate south-facing slopes; while black spruce is found on northern exposures and poorly drained flat areas. The understory generally consists of spongy moss and low brush on the cool moist slopes, grasses on dry slopes, and willow and alder with dwarf birch in the high open forests near timberline. Very gravelly and stony loam soils predominate beneath this forest.

The lowland portions of the study area, including much of the islands, are predominantly a bottomland spruce/poplar community characterized by tall stands of white spruce with balsam poplar. The understory includes high and low shrubs and a carpet of ferns, mosses, and lichens. The soil is commonly silt loam to sandy loam with some deep fibrous peat. Stratified silt loam and sand are also found.

A lowbrush muskeg community dominates the low areas around major tributaries such as Hess Creek and Ray River. These areas contain nearly continuous stands of low brush or sedges and moss. Soils in such areas are commonly loams, silt loams, or stratified silt loam and fine sand. Fibrous peat extends into the permafrost in some areas (Selkregg 1976).

STREAMFLOW AND WATER QUALITY

The average annual runoff at Rampart is 128,000 cubic feet per second (cfs). The minimum flow is approximately 9,000 cfs, and the maximum recorded flow was 950,000 cfs, recorded in June 1964. Flows in the Yukon River rise rapidly during ice breakup in May and reach a peak in early June. The flow usually decreases until July and August, when summer rains and glacial melt again increase it. This increase is followed by declining water levels until freezeup in October. The river freezes to a depth of 5 to 6 feet in the canyon section of the Rampart segment. The average gradient of the river is less than 1 foot per mile (Selkregg 1976; Fish and Wildlife Service 1964).

High turbidity in the Yukon River results from active bank erosion throughout most of its length and from glacial silt contributed by several tributaries. Although pollution is not a major problem, localized minor health problems are created by trash and garbage dumped into the river. The river also carries logs and other debris.

WILDLIFE

The river segment flows through fairly typical habitat of interior Alaska. Although wildlife inhabit the area, the number or diversity is not unusual, nor is the habitat exceptionally high quality for any one species or variety of species. The following information is provided by the Alaska Department of Fish and Game.

Moose density in the study area is less than 0.3 moose per square mile. This low density is considered average for poor habitat types such as black spruce/bog. Caribou from the Ray Mountain herd are occasionally found along the river. This herd, numbering from 200 to 1,000 animals, is considered a small relict herd. Black bears are common along the entire Yukon River, including the Ramparts section. These bears are commonly attracted by fishing activities, such as around places where dumping of fish offal occurs. Grizzly bears are essentially a tundra species inhabiting the uplands outside the study area. They are occasionally attracted to the river. Wolves are in the study area, but no estimates are available on the number within the study area. Because the density of moose and other prey is not high, the wolf population is probably low.

There are no known concentrations of furbearers in the study area. The number of lynx, wolverine, and otter trapped in the area is not high compared to other areas of interior Alaska.

The variety of species and numbers of birds are similar to those in other segments of the Yukon River in interior Alaska. One notable species is the endangered peregrine falcon. Six occupied nesting sites were within the Ramparts section in 1981, although there are additional available sites (Mindell and Craighead 1981).

FISHERIES

The Ramparts section serves as a migration pathway for salmon populations in the upper Yukon drainage. The following table lists fish species in the Yukon River, including fish in the Yukon River drainage in Canada. The Ramparts section has not been surveyed for its particular species composition.

Table 3: Indigenous Fishes Found in the Yukon Area

<u>Scientific Name</u>	<u>Common Name</u>
<u>Lampetra japonica</u>	Arctic lamprey
<u>Stenodus leucichthys</u>	Sheefish
<u>Coregonus nasus</u>	Broad whitefish
<u>Coregonus pidschian</u>	Humpback whitefish
<u>Coregonus sardinella</u>	Least cisco
<u>Coregonus laurettae</u>	Bering cisco
<u>Prosopium cylindraceum</u>	Round whitefish
<u>Prosopium coulteri</u>	Pygmy whitefish
<u>Thymallus arcticus</u>	Arctic grayling
<u>Salvelinus namaycush</u>	Lake trout
<u>Salvelinus alpinus</u>	Arctic char
<u>Salvelinus malma</u>	Dolly varden
<u>Oncorhynchus tshawytschai</u>	King salmon
<u>Oncorhynchus nerka</u>	Red salmon
<u>Oncorhynchus kisutch</u>	Coho salmon
<u>Oncorhynchus gorbuscha</u>	Pink salmon
<u>Oncorhynchus keta</u>	Chum salmon
<u>Osmerus mordax dentex</u>	Rainbow smelt
<u>Hypomesus olidus</u>	Pond smelt
<u>Esox lucius</u>	Pike
<u>Dallia pectoralis</u>	Blackfish
<u>Couesius plumbeus</u>	Lake chub
<u>Catostomus catostomus</u>	Longnose Sucker
<u>Percopsis omiscomaycus</u>	Trout-Perch
<u>Lota lota</u>	Burbot, lush
<u>Pungitius pungitius</u>	Nine-Spine stickleback
<u>Cottus cognatus</u>	Slimy sculpin

Fish are harvested within the study area for commercial, subsistence, and sport purposes. The following data supplied by the Alaska Department of Fish and Game (ADF&G) shows the commercial salmon catch from 1974-1981 for district 334-50, which includes the study segment.

Table 4: Commercial Salmon Catches

	<u>Chum Salmon</u>	<u>Total Salmon</u>
1974	30,382	33,954
1975	40,209	43,086
1976	6,247	9,147
1977	26,801	31,068
1978	25,907	29,029
1979	57,282	60,802
1980	42,802	48,140
1981	95,929	102,381

Subsistence is the other major use of fish caught from this section of the river. Comparative Yukon River chum salmon subsistence catches for the villages of Tanana and Rampart range from 14,000 to 64,000 fish each year from 1961 through 1980. A smaller number of additional chum, king, and coho salmon are taken each year for subsistence under authority of a permit (data supplied by ADF&G).

Table 5: Subsistence Salmon Catches

<u>Year</u>	<u>Permits Issued</u>	<u>Reporting Catches</u>	<u>Kings</u>	<u>Chums</u>	<u>Cohos</u>
1974	29	1/	591	1,857	1,271
1975	19	1/	727	778	70
1976	28	18	531	974	--
1977	38	1/	467	2,567	--
1978	57	1/	1,333	9,735	--
1979	55	41	2,194	13,374	--
1980	70	67	1,350	6,488	36

1/ Information not available

CULTURAL VALUES

History

The Ramparts section of the Yukon River is the traditional home of the Athapascan Indians. When the first European explorers arrived in the area, they found the Kutchin Athapascan people, who had adapted to the harsh climate with a lifestyle of hunting, fishing, and trapping.

To the Europeans, the Yukon River provided a natural trade route into the heartland of interior Alaska. However, trade was limited on the river from 1842 to 1862 to as far as the mouth of the Tanana River because the Russian American Company believed that the condition of the rapids in the Ramparts section blocked further trade upriver.

In 1863, a Russian trader ventured above the mouth of the Tanana and proved that the Ramparts could be navigated. Thereafter, other parties crossed the barrier and in 1869 the Yukon, the first steamboat on the river, ascended the Ramparts with ease. The Yukon also carried a host of American traders, who took over the Russian American fur trading posts.

From the 1870s to the 1890s, the Alaska Commercial Company's small sternwheelers plied up the Yukon, supplying the posts and carrying an increasing number of prospectors. Schieflin Creek was the first area in the interior Alaska that was systematically prospected for gold. The search proved illusive, but gold was in the Rampart vicinity and caused a transformation of the Yukon River valley.

In 1893, gold was discovered in Minook Creek. Major discoveries occurred later, causing a stampede to the region, second only to the Klondike Gold Rush 800 miles upriver.

The community of Rampart was platted and reached a reported population of 2,000 in 1890. The community served as regional hub for interior Alaska until the gold strike near Fairbanks. During its zenith, Rampart had newspapers, a library, fire department, hospital, and a host of stores and businesses that were typical of mining camps.

At the turn of the century, the Yukon River was alive with activity. Over 100 steamboats plied the Yukon, stopping at the trading stations, woodlots, and communities. Smaller vessels, rafts, and makeshift rigs carried the prospectors and trappers.

As the gold rush era passed, traffic declined by World War I. The 1923 completion of the Alaska Railroad caused a major shift in interior trade routes and a final decline in the use of the Yukon River as a major corridor of commerce. The simultaneous introduction of airplanes caused the replacement of winter land routes by air mail, freight, and passenger service.

Today, Rampart's population has stabilized at approximately 100. The Kutchin, the majority of the region's population, continued their subsistence lifestyle. Rampart, with its historic cabins, position on the sloping riverbank, and its descendants of the pioneers, is a major reminder of Alaska's gold rush era. The river area's past is recalled by the historic cabins, fish camps, sites of former trading posts, and the names of geographic features.

"The Rapids" symbolically represent the one-time upstream limit of the Russian American Company influence and is also significant as the major geographic feature noted by travelers descending the Yukon River from the Yukon Flats to the mouth.

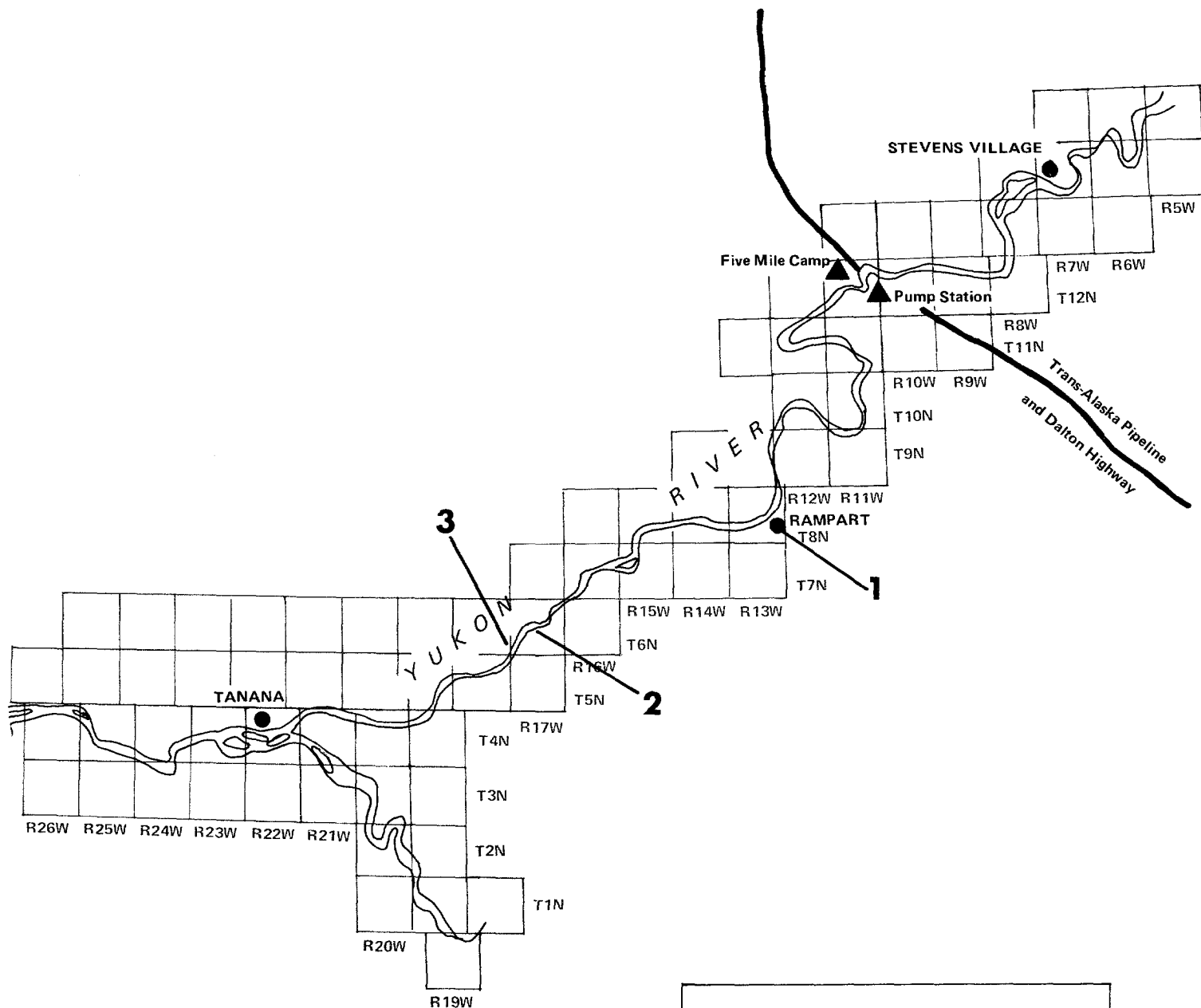
Archeology

There have been few archeological investigations along the Yukon River in the Ramparts section. Some survey work was completed in the area around "The Rapids" in the mid 1930s. Most of the sites explored were identified as fire hearth areas, and similar sites were explored a few miles downriver. Excavations turned up potsherds, bone fragments, ash, and charcoal. Although no time period could be assigned to most sites, two hearths contained material clearly of prehistoric origin (Andrews 1977).

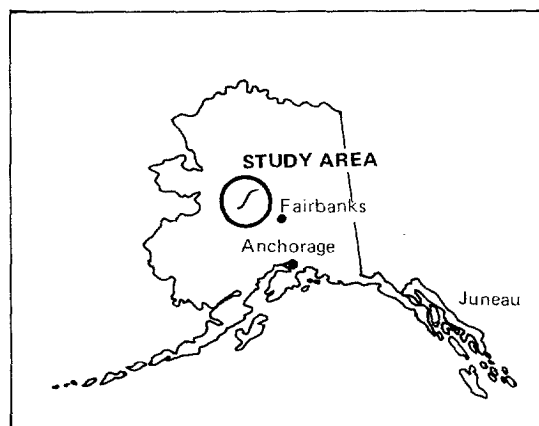
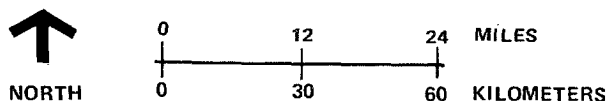
HUMAN USES

Access/Transportation

Access to the Ramparts section of the Yukon River is good. There is road access from Fairbanks, by way of the Elliot and Dawson highways, to the Yukon River Bridge. This is the intersection of central Alaska's



- 1** VILLAGE OF RAMPART
- 2** THE RAPIDS
- 3** SITE OF CHIEF SENATIS VILLAGE



PRINCIPAL HISTORIC SITES YUKON RIVER (RAMPARTS SECTION)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

two major transportation corridors, the Yukon River and the Dawson Highway. The crossing is about 135 road miles from Fairbanks. Aircraft landing strips are at Yukon Crossing, Rampart, and Tanana. The strip at Tanana is over 3,500 feet in length; the other two strips are less than 3,500 feet. Floatplanes can land and take off along most portions of the river segment. Tanana and Rampart are served by regularly scheduled air service from Fairbanks.

The Yukon River is navigable its entire length. The U.S. Army, Corps of Engineers, indicates that 7 feet is the controlling depth for navigation on the Yukon River as far upriver as Stevens Village (Alaska Department of Transportation and Public Facilities 1981). Continued transportation on the Yukon between Canada and the United States is provided for under article 26 of the 1871 Treaty of Washington, which provides that "the navigation of the rivers Yukon . . . shall forever remain free and open for purposes of commerce."

Three tug and barge operators are currently active on the middle and upper Yukon River and tributaries. During the last ten years these companies have transported over 30,000 tons annually. Five tugs and nine barges are operated between these three companies on the Yukon River system. Statistics are not available that distinguish how much traffic actually occurs on the Ramparts section. Petroleum products have historically accounted for 75 to 85 percent of the total tonnage. The remainder is composed of foodstuff (less than 2 percent); lumber and building materials (less than 4 percent); miscellaneous small shipments such as furniture and household goods (less than 10 percent); and other commodities (between 6 and 12 percent).

A study was conducted to determine the feasibility for a ferry operation to support fisheries, agriculture, recreation, and other activities on the lower Yukon, including the Ramparts section. Such an operation was determined not to be cost-effective, compared to the existing alternatives of tug and barge operations and air service (Alaska Department of Transportation and Public Facilities 1981).

The river segment is the highway for local travel between the Dawson Highway, the villages of Rampart and Tanana, and the many homesites and fish camps along the river. Not only is the river necessary for direct travel, but without it there could not be the sense of community that prevails among many camps along the river. People travel frequently back and forth carrying the news and keeping in touch with one another.

The river is frequently used as a landing strip for floatplanes. Numerous aircraft are active along the river, picking up harvested salmon during much of the summer.

Subsistence

Principal subsistence activities within the study area include fishing, hunting, trapping, and woodcutting. Because salmon fishing is currently the only well documented activity, it will be the primary focus of this discussion. Most of the information has been provided by the Alaska

Department of Fish and Game, Subsistence Division, and is based largely on observations and information gathered in August 1982 (Andrews 1982).

Observations made in August 1982 showed that along about 116 miles of the Yukon River between the Yukon River Bridge and Tanana there were 46 camps and 32 fishwheels and 2 gill nets at fishing sites. Many camps consist of a variety of pole structures such as smokehouses, drying racks, caches, and tents. Other camps consist of permanent structures such as log dwellings, some of which are occupied the year-round. At the time of the August survey, 31 of the 46 camps were occupied.

Alaska Department of Fish and Game data from 1981 show that 37 households from Tanana, 15 households from Rampart, and 24 households from Fairbanks fished for subsistence in the general study area. Tanana and Rampart households caught a total of 3,005 King salmon; 9,819 "summer" chum salmon; 36,190 "fall" chum salmon; 1,542 coho salmon; 17,791 whitefish; and 2,875 sheefish and fishwheels. Fairbanks households harvested 1,095 Kings, 4,501 "summer" chums, 7,527 "fall" chums, 6 cohos, 2,219 whitefish, and 384 sheefish. Most fish harvested by Tanana residents were taken upstream from the community.

Other natural resources besides fish within the study area are used for subsistence purposes. Timber is necessary for fuel to heat many homes and is used for burning to smoke and dry fish. It is also used in the construction of cabins. Saplings are widely used in the construction of fishwheels, which are the predominate gear used for salmon fishing. The land adjacent to the river is used for moose hunting and for trapping a variety of furbearing animals. The river is important for transportation, including travel to and from camps and between villages and movement of goods.

Recreation

The Ramparts section provides a very reasonable and representative portion of the Yukon River for the recreationist to experience. There is reasonably good access to and from the river, and the entire segment is boatable in a wide range of crafts. Road access to the river is available from Fairbanks via about 135 miles of the Elliott and Dalton highways. River travelers can conveniently take out at Tanana, which is served by scheduled commercial air service and charter air service, or travelers in suitable powerboats can travel up the Tanana River and take out on the highway at Nenana. Other alternatives include boating down Hess Creek from the Dalton Highway to the Yukon River and flying a floatplane to a number of places on the river, including Rampart.

Although suitable for any type watercraft commonly used in Alaska, the use of open canoes might be limited because of the size of the river, possible wind in the canyon areas, and the large debris commonly floating in the river. There are no whitewater rapids. When the water is low, some powerboats may have to maneuver to avoid shallow outcroppings in the area known as "The Rapids."

Other recreation attributes include the scenery and historical context of the area. The scenery is enhanced by the vertical relief and prominent cliffs near the Ray River, Raven Ridge, Moosehead Rack, and "The Rapids." The opportunity to travel a route of historical importance adds to the recreational experience.

Sportfishing is limited to the clearwater tributary streams. The opportunities for seeing wildlife such as bear, moose, fox, waterfowl, and other species are fair. The opportunity for seeing raptors is good. Overall wildlife viewing opportunities are not high. Opportunities for hiking away from the river are limited by the terrain, vegetation, and insects in the area away from the river.

The Bureau of Land Management has previously recommended that the south bank of the river near the Yukon River Bridge be reserved as a recreation site. In addition to providing access for river-related recreational activities, the site offers a scenic vista of the Yukon and a place to provide interpretation of the river's historic use during gold rush periods in the Klondike and the Central Brooks Range (University of Alaska 1976).

Agriculture/Forestry

There is a historical basis for agriculture in the study area. In 1900 clearing began for an agricultural experiment station near Rampart. By 1920, 90 acres of land were under cultivation. During the period of its operation until its closure in 1925, the Rampart station was one of the most successful in Alaska. One of the major objectives of the station was to breed grains and legumes. Potatoes, most vegetables, strawberries, flowers, and field crops such as sugar beets and buckwheat were also tested. The ability of these various crops to grow in Alaska was rated from moderately to highly successful (University of Alaska 1978). Agriculture development within the study area is limited to family garden plots and some small greenhouses.

In the past the forest within the study area provided fuel for the river steamer and wood for mining operations and other construction. Today's forest harvest is on a small scale, and the wood is primarily for traditional uses (see Subsistence section). Fuel is the most important use of wood within the study area. A few logs are also used in log home construction (University of Alaska 1978).

Water Resource Development

Although active consideration is no longer being given to the proposal for a major hydropower development, a study has been conducted for this portion of the Yukon River. Following more than a year of study, nearly 9 million acres of public lands along the Yukon River were withdrawn in 1965 by the secretary of the interior for powersite classification. Investigation of the engineering and economic feasibility of the proposed Ramparts Canyon power project was conducted jointly by the Department of the Interior and the Department of the Army. The proposed project

would have created a reservoir with a surface of about 10,600 square miles and an installed capacity of over 5 million kilowatts. The Ramparts project has been described as one of the great hydroelectric potentials of North America and the largest ever studied in the United States in terms of power production and reservoir size and capacity (Department of the Interior 1967).

The project was regarded to offer a combination of a favorable dam site, a seemingly favorable storage potential, and a major water supply. However, the project also has major adverse fish and wildlife effects, including creating a barrier to salmon migration and inundation of the Yukon Flats. Because of these significant adverse effects and no demand for the large blocks of the project power, the tremendous financial investment required for construction, and the availability of favorable, less costly power alternatives, construction of the Ramparts project was not recommended (Department of the Interior 1967).

The Ramparts project has essentially been precluded by Congress in its designation of the Yukon Flats National Wildlife Refuge.

Mineral Resources and Development

The active mineral claims within the study area are near or downstream from "The Rapids." According to file information maintained by the U.S. Bureau of Mines, there were 17 active placer claims along Bear Creek, 7 active placer claims along Morelock Creek, and 13 active lode claims along Quartz Creek in 1981. Not all of these claims are within the study area. The minerals include gold, silver, lead, and tin. Numerous claims are also along the creeks in the vicinity of Rampart, but all active claims are outside the study area.

Coal-bearing rocks are exposed for several miles along the south and east bank of the river near Rampart and on the west bank of the river opposite Hess Creek. The coal is subbituminous and probably of Late Cretaceous age. Apparently none is of sufficient thickness or quality to warrant development. However, at the Drew Mine opposite Hess Creek, 1,200 tons of coal were reportedly mined from two thin seams between 1897 and abandonment of the mine about 1900. The coal was used by river steamers (Selkregg 1976, Bureau of Mines 1963, and Collier 1903). The area through which the Ramparts section of the Yukon River flows is not known as a favorable petroleum province or sedimentary basin (Miller, et al. 1959).

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