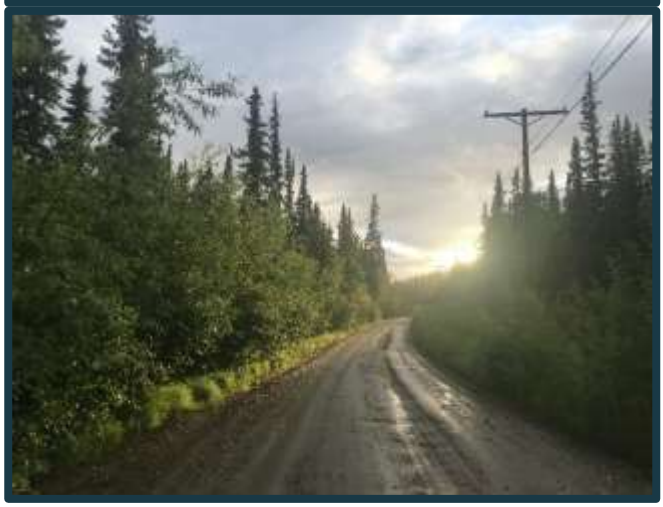


Regional Transportation Strategy

FOR RURAL VILLAGES LOCATED IN ALASKA'S INTERIOR

TABLE OF CONTENTS

TANANA CHIEFS CONFERENCE

Executive Board of Directors

Resolution No. 2019-07

ADOPTION OF TCC REGIONAL TRANSPORTATION STRATEGY

WHEREAS, Tanana Chiefs Conference is the regional Native non-profit corporation composed of 42 member villages and federally recognized Tribes in the Interior of Alaska; and

WHEREAS, TCC engaged and worked with TCC region tribal members and organizations in 2016 through 2019 to develop a Regional Transportation Strategy for the TCC region; and

WHEREAS, The Regional Transportation Strategy is a tool for community based and regionally driven transportation planning, with strategies and an implementation for creating safer roads and trails; and

WHEREAS, The Regional Transportation Strategy document will be used as a living document with annual updates, with a new document to be established every five years.

NOW THEREFORE BE IT RESOLVED the TCC Executive Board of Directors supports and approves the Regional Transportation Strategy.

CERTIFICATION

I hereby certify that this resolution was duly passed by the Tanana Chiefs Conference Executive Board of Directors on May 22, 2019 at Fairbanks, Alaska and a quorum was duly established.

Jerry Isaac

Secretary/Treasurer

Tanana Chiefs Conference

REGIONAL TRANSPORTATION GOALS

The top four transportation goals for the Tanana Chiefs Conference region was comprised of surveys, planning summits, and meetings with each of the six subregional boards. The top three specific needs of each of the six Subregions are listed on pages 85-86. All data collected from each subregion was subsequently combined to establish the top four goals for the TCC Region, and are as follows:

- ***Maintenance*** – Resurfacing existing roads and snow removal
  - Improve consistent general maintenance of roadways (graded, crowned, etc.), snowplowing, erosion control, brush cutting and resurfacing of roads and trails.
  - Secure additional funding for unmet road and trail maintenance needs and maintenance equipment for communities, as needed.
- ***Construction*** – Upgrade existing and new roads
  - Fix trails, drainage for roads/culverts, new gravel surfacing and rebuilding of current roads.
  - Secure additional funding to upgrade or construct new roads needed and identified by the communities.
- ***Safety*** – Brush clearing, river/lake travel, boats, etc.
  - Secure funding for the purchase of new street lights, safety sign, implement brush clearing to address low visibility, and update community safety plans.
  - Build transportation safety shelters between rural communities.
  - Assist Tribes with applying for tribal safety grants.
- ***Dust Control*** – Implement a Region-wide safety plan with an emphasis on dust control
  - Obtain letter of support/resolution from the participating Federally Recognized Tribes in the TCC region.
  - Research funding sources to chip seal or pave the main rural roads.
  - Submit proposals for grants to acquire the funds to chip seal rural dirt roads.

Road leading into Tetlin, December 12, 2016
Front Page: (Top) Tetlin Road, (Center) Yukon River in Ruby, (Bottom) Tanana Road

Disclaimer: While the data in this strategy is important and vital to our communities, it is important to note, that this Regional Transportation Strategy is compiled from data from across the TCC Region and does not reflect the views of, or compete with, any individual Tribe. Priorities are subject to change.

Tanana Chiefs Conference

TRANSPORTATION VISION

Promoting safe transportation systems with our Tribes.

Yukon River at Tanana, June 2016

TRANSPORTATION MISSION

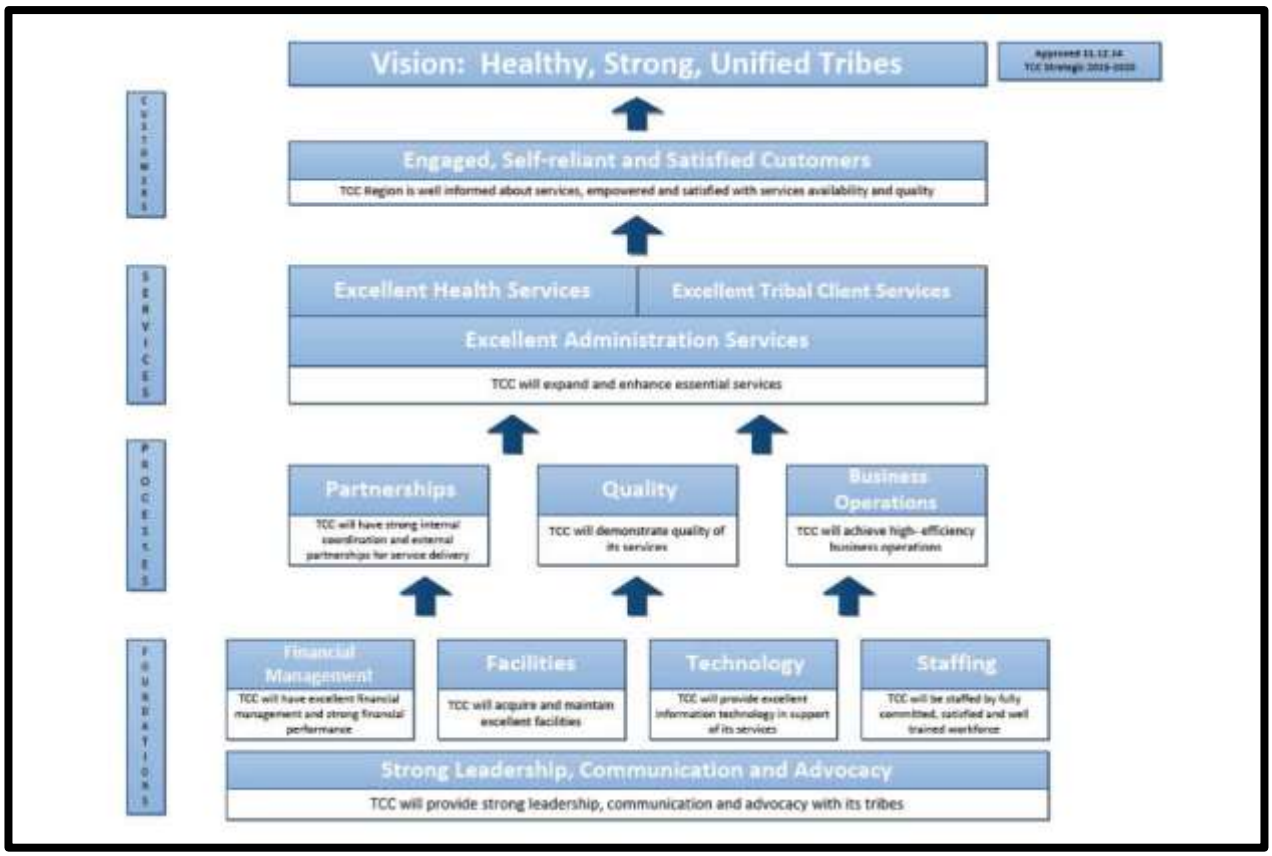
The Tanana Chiefs Conference Tribal Transportation Program is dedicated to promoting safe transportation systems and representing Tribes in the TCC Region by addressing their transportation concerns.

EXECUTIVE SUMMARY

The Tanana Chiefs Conference (TCC) Regional Transportation strategy was developed through a partnership with the tribes in the region and TCC to identify common transportation goals, issues and future plans to better work together consistent with each Tribe's Long Range Transportation Plan (LRTP).

Developing the Regional Transportation Strategy

In November 2014, TCC Full Board of Directors held a special three day meeting to adopt the 2015-2020 Strategic Plan. The Strategic Plan provides a roadmap for improving the organization and the services it provides to the 42 tribal governments, which includes 37 federally recognized Tribes, and over 16,000 tribal members. The plan (below) includes ten over-arching goals designed to help reach TCC's vision of Healthy, Strong, Unified Tribes.



Tanana Chiefs Conference reached out to every village in the region with a survey for Transportation and Housing needs and/or concerns. There was hundred percent participation rate from the TCC regions federally recognized tribes. The information from that survey and the Tribes' Long Range Transportation Plans (LRTP's) that were submitted to TCC were compiled for this document.

The fall of 2015 TCC held a two day Planning Summit in Fairbanks, representatives from each tribe in the region attended to discuss priorities and needs for Transportation, Housing, Energy and the Regional Comprehensive Economic Development Strategy. During the summit tribes were able to hear presentations from experts in the different areas and had the opportunity to break into groups by sub region to discuss their needs, identify best practices, commonalities and goals.

In May 2018, TCC held a two day Transportation Summit in Fairbanks sharing the first draft of the strategy. Two representatives from each Tribe in the region attended. The summit included a breakout session where each subregion met to discuss Transportation needs and priorities.

Aerial shot of Kaltag. March 2018.

TANANA CHIEFS CONFERENCE

TCC's Mission

Tanana Chiefs Conference (TCC) provides a unified voice in advancing sovereign Tribal Government through the promotion of physical and mental wellness, education, socioeconomic development, and culture of the Interior Alaska Native People.

TCC's History

TCC is non-profit corporation organized as Dena' Nena' Henash or "Our Land Speaks"; charged with advancing tribal self-determination and enhancing regional Native unity. TCC provides services while balancing traditional Athabascan and Alaska Native values with modern demands. The organization works toward meeting the health and social service needs of tribal members and beneficiaries throughout the TCC region.

While TCC was not officially formed until 1962, the history of how our organization came to be dated back over one hundred years. In 1915, Tribal Chiefs from throughout the region banded together to protect their native land rights, an issue that continued after Alaska's statehood in 1959 and is still relevant today.

Since the time of contact with Western society, Alaska Native people have experienced an unprecedented rate of change. The gradual settlement of Alaska has introduced a range of external influences including new populations, laws, policies, diseases, institutions, values, economies and languages.

Athabascan people have a long history in Interior Alaska with a traditional lifestyle based on seasonal wild resource harvest activities. The communities that identify as Athabascan are very diverse, with each region possessing its own distinct language or dialect, world view and cultural values.

The traditional hunting and fishing practices of Alaska Native people, including the harvesting and sharing of fish, game, and other resources and the ceremonies which accompany these practices provide for the social, cultural, spiritual, and economic wellbeing and survival of TCC people and communities. Today, these traditional practices are in continued jeopardy, with residents disenfranchised in a highly complex regulatory and management regime dominated by federal and state governments.

Road to the airport in Eagle

Tanana Chiefs Conference

About the Region

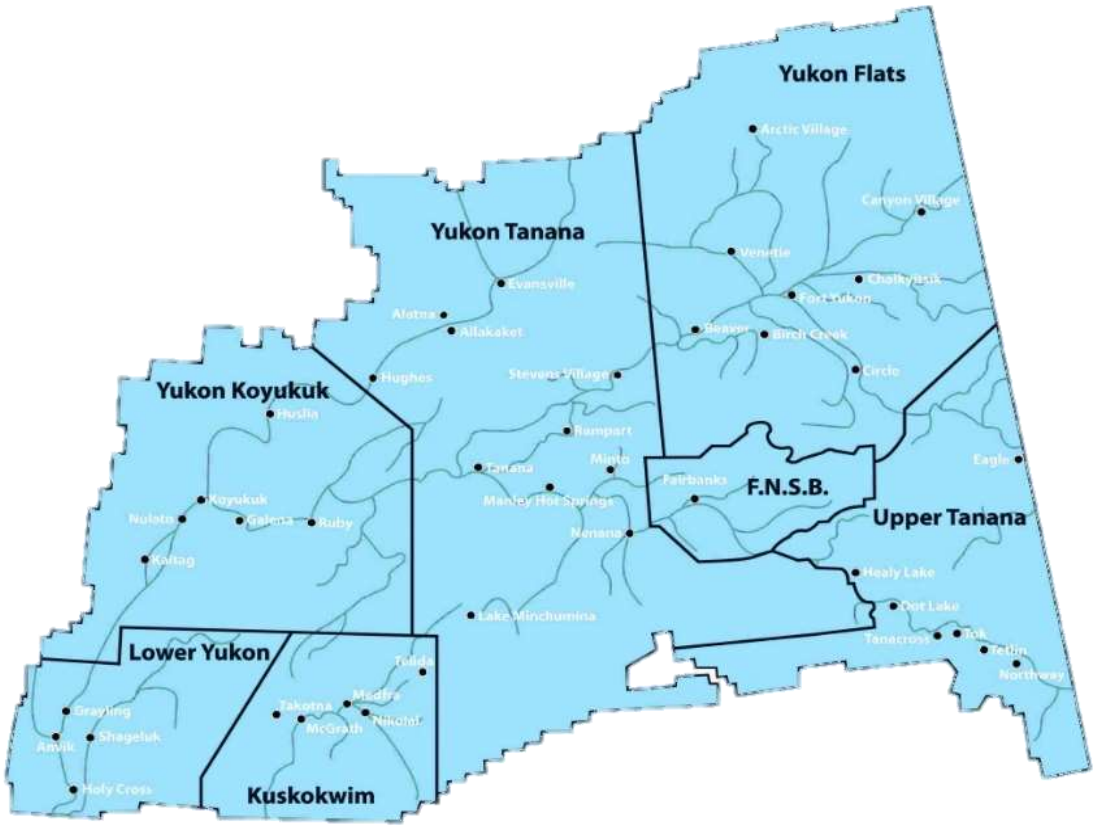
Tanana Chiefs Conference, an Alaska Native non-profit corporation, charged with advancing Tribal self-determination and enhancing regional Native unity. They provide services with balancing traditional Athabascan and Alaska Native values with modern demands. They work towards meeting the health and social service needs of Tribal members and beneficiaries throughout the region.

The region covers an area of 235,000 square miles in Interior Alaska, which is equal to about 37 percent of the entire state, and just slightly smaller than the state of Texas. Within the region there are 42 communities, including 37 federally recognized tribes, spread within six sub regions:

- Lower Yukon
- Upper Kuskokwim
- Upper Tanana
- Yukon Flats
- Yukon Koyukuk
- Yukon Tanana.

The organization works under the leadership and guidance of the Full Board of Director, Executive Board, Health Board, and Traditional Chiefs. The leadership play an important role in shaping the organization and keeping the non-profit focused on the vision of the people.

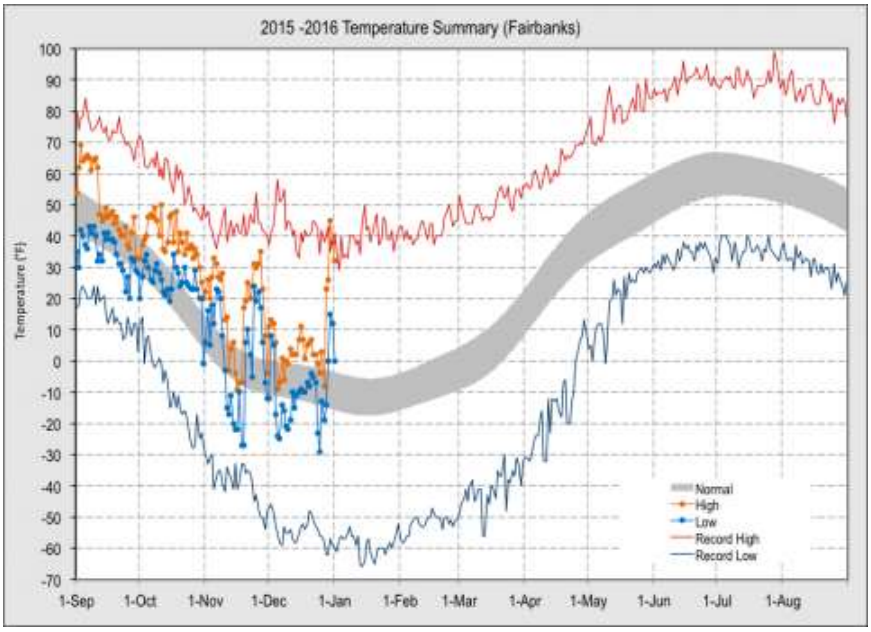
Driving down Eagle Summit, Steese Highway



[1]

Yukon Tanana	Yukon Flats	Upper Tanana	Yukon Koyukuk	Upper Kuskokwim	Lower Yukon
•Alatna	**•Arctic Village**	**•Dot Lake**	**•Galena**	**•McGrath**	**•Anvik**
•Allakaket	**•Beaver**	**•Eagle**	**•Huslia**	•Medfra	**•Grayling**
•Evansville	**•Birch Creek**	**•Healy Lake**	**•Kaltag**	**•Nikolai**	**•Holy Cross**
•Hughes	•Canyon Village	**•Northway**	**•Koyukuk**	**•Takotna**	**•Shageluk**
•Lake Minchumina	**•Chalkyitsik**	**•Tanacross**	**•Nulato**	**•Telida**	
•Manley Hot Springs	**•Circle**	**•Tetlin**	**•Ruby**		
•Minto	**•Fort Yukon**	•Tok			
•Nenana	**•Venetie**				
•Rampart					
•Stevens Village					
•Tanana					

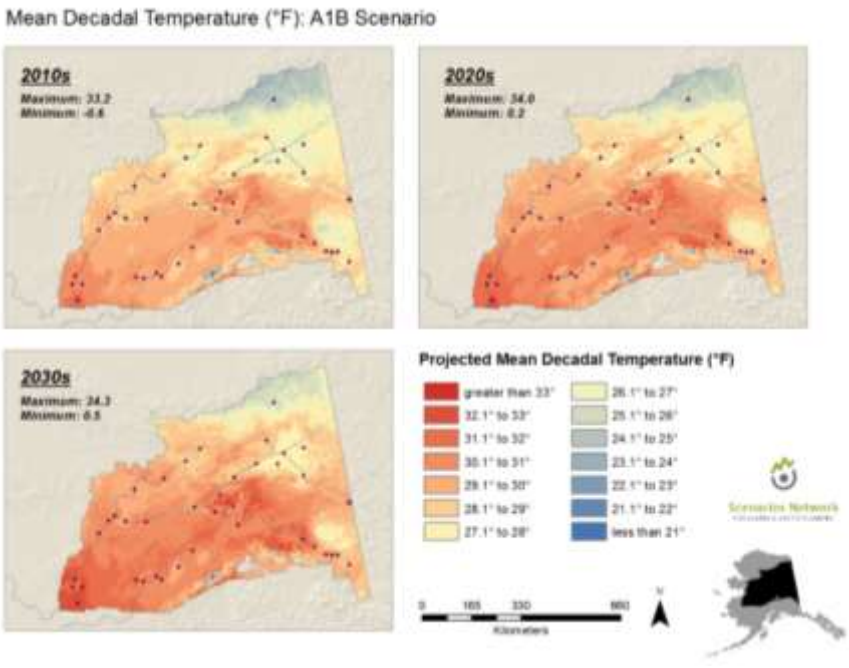
[1] Bolded villages indicate the federally recognized Tribes.



Climate

The temperature in the interior region of Alaska varies greatly from season to season. For example, summers can reach up to the high 90 degrees Fahrenheit and winters can drop into the -60 degrees Fahrenheit. Extreme weather conditions arise throughout the seasons, making the climate an important and inevitable factor of life within the TCC region.

The University of Alaska Fairbanks was able to provide TCC with a climate trend analysis for the region up until 2030. That analysis predicted a rise in the average annual temperatures in all of our communities.



Increasing Water Levels

There has been focus on the impacts of climate change on Alaskan villages, such as flooding and erosion. In a report published by the U.S. Government Accountability Office (GAO) in 2003, it was found that flooding and erosion impacted 86%[2] of Alaska villages to varying extents.

[2] 184 out of 213

Erosion[3]

In 2009, the Government Accountability Office (GAO)[4] reported that 31 Alaska communities are in imminent danger because of river erosion, six[5] of which are located in the TCC region. In general, communities are resourceful and inventive for temporary measures, but dependent on external assistance for long-term solutions. Individual communities are the first entities to respond to erosion issues. Typically, communities contact State and Federal agencies to draw attention to the problem and try to develop solutions. The State of Alaska does not have a specific erosion control authority or funding program, however that has not prevented the State from providing substantial assistance to many communities suffering from the effects of erosion-related damage. The State has a strong history of actively addressing erosion and flooding.

Allakaket Erosion Extent

Hughes Erosion Extent

Huslia Erosion Extent

Many Federal agencies are involved in various aspects of erosion management. However, only two Federal agencies have specific missions to provide others with erosion protection projects:

- The U.S. Department of Agriculture (USDA) and the National Resources Conservation Administration (NRCS) cooperate with states and local agencies to carry out works of improvement for soil conservation and related purposes.

[3] Source: Alaska Baseline Erosion Assessment. March 2009

[4] Alaska Native Villages. Limited Progress has been made on relocating villages threatened by Flooding and Erosion. GAO Report to Congressional Requesters. Page 12

[5] Those communities include: Allakaket, Hughes, Huslia, Koyukuk, McGrath, and Nulato

Koyukuk Erosion Extent

McGrath Erosion Extent

Nulato Erosion Extent

- The U.S. Army Corps of Engineers has multiple programs that assist communities with coastal and riverine erosion planning, design, and construction.

Other Federal agencies have missions to provide information used in erosion assessment and planning. Some of these agencies construct erosion protection projects occasionally.

- The National Weather Service of the U.S. Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA) track storms and floods, which often create accelerated erosion rates.
- U.S Geological Survey (USGS) monitors river flow and has conducted extensive studies on erosion and sediment transport rates in streams and rivers.

The costs associated with gradual river erosion are expensive as communities look at relocation or combating the effects of erosion. For example, from 1994 to 2002 the City of McGrath received over $3 million from the Alaska Department of Community Commerce and Economic Development to complete four river erosion projects in their community.

Flooding[6]

The impacts climate change has and its relationship to flooding is something that our villages deal with on an annual basis. The communities impacted the most, are those located in low-lying areas along the riverbanks or deltas, which make them more susceptible to flooding as a result of ice jams, snow, glacial melts, rising sea levels, and heavy rainfall. Damage inflicted on the communities varies in severity each year, either with major flooding throughout most of the community, or with annual riverbank erosion.

2013 Galena Flood.

The aftermath of flooding in Eagle May 20, 2013
(Tanana Chiefs Confernce, 2019)

From 2005-2015 there was a total of 13 federally declared disasters[7] in the state of Alaska, three[8] of which were from our region. In our region, there are approximately 20 communities[9] that are at risk of annual flooding due to their close proximity to the river. Please note that other villages have had flooding in their communities; however they were not declared a disaster on behalf of the State of Alaska.

[6] Photo courtesy Ed Plumb National Weather Service

[7] Multiple communities may be included in one declaration of disaster.

[8] FEMA-4122-DR; FEMA-1843-DR; FEMA-1796-DR

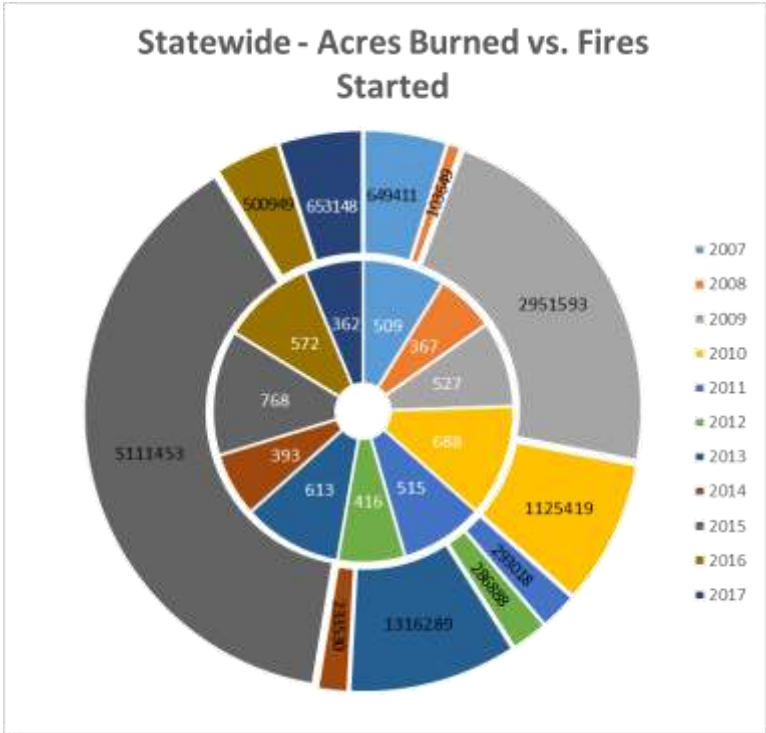
[9] Those communities include Allakaket, Hughes, Huslia, Koyukuk, Nulato, Kaltag, Ruby, Tanana, Rampart, Stevens Village, Beaver, Fort Yukon, Circle, Eagle, Manley Hot Springs, Nenana, Anvik, Grayling, Holy Cross, Takotna, McGrath, Nikolai

The National Flood Insurance Program (NFIP) provides minimum development standards for preventive and protective measures that improved land use and building practices. It encourages communities to evaluate and determine usage of higher standards. Participation in the NFIP is based on an agreement between a local government and the federal government. If the community adopts and enforces a floodplain management ordinance that meets program standards, the federal government will make flood insurance available within the community. In our region, the communities of Fort Yukon[10], Galena[11], Koyukuk,[12] McGrath, and Nenana[13] participate in the NFIP.

Flooding in Fort Yukon. May 21, 2013 (Tanana Chiefs Confernce, 2019)

Wildfires

According to the Alaska Center for Climate Assessment and Policy, the number of acres burned as a result of wildfires in Alaska from 2000-2009 was double the numbers recorded in the previous 40 years. The average area burned per decade in Alaska is projected to double by the middle of this century. The increase in average annual temperatures results in low humidity, high winds, longer summers, decrease in permafrost, earlier drier springs, etc., all of which increase the number of wildfire fuels.[14]



The chart to the right shows the annual trends of acres burned from

[10] Fort Yukon CID: 020045

[11] Galena CID: 020124

[12] Koyukuk CID: 020127

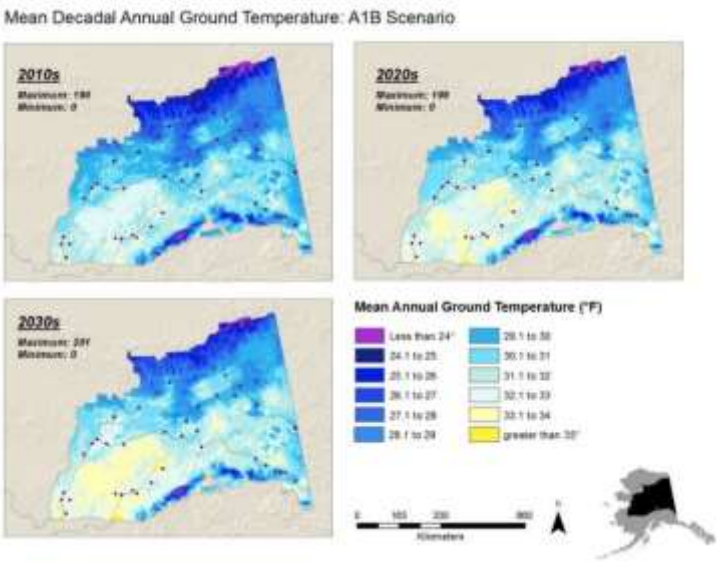
[13] Nenana CID: 025010

[14] Alaska Climate Change Adaption Series.

2007[15] to 2017 (outer portion of graph) in comparison to the total number of fires (inner portion of graph).[16] As shown, the 2005 and 2015 fire seasons were the worst that Alaska has seen, both of which attributed their severity to a combination of dry weather and lightning strikes that resulted in long-lasting fires.

Permafrost Melting[17]

Permafrost is a term used to describe permanently frozen ground. It indicates a thermal condition where the temperature of the rock or soil remains below freezing throughout the year. Constructing roads in Alaska requires specific knowledge about permafrost and specialized techniques. Disturbing permafrost carelessly may cause melting, resulting in uneven roads, settling issues and dangerous consequences for road conditions. It is not always possible to safely build on permafrost.



Permafrost is a challenge to road construction in the Interior. When building over permafrost, the design should keep the heat and solar reflection to a minimum. Any digging warms up the ground and causes the permafrost to begin melting. This is harmful to roads and airport runways. Road construction companies have begun installing insulation under road surfaces to protect the permafrost. (Koch, 2013)

In Northern and Interior Alaska, permafrost is commonly evident along riverbanks or road cuts. Effects of permafrost melting can be seen on many roads and highways in the Interior, such as rough wavy road surfaces and highway signs warning of "Dips". (Alaska Public Lands Information Centers, 2019)

In recent years along Alaskan Highways, bumps and cracks have blemished huge paths in the road, with some crevices so deep that they can be walked in. Scientist claim that these crevices are an indicator that permafrost is thawing as global temperatures continue to rise. (Quinn, 2016)

[15] While this plan sought to maintain a decade timeline standard for all data sets, it should be noted that the 2004 fire season was the most damaging with the highest numbers of acreage burned in Alaska's history.

[16] According to annual data collected by the Alaska Department of Natural Resources Division of Forestry

[17] Source UAF Cooperative Extension Service. Permafrost A building Problem in Alaska

Economy

Fairbanks and Anchorage serve as primary hub for the rural communities and a substantial amount of goods are delivered to rural communities within our region. To offset the high cost of living in rural Alaska, residents have relied on gathering, hunting and fishing.

Employment Trends

Employment in the TCC region has been slowly decreasing over the past 15 years, with a high of close to 4,000 jobs in 2001, and a low of fewer than 3,600 jobs in 2014. The lowest points for employment were seen in 2008 and 2014. Employment trends in the region largely mirrored population trends, with overall employment decreasing over the last 15 years.

Top Employers by Sector and Industry Clusters

Local government is the largest employment sector in the TCC region, providing 13 percent of total employment. Educational and Health Services is the next largest sector, with 12 percent of total employment, followed by Trade, Transportation, Utilities, Leisure and Hospitality, making up 11 percent. These numbers do not include self-employment or wild resource harvesting. TCC is currently developing a data process to help capture wild resource harvests in the region.

While construction employment numbers are currently low, interviews with tribal administrators indicate there are many opportunities for seasonal local construction and road jobs in TCC communities.

Workforce Age

Of 3,571 resident workers in 2014, nine percent were between the ages of 45 and 50, and 35 percent were over the age of 50. These figures indicate the workforce in the TCC region is slightly older than Alaska's overall workforce, where 10 percent of resident workers were between the age of 45 and 50, and 30 percent were age 50 or older.

Boating up to Tanana's 16 Mile Camp, June 2017

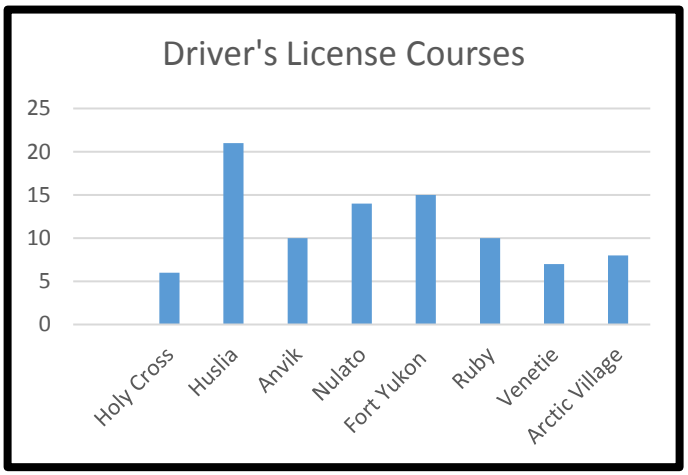
Educational Attainment

The majority of the adult population in the TCC region has a high school diploma and many have had at least some college. Educational attainment in the TCC region tends to be lower than the state averages, with a larger proportion of the TCC population not completing high school, and a smaller proportion having earned a Bachelor's degree or higher when compared with the state average.

TCC Employment and Training Program

TCC Employment and Training program offers classes for Driver's License (DL) training for Commercial Driver's License (CDL), Heavy Equipment Maintenance and Heavy Equipment Operating.

DL classes were hosted by North Star Driving School in Fairbanks, village members were flown in and attended a one to two day class to receive their permits and were put on a list to attend the driver's education course to obtain their license. Beginning in 2019, Employment and Training will no longer be hosting village drivers permit classes. If an interested tribal member wants to get their driver's license, it will be their responsibility to pay for airfare, hotel, and food. Employment and Training will cover class fee of $500 only.



CDL classes have gone through Center for Education and Employment (CEE). They provide the instructor to do a permit class in the village, then they assist the client with hotel, airfare, and food for the week in Fairbanks to earn the CDL license. Employment and Training pay the instructor fees, only if the tribe cannot afford to pay for them.

There is a high demand for Heavy Equipment maintenance and operating. This training will begin in 2019.

Boat landing in Minto, August 14, 2018

Small Business Development

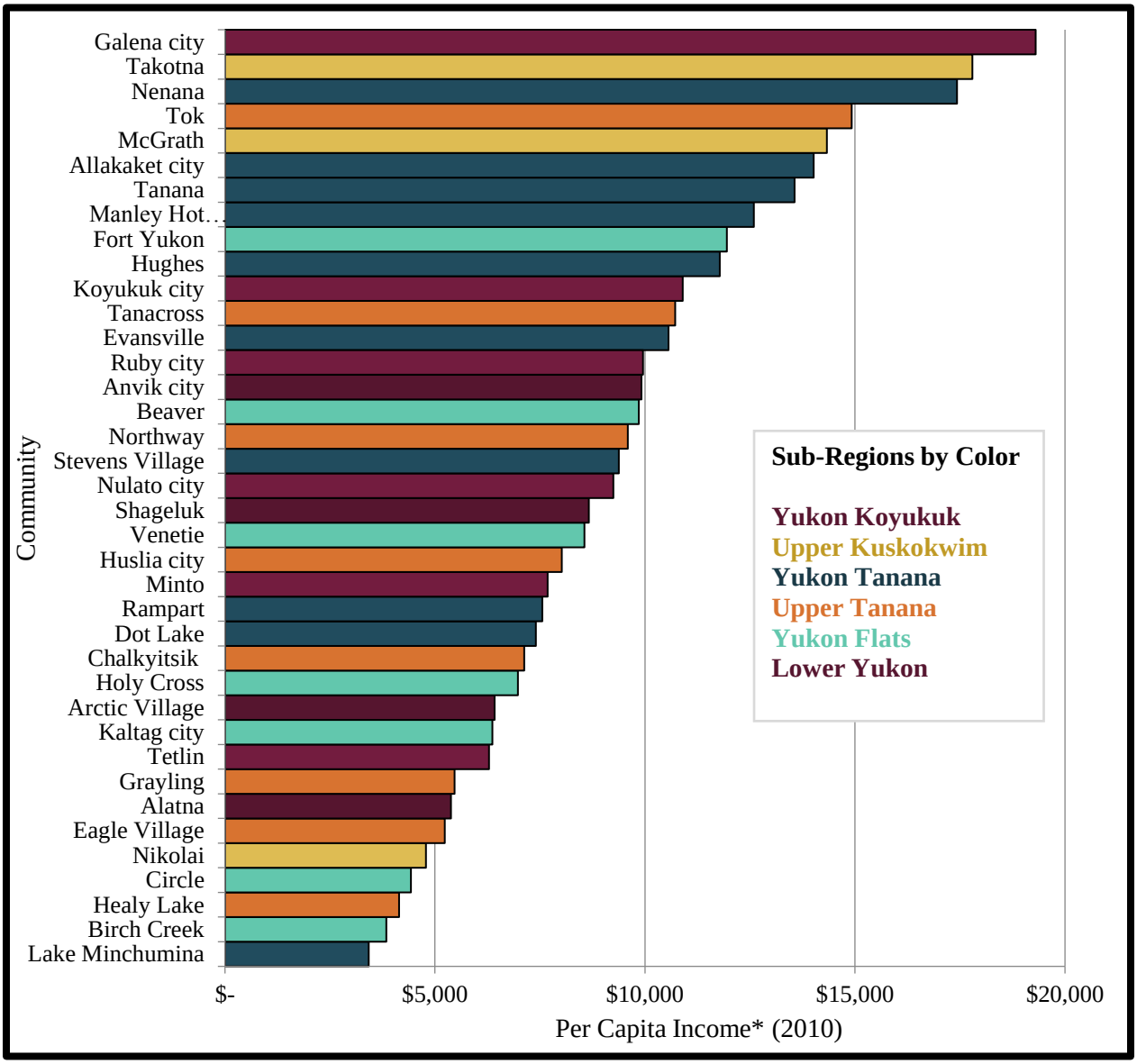
TCC's Planning and Development department offers technical assistance to tribal councils and tribal members in the TCC region. Technical assistance consists of guides and tools to write community plans, grant applications and economic development and business plans. Developing small businesses within rural communities can be almost effortless for Tribes, City Governments and individuals who own heavy equipment; such as renting equipment for construction and road projects.

Chalkyitsik, April 2017

Income

Over the five-year period between 2009 and 2014, per capita income in the TCC region grew slowly, from $11,565 to $11,816. The region's average per capita income of $11,848 per year remained approximately one-third the size of average per capita income for the state of Alaska during this period. The City of Fairbanks per capita income, while lower than the statewide average, is more than twice the size of the TCC region. The per capita income data for TCC communities does not capture the dollar equivalent of earnings such as wild resource harvests, which are an important supplement to traditional income in many TCC households. The largest group of income earners in the region made less than $5,000 per year, and only 14 percent made $50,000 or more per year. Per capita income varies across the TCC region, with each sub-region including communities representing a wide range of incomes. Three TCC communities averaged over $15,000 per capita income in 2010, while five of the region's communities made less than $5,000 per capita that same year. Figure 1 illustrates the per capita income for the 37 communities in the TCC region, with each community color coded based on the sub-region to which it belongs.

Figure 1: Per Capita Income by TCC Community and Region, 201



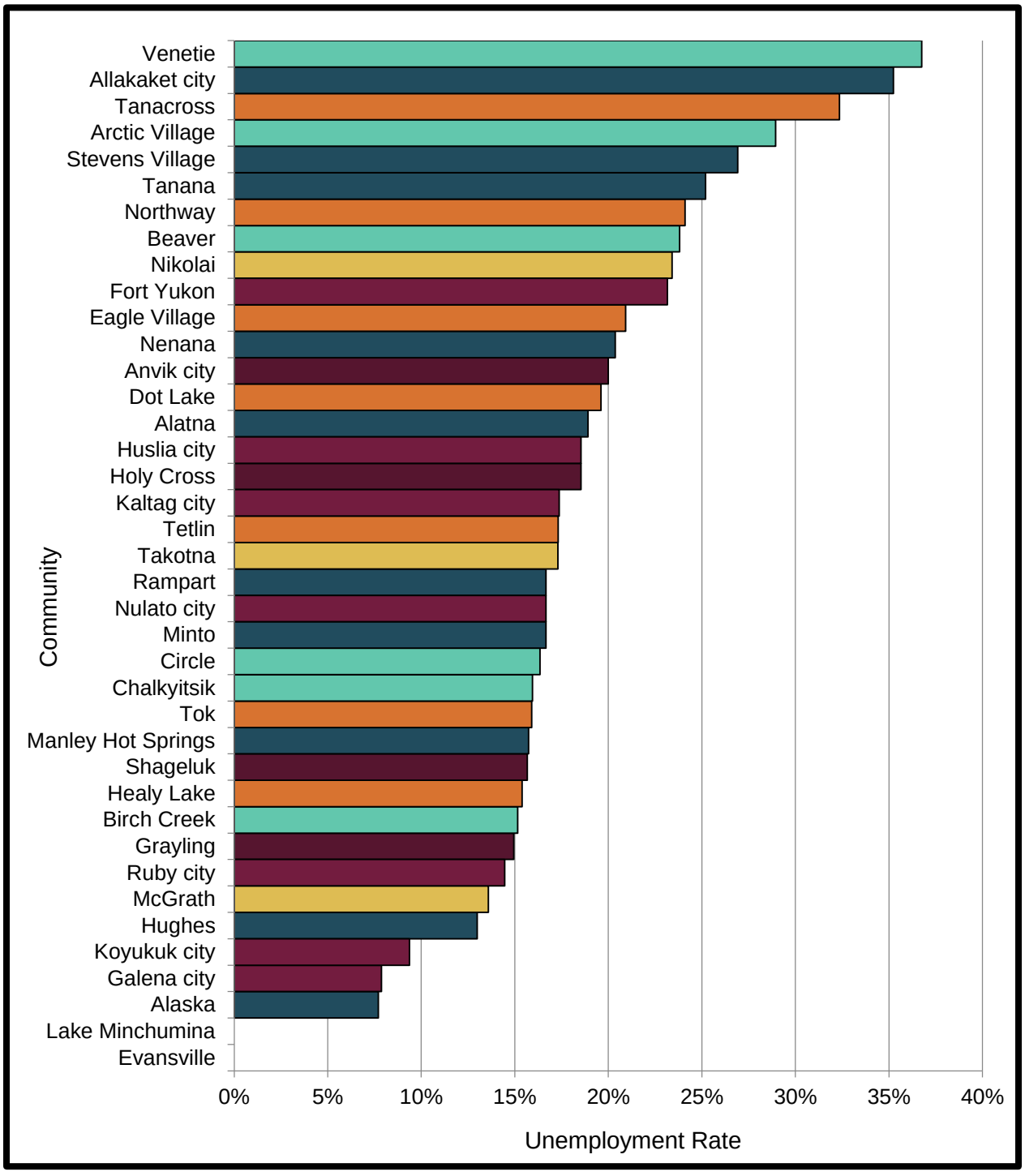
Does not include the dollar equivalent of wild resource harvests and other non-monetary household earnings.
Source: Alaska Department of Labor and Workforce Development, 2016 data extract with 2010 data

Unemployment Trends

When viewed as an entire region, unemployment numbers in the TCC region are similar to what they were 15 years ago, although year-to-year regional unemployment has fluctuated during that time. 2004 and 2011 had the highest number of unemployment claims, and the lowest number of unemployment claims was in 2008 and 2014. Unemployment rates vary between communities in the TCC region and between each of the TCC subregions

The average unemployment rate for the state of Alaska in 2010 was 7.7 percent. Figure 2 illustrates the comparative unemployment rates for communities in the TCC region and the average unemployment rate for Alaska in 2010. Each community is color coded based on the sub-region to which it belongs.

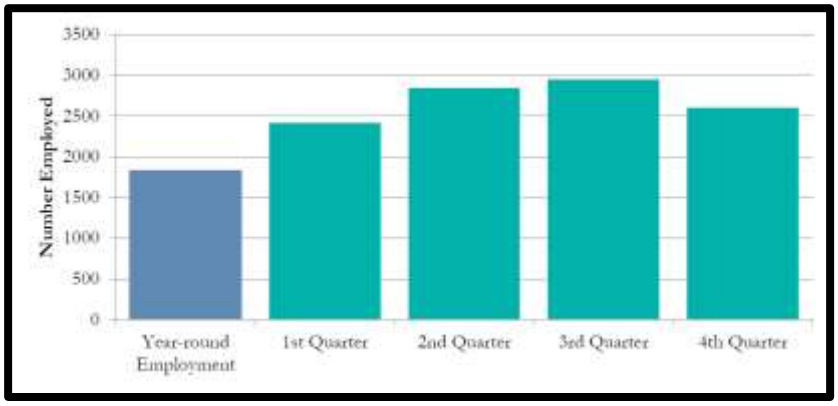
Figure 2: Unemployment Rates by TCC Community and Region, 2015



Source: Alaska Department of Labor and Workforce Development, 2016 data extract

Seasonal Employment

Figure 3: Unemployment Seasonality of Employment Opportunities, 2010



Source: Alaska Department of Labor and Workforce Development, 2016 data extract

Seasonal unemployment data was not available at the community level for the TCC region. However, seasonal unemployment can be inferred from the region's quarterly employment trends. Employment opportunities fluctuate throughout the year. Only a little more than half of the 3,541 individuals employed in the TCC region are employed year-round. Employment is lowest during the first quarter, and is highest during the third quarter. Drawing from this data, unemployment and underemployment in the TCC region are most likely higher in the winter and early spring and lower in the summer and fall.

Transportation is considered mainly seasonal employment. Summer season includes road construction, dust control, brush cutting, grading roads, drainage control and filling holes. Counting mileage for inventory purposes is done in the spring to fall month due to extreme winter temperatures. Winter employment is minimal and mainly consist of grading and trail marking.

Land and Resources

(Tanana Chiefs Confernce, 2019)

The Federal Government, Regional and Village Corporations are the biggest Land owners in the Tanana Chiefs Conference region which is shaped by the Alaska Native Claims Settlement Act (ANCSA), and the Alaska National Interest Lands Conservation Act (ANILCA). ANCSA was passed by Congress 1971 creating thirteen regional corporations and 224 village corporations for the disbursement of 44 million acres of land. Village Corporations retained only the surface rights of land and the Regional Corporations retained the subsurface and the right to manage any resources found on those lands.

Doyon Limited is a for-profit regional corporation in interior Alaska that owns 12.5 million acres of land. Management of these lands focus on the protection of traditional shareholder uses and economic development of natural resources. Doyon's Natural Resource Department manages over 40 sources of sand, gravel, and rock for development and sales. These material sites are used for community and shareholder projects.

ANILCA is a land statute that protects about 100 million acres of federal lands such as national wildlife refuges, national parks, conservation areas, and wild and scenic rivers.

Interior Alaska has a mixture of forests consisting of white spruce, birch and tundra or treeless areas.

Land ownership patterns in the region mirror the rest of the state. The federal government is the largest landowner, followed by the State of Alaska, and then, collectively, the largest private land owners – the Alaska Native Claims Settlement Act (ANCSA) Native Corporations.

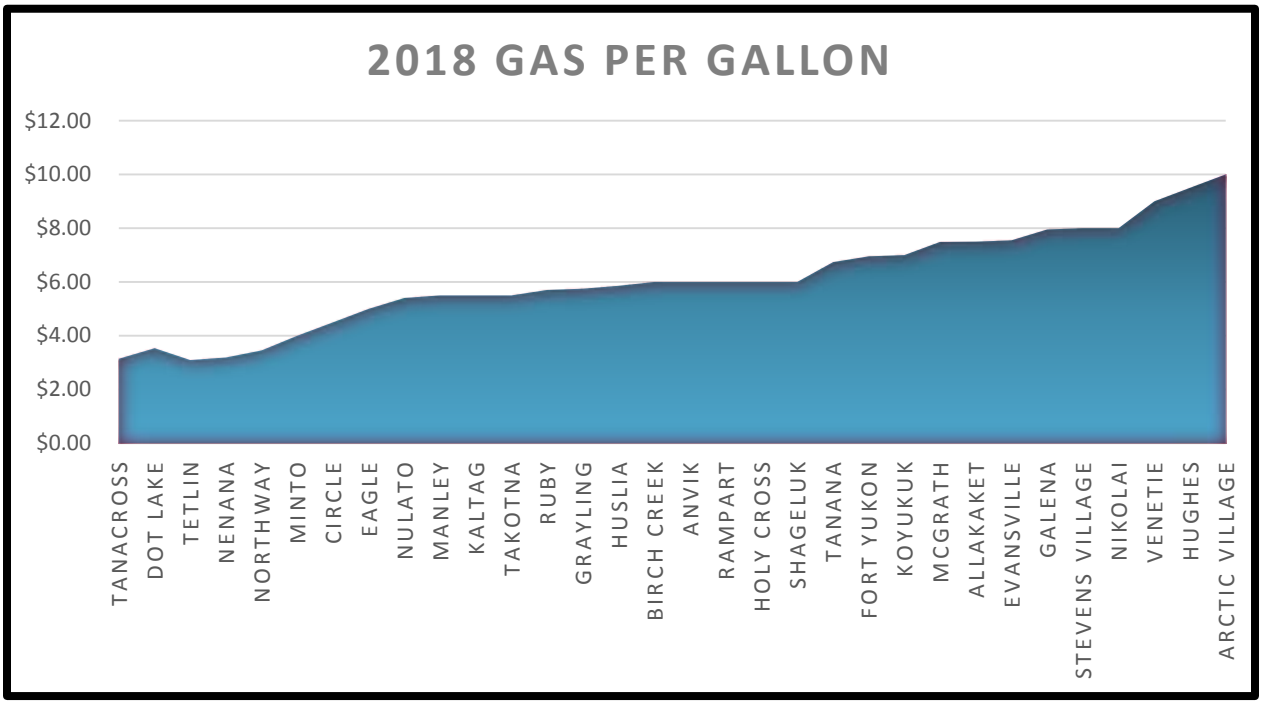
As of December 2015, the distribution of land ownership by acre for the region is as follows:

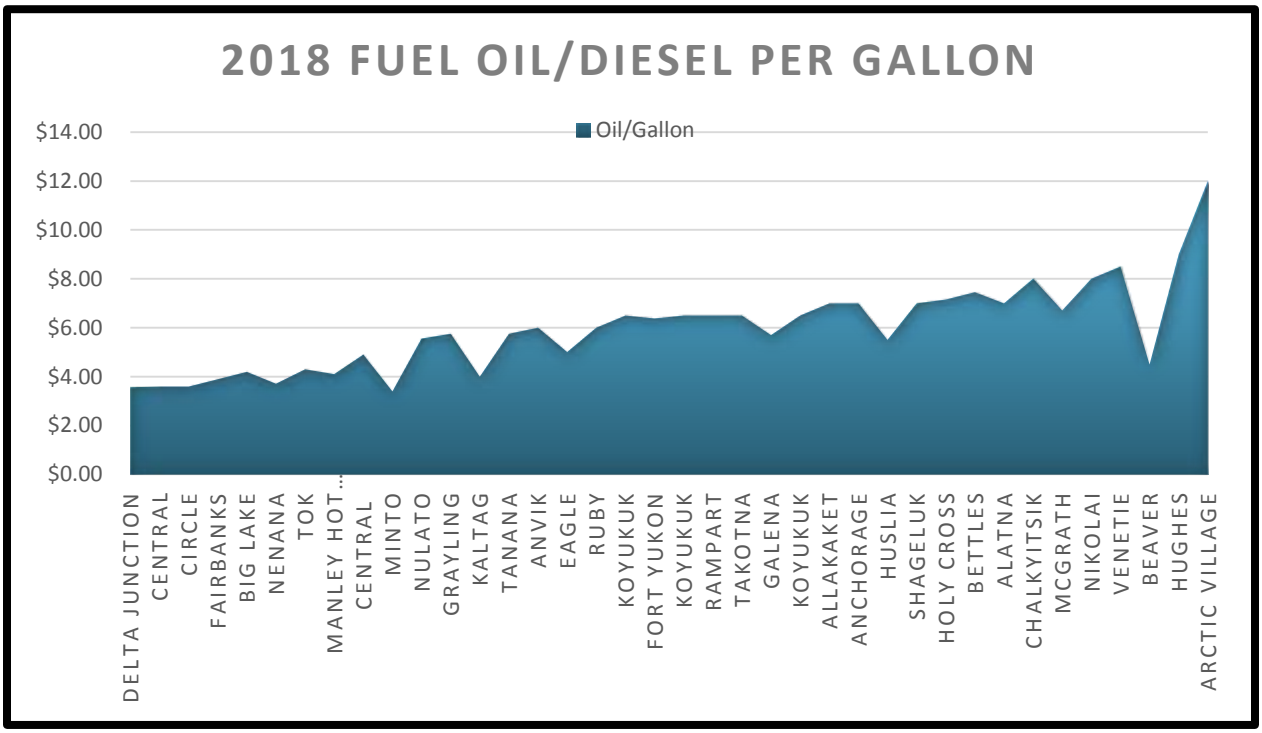
- 63,212,373 acres are federally owned.
- 48,443,527 acres are owned by the State of Alaska.
- 7,922,107 acres are owned by Doyon, the Regional Native Corporation.
- 3,613,434 acres are owned by village corporations.
- 229,857 acres are private allotments.
- All subsurface areas below; Doyon and village corporation land are owned by Doyon.

Huslia

Fuel Costs

Working with Tribal Administrators and local gas stations from the region, we collected current data on gas prices for each communities. Gas prices in the region range from $3.09-$10.00. Fuel Oil Prices in the region range from $3.40-$12.00. These gas and fuel oil prices impact construction costs for heavy equipment.





TRIBAL TRANSPORTATION PROGRAM

History of the Tribal Transportation Program

The Bureau of Indian Affairs (BIA) and the Federal Highway Administration (FHWA) entered into a Memorandum of Agreement on May 22, 1983. The agreement included planning for Indian reservation roads so that an agency can receive money for these projects. (United States Department of Transportation - Federal Highway Administration, 2017)

In 2005, SAFETEA-LU was signed into law. This bill made a significant change in the administration of the Indian Reservation Roads (IRR) program. IRR funding for a highway, road, bridge, parkway, or transit facility program or project on an Indian reservation may now be provided directly, in accordance with the Indian Self-Determination and Education Assistance Act. The bill was named after Lu Young, AK Representative Don Young's wife. (Wikipedia, 2018)

SAFETEA-LU provided for tribes or tribal consortium to assume the duties of the Secretary of Interior and to enter directly into FHWA Program Agreements allowing for IRR funds to be received immediately when made available by Congress.

Crossing a section of the Tanana River on Healy Lake's ice road, January 2018

SAFETEA-LU also provided for *Tribal-State Road Maintenance Agreements***.** An Indian tribe may enter into a road maintenance agreement with a State to assume the responsibilities of the State for roads in and providing access to Indian reservations. Annual report to Congress required beginning in 2005 (prepared and submitted by the Secretary) identifying tribes and States that have entered into these agreements, miles assumed, and funds transferred.

MAP-21 was enacted in 2012, which replaced the existing Indian Reservations Roads (IRR) program with the Tribal Transportation Program (TTP). (U.S. Department of the Interior, 2018) MAP-21 changed the amount of TTP funds that can be spent on maintenance from 25% of total share to 25% of total share or up to $500,000 whichever is greater. This bill also froze the funding formula; no new inventories count towards Tribal Transportation shares. What this means is that a tribe can update their tribal transportation inventory, adding additional roads, miles, trails, and bridges, however they will not receive additional funding to maintain and support the new inventory.

In early 2015, Congress passed, and the president signed, a five-year surface transportation reauthorization bill called FAST-Act. (Frankel, 2016) This bill provides a $10,000,000 increase each year until 2020 when the TTP will be funded at $500,000,000.

Bridge in Tetlin

Modes of Transportation

It's common to see people traveling along the river between communities year round; in the summer by boat and in the winter by snow machine due to traveling to villages by plane is so costly. On average, the cost to travel to villages is $500 roundtrip for airfare. With a family of four that's an average of $2,000 and at the high end a family of four can be as much $5,000.

Train Depot in Nenana

The main modes of transportation vary in winter and summer. During the summer months, boats are widely used for inter-village travel. Trucks and ATV's are common within a community. Snow machines are primary modes of transportation in and around villages during the winter months, along with sled dogs.

In the late fall, the creeks and rivers are not safe for travel before total freeze up as well as in the early spring the weather gets warm and everything starts to melt also making it unsafe.

Fort Yukon transit vehicle.

Some other modes of transportation in the region are trains and transit vehicles. The Alaska Railroad mainly runs from Fairbanks to Anchorage; and is widely utilized by tourists. Transit vehicles are utilized in different aspects. The Fort Yukon transit vehicle is used to shuttle elders and bring children to school.

With all these types of Modes of Transportation, data collection is vastly important. Making an account of how many incidents/accidents happen on the trails or roads. Weather conditions are the cause of many incidents in and between villages, amongst other situations. These can play a big role in safety in the long run but more importantly paint a picture of exactly how extreme travel is in Alaska.

Heavy Equipment

Heavy Equipment is in large demand in the rural communities. For the communities that have equipment, many of them are non-operational. There is a lack of running heavy equipment in the region.

Most of the regions communities are remote and can only be reached by river or air. Getting equipment and material to our rural communities can be particularly challenging. Barges are utilized as a more cost effective way to get equipment and supplies to a community. Barges come a few times a year to villages on larger rivers. The down side is that it takes a long time and that cuts into the short construction season.

Ice Roads

Ice Roads are becoming more abundant in Alaska to bring down the cost of basic necessities; food, fuel and for medical necessities. Few communities have produced yearly ice roads to assist the village's accessibility during part of the winter season. For safe traveling on the ice, the width must be at least 15-20 inches thick. Drilling the ice every 50-100 feet is necessary to ensure the width of the ice is safe throughout the length of the ice road.

Healy Lake was the first community in our region that began building ice roads. Some of the current ice roads are:

- Tanana to the Pioneer Road
- Rampart to the Granite Creek Bridge linking them with access to the Elliot Highway
- Fort Yukon made a road to their wood yard
- Evansville has an ice road that leads to the Prudhoe Bay Haul Road
- Yukon Koyukuk subregion four of the six tribes have a yearly ice road between their communities

With warmer winters, the ice roads have been taking longer to open and are closing earlier in the spring time.

Search and Rescue

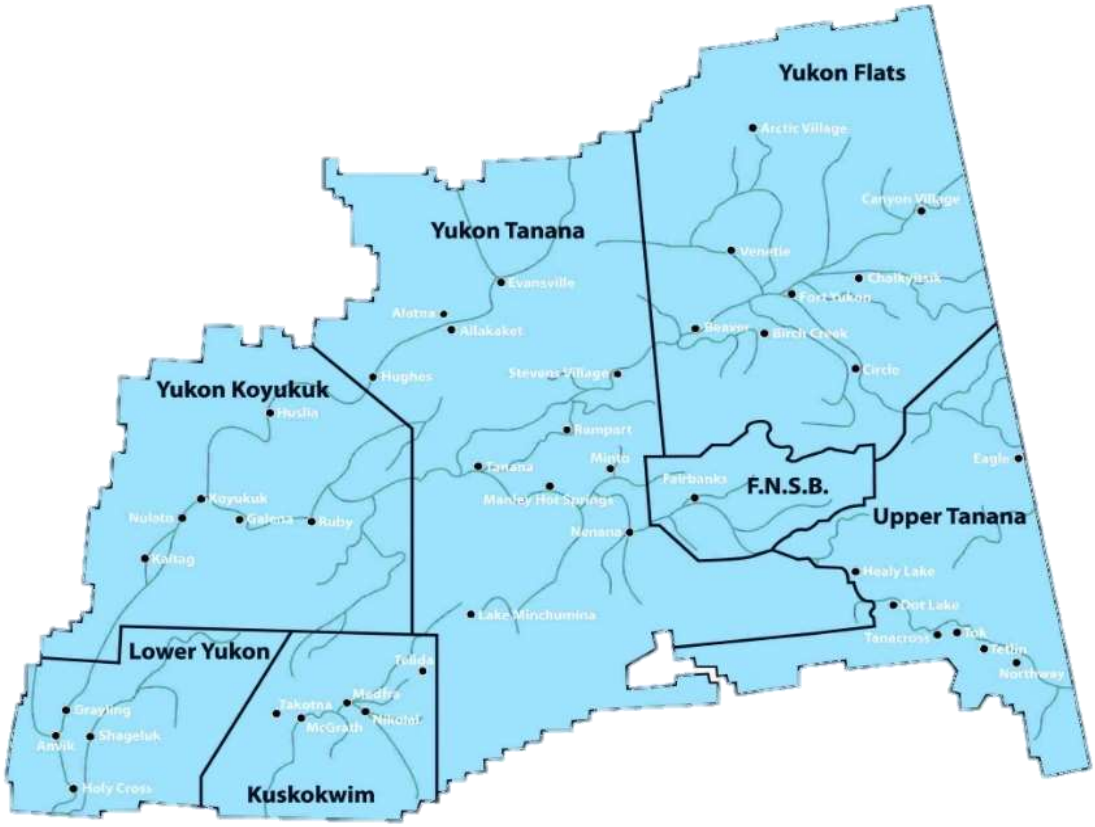
Inter-village travel by snow machine or boat is an economical form of travel and is common for rural community members. Riding to another community on their snow machine, four wheeler or boat community is common, especially during family or community gatherings. Due to the increasingly busy inter-village travel, the need for more search and rescue comes into effect.

Four-wheeler pulling a boat in Ruby August 29, 2018

Volunteer search and rescue play a big part in traveling on the rivers, lakes and trails; winter or summer. Winter trails on the river have become progressively dangerous with warming winter trends. Sometimes the ice doesn't freeze over properly or a storm will blow the trail in. When inter-village travelers are overdue, search and rescue crews not only have to search roads and trails but rivers and wilderness as well. In the winter this is an extremely time sensitive matter due to the fact that the weather can be -60 degrees or colder.

TRANSPORTATION IN THE REGION

Tanana Chiefs Conference Region



Yukon Tanana	Yukon Flats	Upper Tanana	Yukon Koyukuk	Upper Kuskokwim	Lower Yukon
•Alatna •Allakaket •Evansville •Hughes •Lake Minchumina •Manley Hot Springs •Minto •Nenana •Rampart •Stevens Village •Tanana	•Arctic Village •Beaver •Birch Creek •Canyon Village •Chalkyitsik •Circle •Fort Yukon •Venetie	•Dot Lake •Eagle •Healy Lake •Northway •Tanacross •Tetlin •Tok	•Galena •Huslia •Kaltag •Koyukuk •Nulato •Ruby	•McGrath •Medfra •Nikolai •Takotna •Telida	•Anvik •Grayling •Holy Cross •Shageluk

Tanana Chiefs Conference

Yukon Tanana Subregion

The Yukon Tanana Subregion consists of eleven villages in the largest area of Interior Alaska.
The native languages of the subregion are Central & Upper Koyukon, Tanana and Inupiaq;
Villages are primarily located along the Koyukuk, Tanana, Yukon, and Tolovana Rivers;
Transportation access throughout the subregion is reliant on rivers, airlines and the Parks and Elliott Highways;
The hub for this subregion is located in Fairbanks;
Three villages are accessible by ice road[18];
Three villages are accessible by road, year round[19];
Eight villages are serviced by barge[20].
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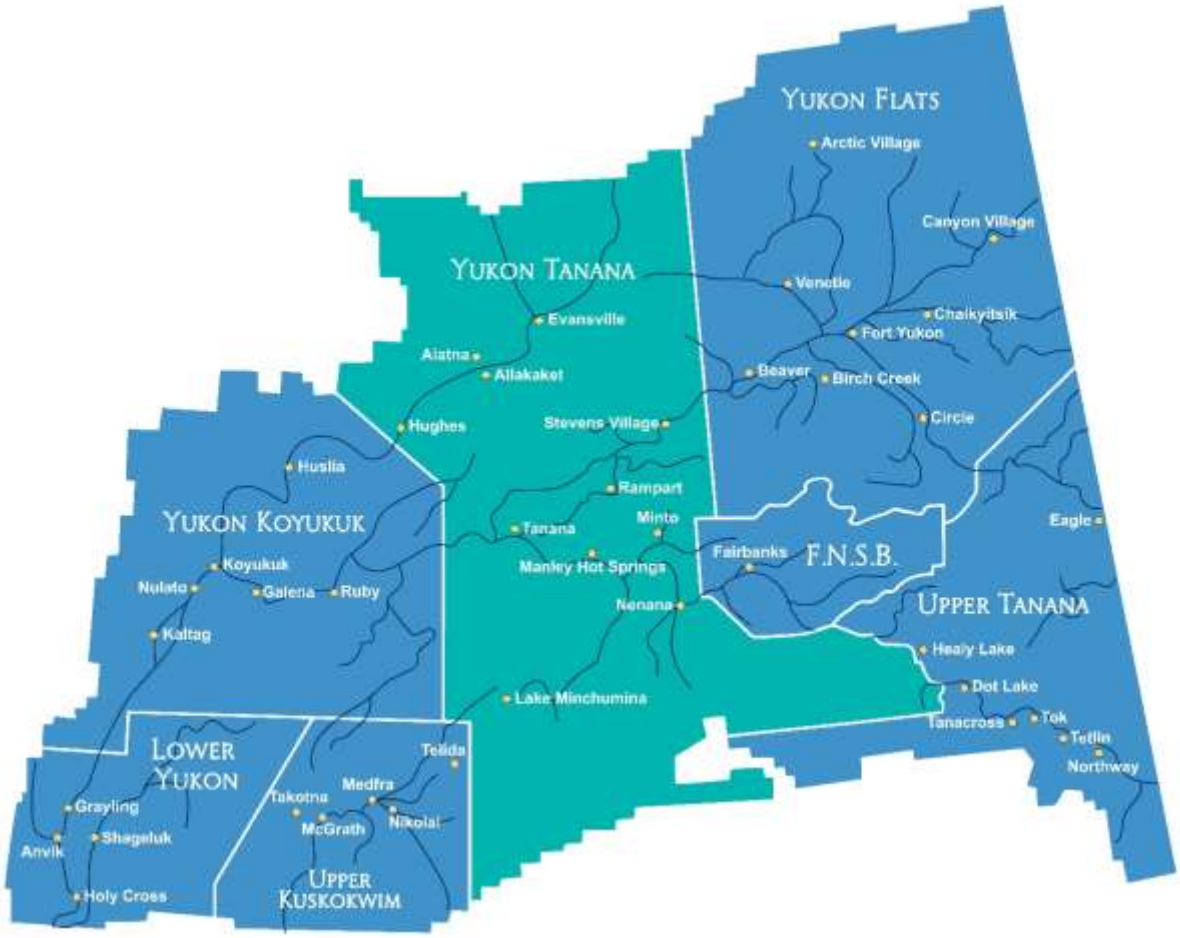


[18] Manley Hot Springs, Minto and Nenana

[19] Evansville, Rampart and Tanana

[20] Alatna, Allakaket, Hughes, Manley Hot Springs, Nenana, Rampart, Stevens Village and Tanana

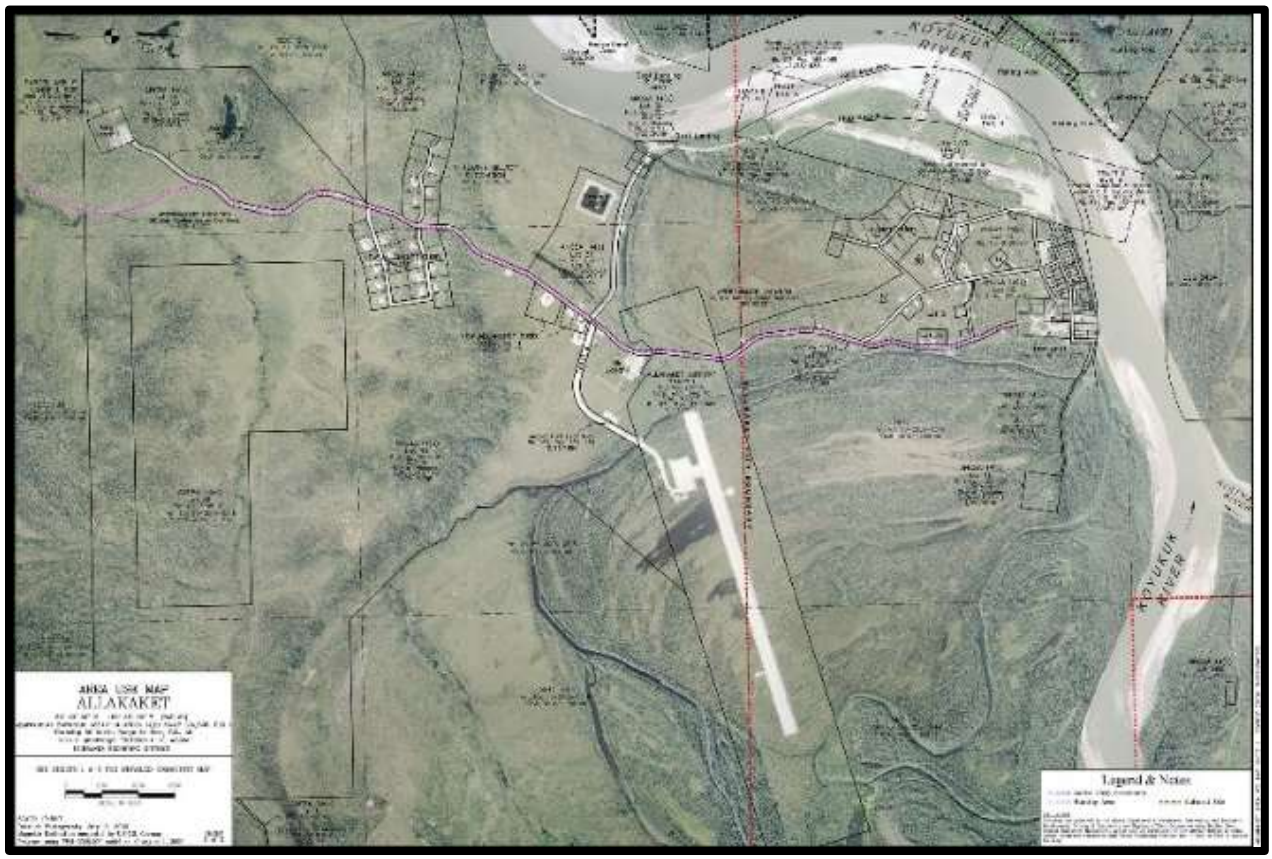
Alatna[21]

Alaska Native Village Name: Alaasuq
Translation: NA
Language: Central Koyukon Athabascan, Inupiaq
Population: 32 (2010 Census)
Location: 190 miles northwest of Fairbanks, 57 miles upriver from Hughes
Land Owned by Tribe: Land Owned by Tribe: 1,175 acres
Climate: The area experiences a cold, continental climate with extreme temperature differences. The average high temperature during July is 70 °F. The average low during January is well below zero, and extended periods of -40 °F are common. The highest temperature ever recorded was 94 °F and the lowest temperature ever recorded was -75 °F. Average annual precipitation is 13 inches, and average annual snowfall is 72 inches. The Koyukuk River is ice-free from June through October.
Culture: Koyukon Athabascan and Inupiaq
Airlines: Wright Air Service (flies into Allakaket airport)
Cost of Freight: $0.89/lb.
Frequency of flights: Daily flights to Allakaket
Barge Service: Yukon River & Road Transport
Miles of Road: 11.3

[21] The community is 6 miles downriver across from Allakaket where the airport is located. During freeze up and break up the community is landlocked which is hard on the community during emergencies and for school age children.

Allakaket

Alaska Native Village Name: Aalaa Kkaakk'et
Translation: "Place of the Mouth of the Two Rivers"
Language: Central Koyukon Athabascan
Population: 171 (2010 Census)
Location: 190 air miles from Fairbanks, 57 miles upriver from Hughes
Land Owned by Tribe: 1 acre
Climate: The area experiences a cold, continental climate with extreme temperature differences. The average high temperature during July is 70 °F. The average low temperature during January is well below zero and extended periods of -40 °F are common. The highest temperature ever recorded was 94 °F, and the lowest was -75 °F. Average annual precipitation is 13 inches, and average annual snowfall is 72 inches. The Koyukuk River is ice-free from June through October.
Culture: Koyukon Athabascan
Airlines: Wright Air Service
Cost of freight: $0.89/lb.
Frequency of flights: Daily flights
Barge Service: Yukon River & Road Transport
Miles of Road: 6.9 (unpaved); 154.4 miles



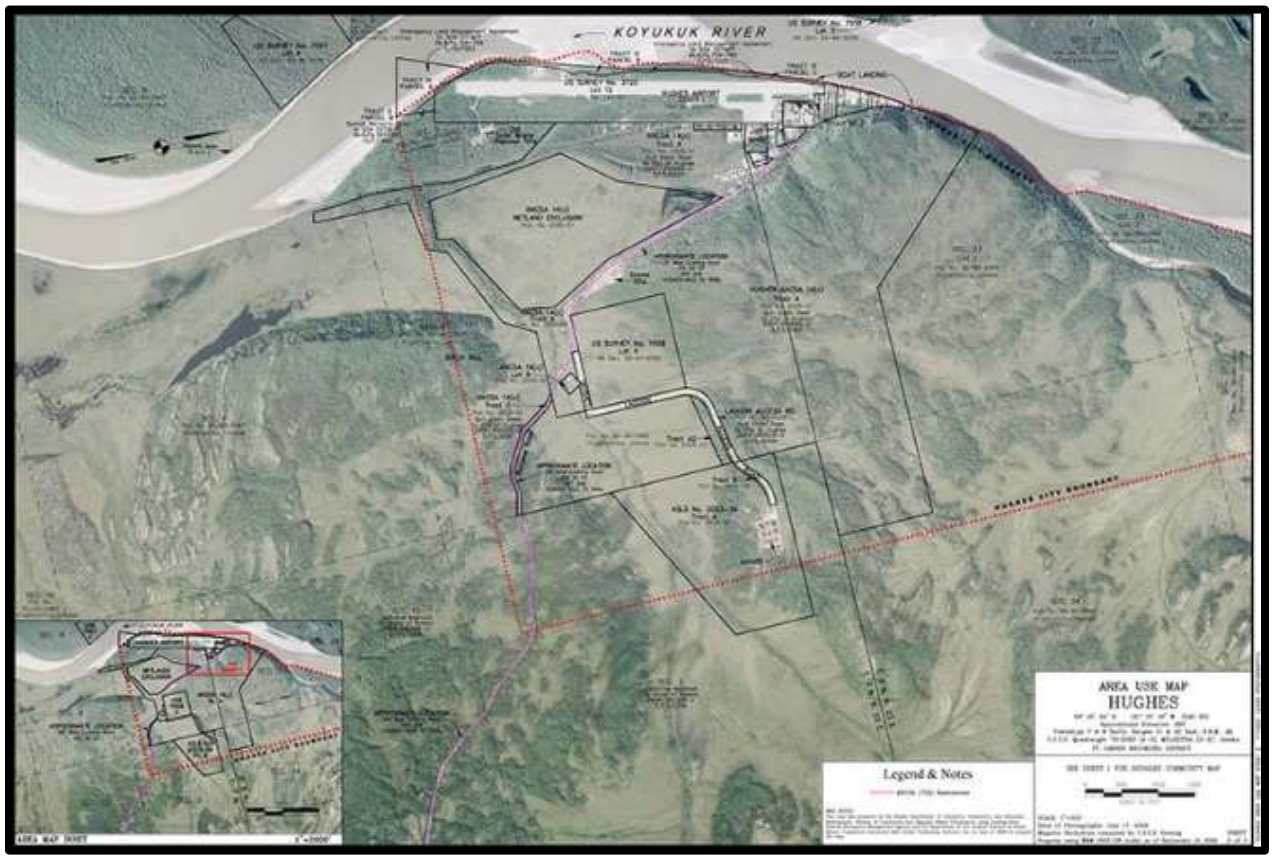
Evansville[22]

Alaska Native Village Name: KK'odlel T'odegheelenh Denh
Translation: NA
Language: Inupiaq, Central Koyukon Athabascan
Population: 26 (2010 Census)
Location: 35 miles north of the Arctic Circle, just south of the Brooks Range
Land Owned by Tribe: 1 acre
Climate: The area experiences a cold, continental climate with extreme temperature differences. The average high temperature during July is 70 °F; the average low during January is well below 0 °F. Extended periods of -40 °F are common. The highest temperature ever recorded was 93 °F; the lowest was -70 °F. Average annual precipitation is 13.4 inches, with 77 inches of snowfall.
Culture: Inupiaq, Koyukon Athabascan
Airlines: Wrights Air
Cost of freight: $0.84/lb.
Frequency of flights: Daily flights
Barge Service: NA
Miles of Road: 42.4

[22] The community is accessible to the Dalton Highway via ice road.

Hughes

Alaska Native Village Name: Hut'odlee Kkaakk'et
Translation: "Mouth of the Hut'odleetna"
Language: Central Koyukon Athabascan
Population: 78 (2010 Census)
Location: 221 air miles northwest of Fairbanks
Land Owned by Tribe: No tribal land holdings in fee
Climate: The area experiences a cold, continental climate with extreme temperature differences. The average high temperature during July is 70 °F; the average low during January is well below 0 °F. Extended periods of -40 °F are common. The highest temperature ever recorded was 90 °F; the lowest was -68 °F. Average annual precipitation is 13 inches, with 30 inches of snowfall. The Koyukuk River is ice-free from June through October.
Culture: Koyukon Athabascan
Airlines: Wright Air Service
Cost of freight: $0.88/lb.
Frequency of flights: Daily flights
Barge Service: Yukon River & Road Transport
Miles of Road: 165.7

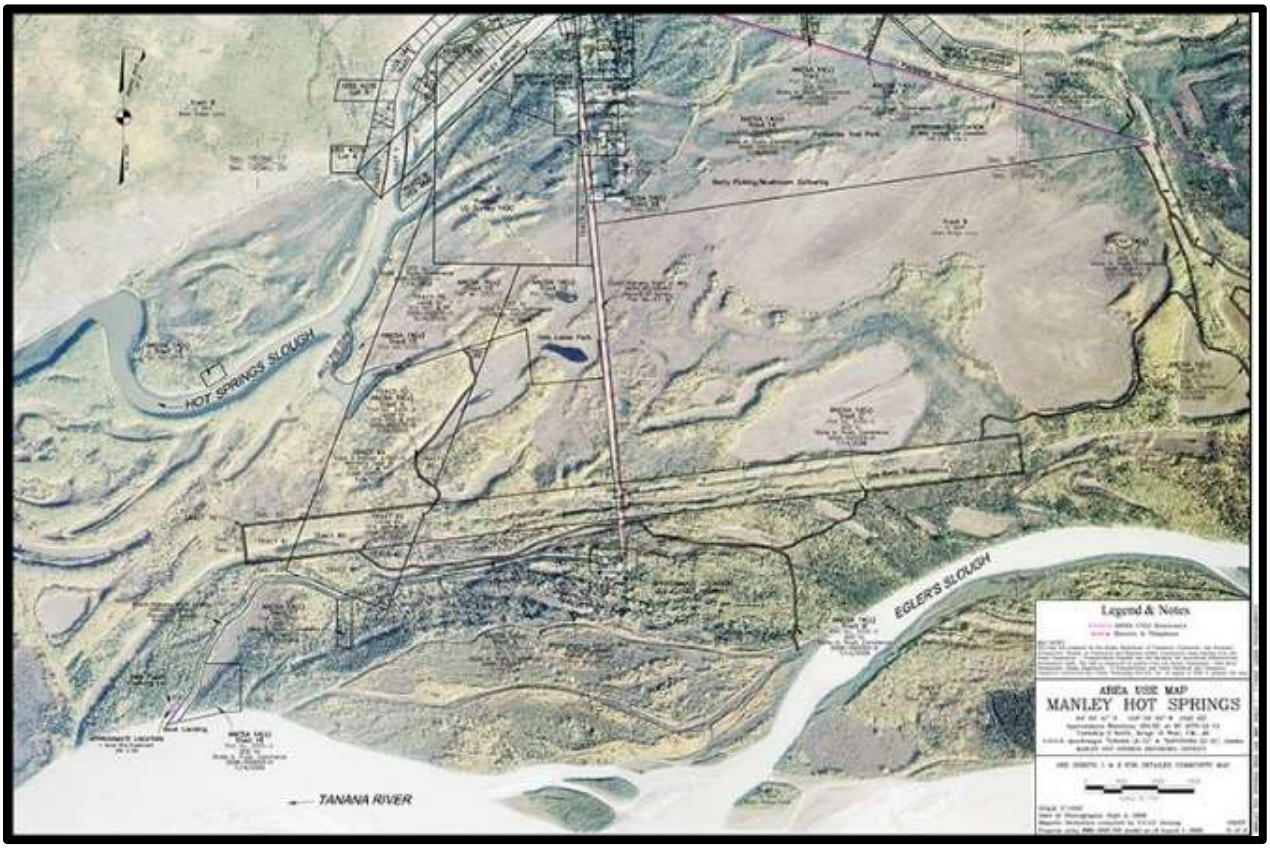


Lake Minchumina

Alaska Native Village Name: Menchuh Mene'
Translation: NA
Language: Koyukon Athabascan
Population: 11 (2010 Census)
Location: North of Mount McKinley in Interior Alaska
Land Owned by Tribe: 0 acres
Climate: Interior Alaska experiences seasonal temperature extremes. January temperatures range from 40 to -70 °F; July temperatures range from 35 to 90 °F. Average annual precipitation is 11 inches.
Culture: Native Americans and Caucasian
Airlines: Wright Air Service
Cost of freight: $0.80/lb.
Frequency of flights: Monday and Thursday
Barge Service: NA
Miles of Road: NA

Manley Hot Springs

Alaska Native Village Name: Too Naaleł Denh
Translation: "Place of Hot Water"
Language: Upper Koyukon Athabascan
Population: 89 (2010 Census)
Location: About 3 miles north of the Tanana River, at the end of the Elliot Highway (160 road miles west of Fairbanks)
Land Owned by Tribe: No tribal land holdings in fee
Climate: The climate is cold and continental. The average daily maximum temperature is in the upper 50 °F in summer, and minimum temperatures during winter range from -6 to -21 °F. Temperature extremes have been measured from -70 to 93 °F. Average annual precipitation is 15 inches, with snowfall of 59 inches. The worst flood in the history of the community was in May 1956. Other floods occurred in 1961, 1962, and 1982.
Culture: Koyukon Athabascan
Airlines: Warbelow Air Ventures
Cost of freight: $0.49/lb.
Frequency of flights: Monday-Friday
Barge Service: NA
Miles of Road: 270.2

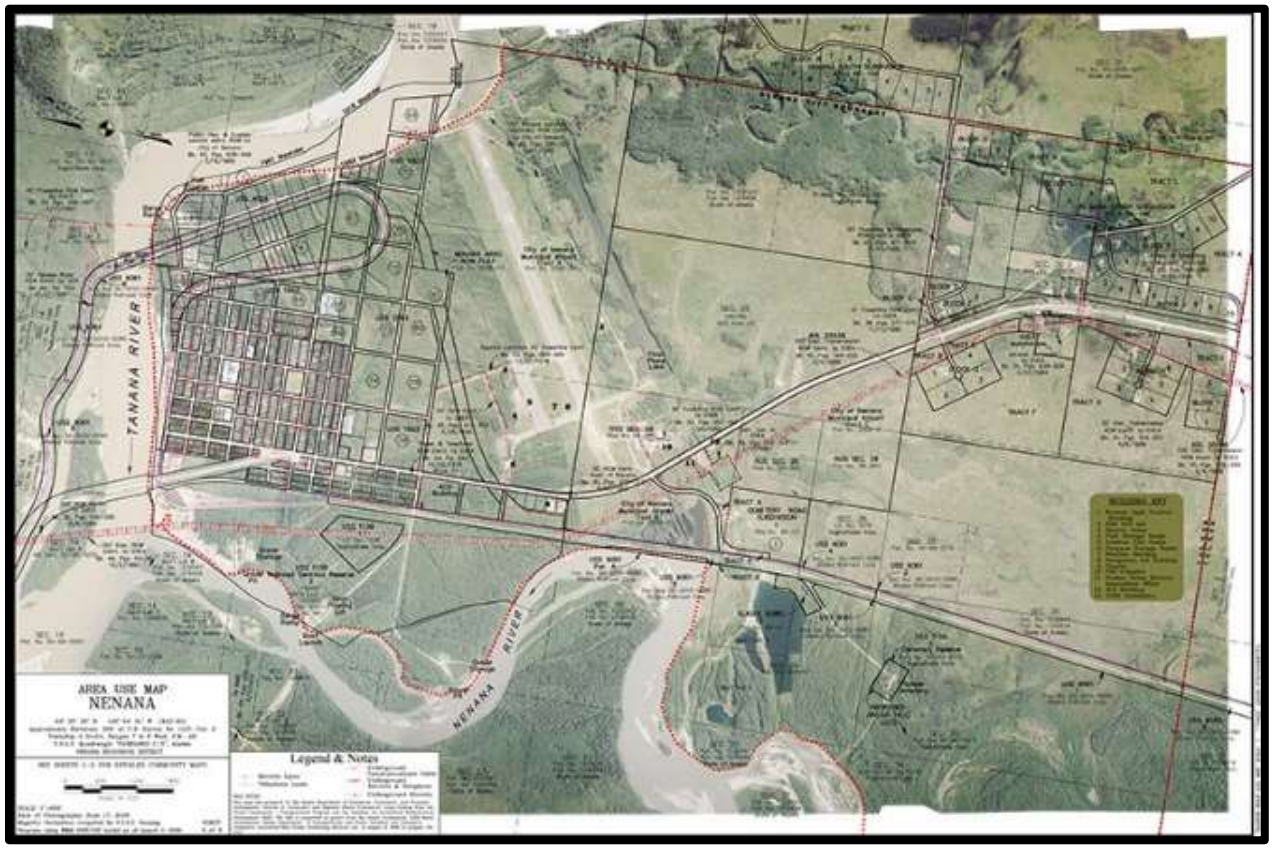


Minto

Alaska Native Village Name: Benhti
Translation: "Among the Lakes"
Language: Tanana Athabascan
Population: 210 (2010 Census)
Location: 130 miles northwest of Fairbanks, 11-mile spur road off of the Elliot Highway
Land Owned by Tribe: 53 acres
Climate: The climate is cold and continental with extreme temperature differences. The average daily maximum during July is in the low 70s; the average daily minimum during January is well below 0 °F. Extended periods of -40 °F and very strong wind chill factors are common during the winter. Average annual precipitation is 12 inches, with 50 inches of snowfall.
Culture: Primarily Tanana Athabascans
Airlines: Warbelow Air Ventures
Cost of freight: $0.40/ lb.
Frequency of flights: Monday- Friday
Barge Service: NA
Miles of Road: 15.5

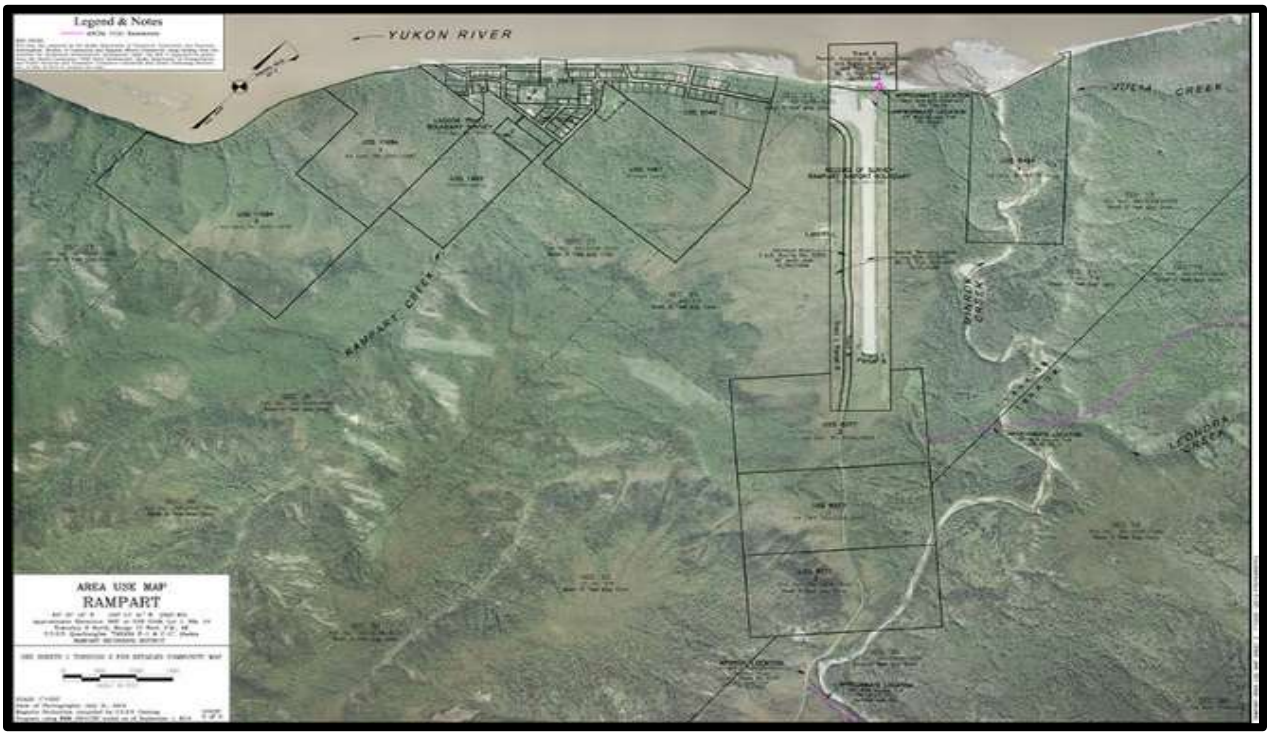
Nenana

Alaska Native Village Name: Toghotthele
Translation: "Mountain that Parallels the River"
Language: Tanana Athabascan
Population: 378 (2010 Census)
Location: 55 road miles southwest of Fairbanks along the George Parks Highway, 304 road miles northeast of Anchorage
Land Owned by Tribe: 63 acres
Climate: Nenana has a cold, continental climate with an extreme temperature range. The average daily maximum during summer months is 65 to 70 °F; the daily minimum during winter is well below 0 °F. The highest temperature ever recorded is 98 °F; the lowest is -69 °F. Average annual precipitation is 11.4 inches, with 48.9 inches of snowfall. The river is ice-free from mid-May to mid-October.
Culture: Mixed
Airlines: No scheduled flights
Cost of freight: N/A
Frequency of flights: By request
Barge Service: Ruby Marine
Miles of Road: 124.5



Rampart[23] [24]

Alaska Native Village Name: Deleł Taaneets
Translation: "Where the Moose Hides Hang"
Language: Upper Koyukon Athabascan
Population: 68 (Current) – 24 (2010 Census)
Location: 100 miles northwest of Fairbanks, 30 miles off of the Elliot Highway
Land Owned by Tribe: 60 acres
Climate: The winters are long and harsh, and the summers are short but warm. After freeze-up, the plateau is a source of cold, continental arctic air. Daily minimum temperatures between November and March are usually below 0 °F. Extended periods of -50 to -60 °F are common. Summer high temperatures run between 65 and 72 °F; a high of 97 °F has been recorded. Total annual precipitation averages 6.5 inches, with 43 inches of snowfall. The Yukon River is ice-free from the end of May through mid-September.
Culture: Predominantly Alaska Native
Airlines: Warbelow Air Ventures
Cost of freight: $0.49/ lb.
Frequency of flights: Monday-Friday
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 32.8



[23] Population in Rampart has greatly increased over the last 5 years.

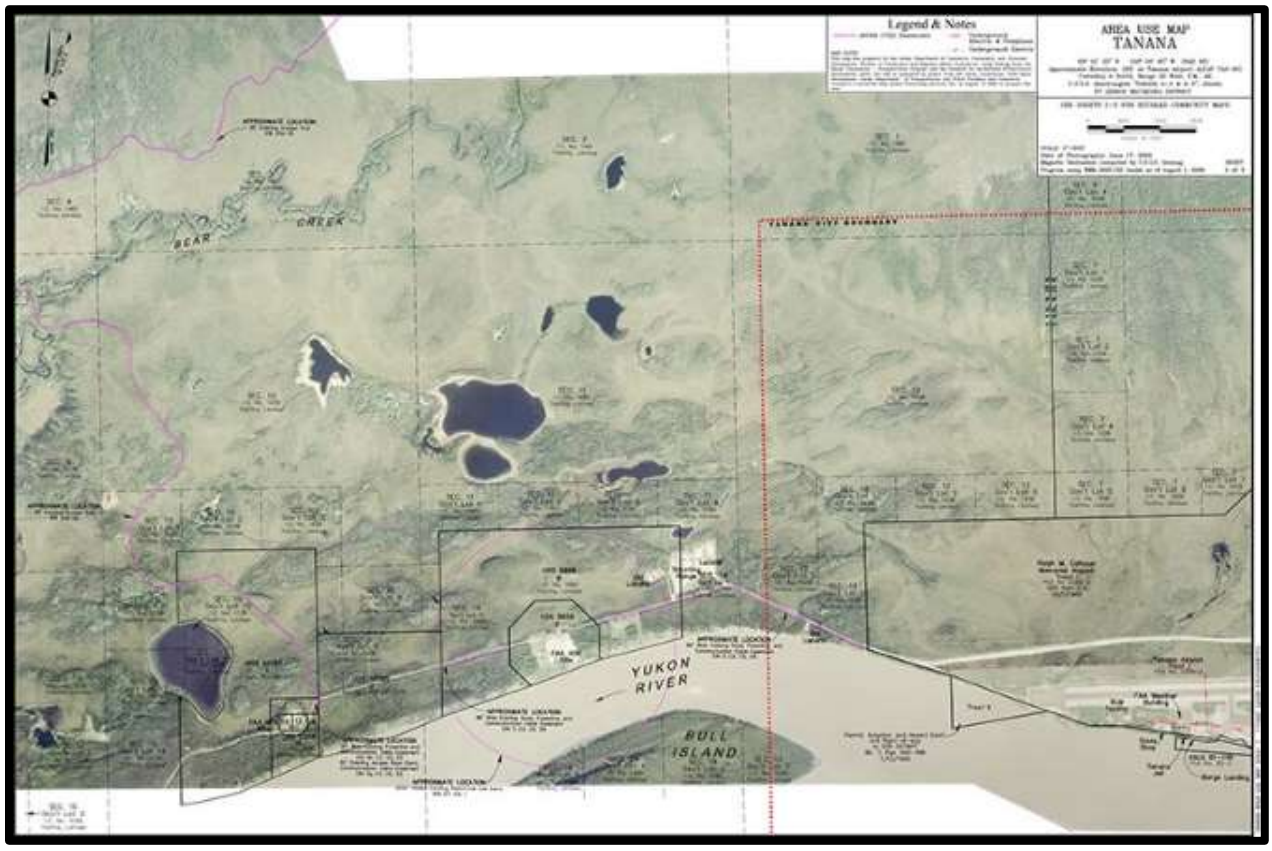
[24] There is a 13 mile ice road from November-April that connects Rampart to the Elliott Highway from Eureka.

Stevens Village

Alaska Native Village Name: Dinyea
Translation: "People Who Live Where the River Comes out of the Canyon into the Flats"
Language: Upper Koyukon Athabascan
Population: 78 (2010 Census)
Location: Middle of the Yukon Flats
Land Owned by Tribe: 279 acres
Climate: The winters are long and harsh, and the summers are short but warm. After freeze-up, the plateau is a source of cold, continental arctic air. Daily minimum temperatures between November and March are usually below 0 °F. Extended periods of -50 to -60 °F are common. Summer high temperatures run 65 to 72 °F; a high of 97 °F was recorded once. Total annual precipitation averages 7 inches, with 43 inches of snowfall. The Yukon River is ice-free from the end of May through mid-September.
Culture: Koyukon
Airlines: NA
Cost of freight: $0.45/ lb.
Frequency of flights: Sunday-Friday
Barge Service: Yukon River & Road Transport
Miles of Road: 188

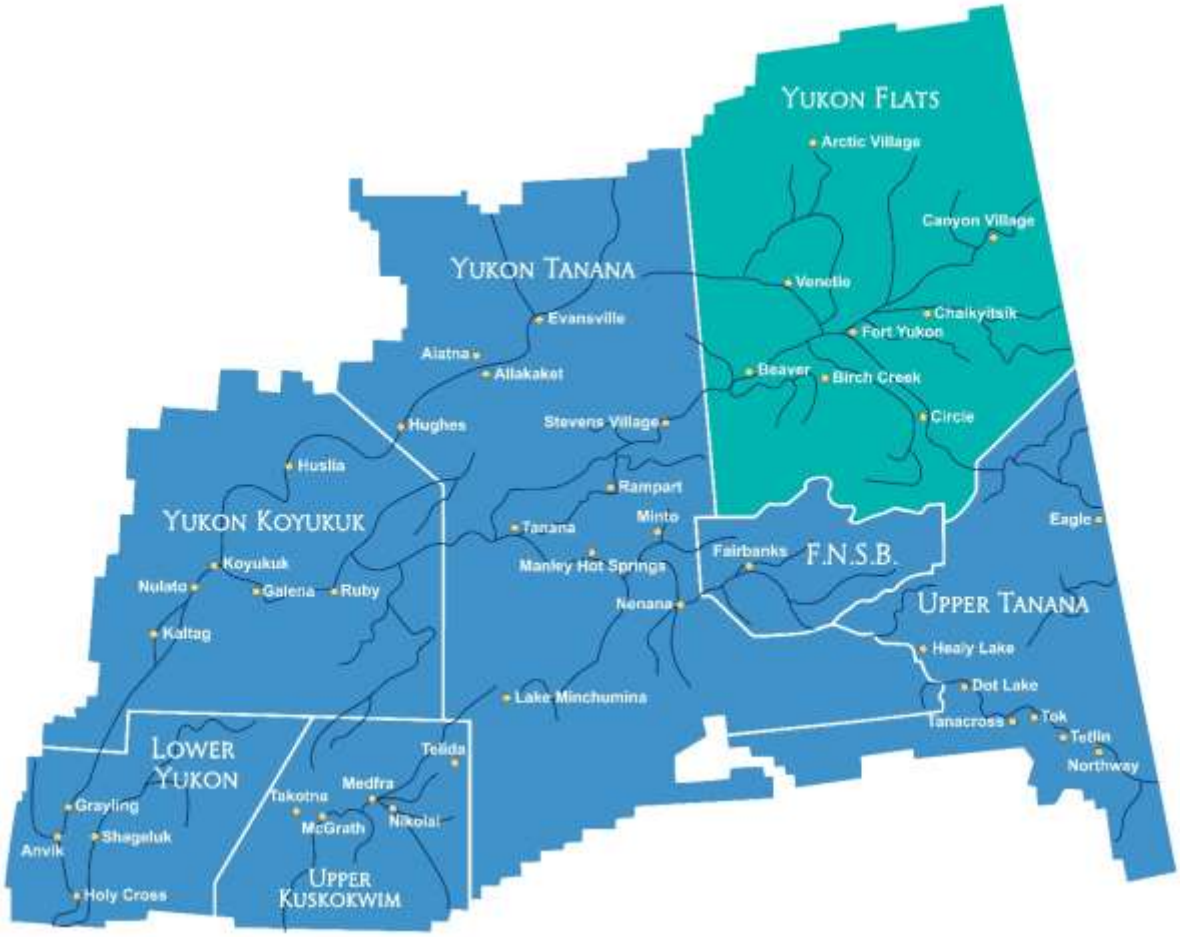
Tanana

Alaska Native Village Name: Nuchalawoyya
Translation: "Where the Two Rivers Meet"
Language: Central and Upper Koyukon Athabascan
Population: 246 (2010 Census)
Location: About 130 miles west of Fairbanks
Land Owned by Tribe: 413 acres
Climate: Tanana experiences a cold, continental climate with temperature extremes. Daily maximum temperatures during July range from 64 to 70 °F; daily minimum temperatures during January are -14 to -48 °F. Extremes have been measured from -71 to 94 °F. Average annual precipitation is 13 inches, with 50 inches of snowfall. The river is ice-free from mid-May through mid-October.
Culture: Mainly Koyukon Athabascan, others include Gwich'in and Tanana Athabascan
Airlines: Wright Air Service and private planes
Cost of freight: $0.63/lb.
Frequency of flights: Daily flights
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 119.6



Yukon Flats Subregion

The Yukon Flats Subregion consists of eight villages in the northern part of Interior Alaska.
The native language of the subregion is Gwich'in;
Villages are primarily located along the Yukon, Chandalar, Porcupine, and Black Rivers;
Transportation access throughout the subregion is reliant on rivers, airlines and the Steese Highway;
The hub for this subregion is located in Fairbanks;
No villages are accessible by ice road;
One village is accessible by road, year round[25];
Three villages are serviced by barge[26].

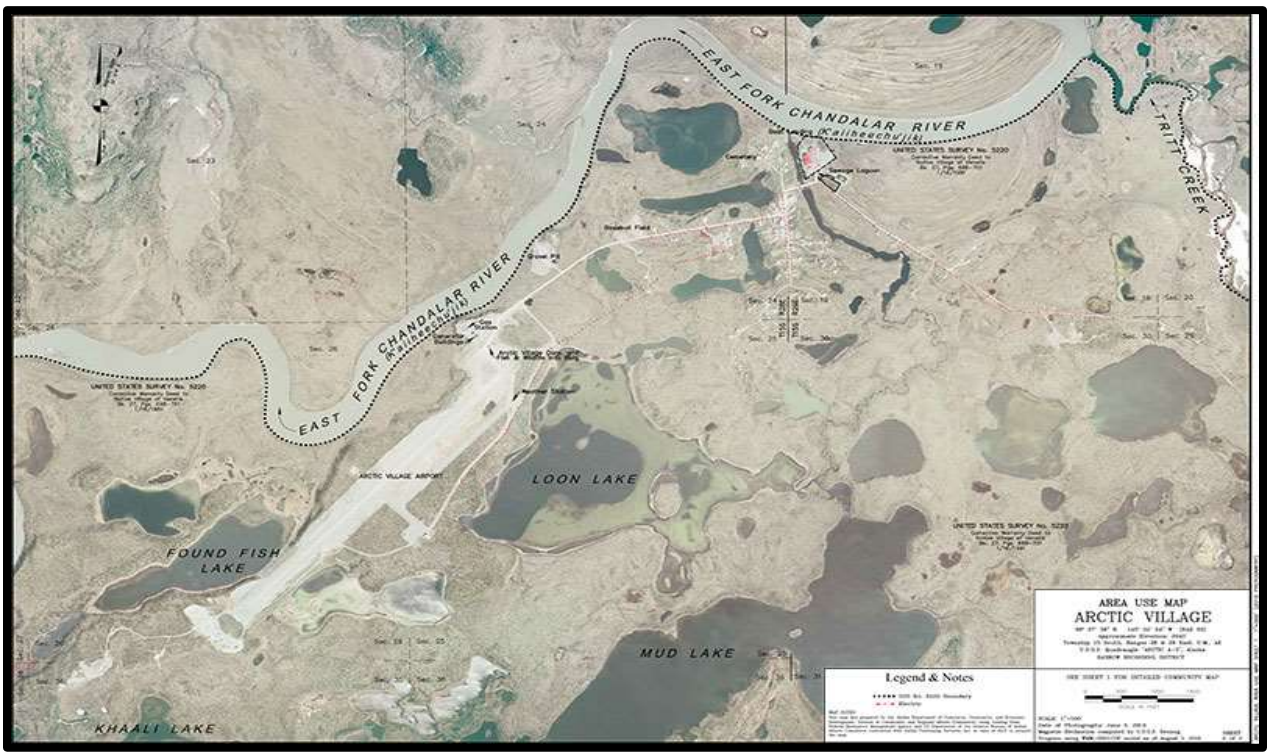


[25] Circle

[26] Beaver, Circle and Fort Yukon

Arctic Village

Alaska Native Village Name: Neets'aii Gwich'in (Vashraii K'oo)
Translation: "Residents of the North Side"
Language: Gwich'in Athabascan
Population: 152 (2010 Census)
Location: East fork of the Chandalar River, 100 miles north of Fort Yukon, 290 miles north of Fairbanks
Land Owned by Tribe[27]: 1,800,353 acres
Climate: Arctic Village has a continental subarctic climate. Winters are long and harsh, and summers are short but warm. The average high temperature range during July is 65 to 72 °F. The average low temperature during January is well below zero. Extended periods of -50 to -60 °F are common. Extreme temperatures have been measured, ranging from a low of -70 to a high of 90 °F. Precipitation averages 9 inches, and snowfall averages 52.8 inches.
Culture: Gwich'in
Airlines: Wright Air Service
Cost of freight: $0.89/lb.
Frequency of flights: Daily flights
Barge Service: NA
Miles of Road: 223.4



[27] Arctic Village and Venetie Tribes share one IRA government.

Beaver

Alaska Native Village Name: Tsee Duu (Gwich'in), Ts'aahudaaneekk'onh Denh (Koyukon)

Translation: "Beaver Village" (Gwich'in), "Where the Forest Fire Burned Out" (Koyukon)

Language: Gwich'in and Koyukon Athabascan

Population: 84 (2010 Census)

Location: 60 air miles southwest of Fort Yukon, 13 miles south of the Arctic Circle, 110 miles north of Fairbanks

Land Owned by Tribe: 10 acres

Climate: Beaver has a continental subarctic climate characterized by seasonal extreme temperatures. The average high temperature during July ranges from 65 to 72 °F. The average low temperature during January is well below zero. Extended periods of -50 to -60 °F are common. Extreme temperatures ranging from a low of -70 to a high of 90 °F have been measured. Precipitation averages 6.5 inches. The average annual snowfall is 43.4 inches. The Yukon River is ice-free from mid-June to mid-October.

Culture: Gwich'in, Koyukon, and Inupiaq

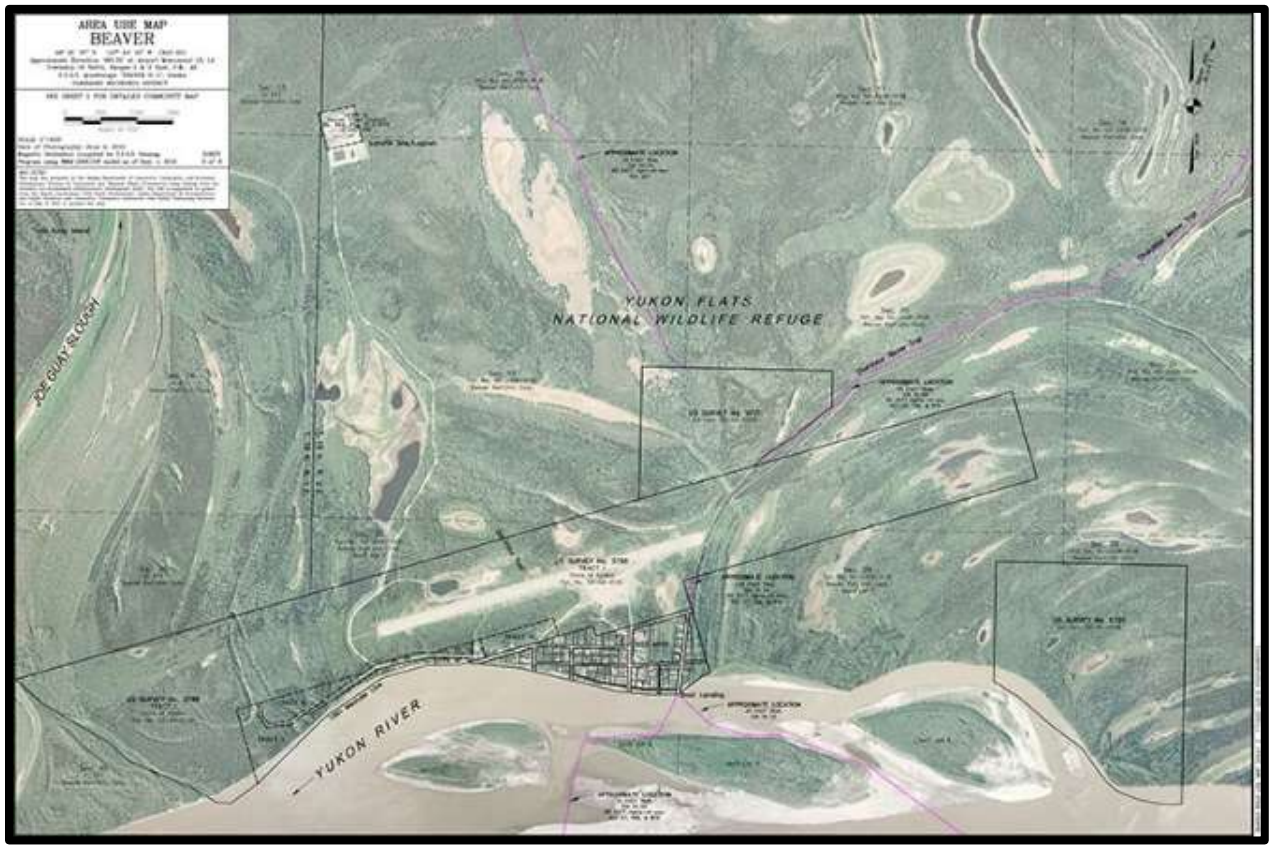
Airlines: Warbelow Air Ventures

Cost of freight: $0.52/lb.

Frequency of flights: Sunday-Friday

Barge Service: Crowley's and Yukon River & Road Transport

Miles of Road: 88

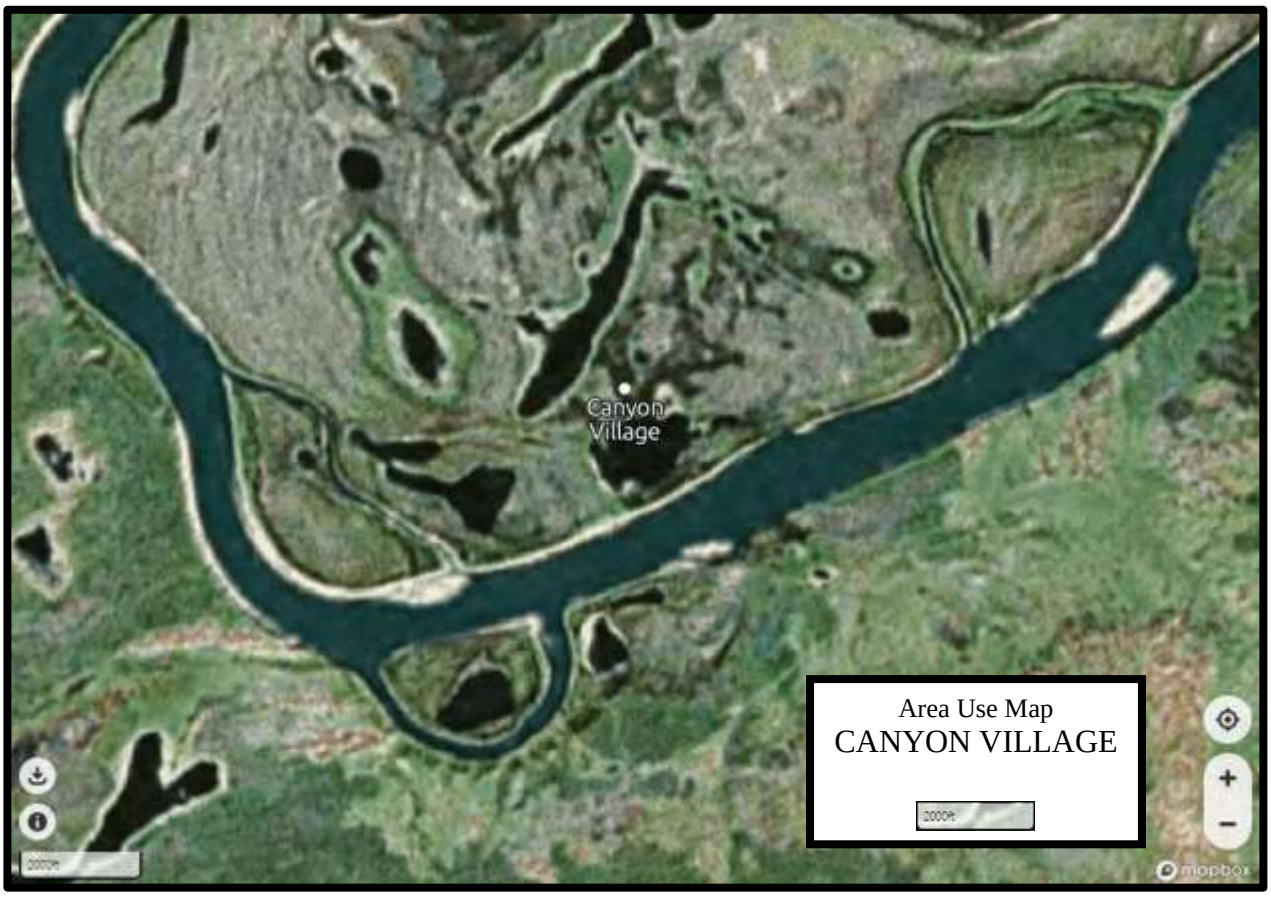


Birch Creek

Alaska Native Village Name: Deenduu
Translation: "People under Mountain"
Language: Gwich'in Athabascan
Population: 33 (2010 Census)
Location: Along Birch Creek, about 26 miles southwest of Fort Yukon
Land Owned by Tribe: 34 acres
Climate: Birch Creek has a continental subarctic climate, characterized by seasonal extremes of temperature. Winters are long and harsh, and summers are warm and short. The average high temperature during July ranges from 65 to 72 °F. The average low temperature during January is well below zero. Extended periods of -50 to -60 °F are common. Extreme temperatures have been measured, ranging from a low of -71 to a high of 97 °F. Annual precipitation averages 6.5 inches, and snowfall averages 43.4 inches per year. Birch Creek is ice-free from mid-June to mid-October.
Culture: Gwich'in
Airlines: Wright Air Service
Cost of freight: $0.74/lb.
Frequency of flights: Monday-Friday
Barge Service: NA
Miles of Road: 8.3

Canyon Village

Language: Gwich'in Athabascan
Population: 0
Location: North of Chalkyitsik
Land Owned by Tribe: 0 acres
Climate: Continental
Culture: Gwich'in
Airlines: No scheduled flights
Cost of freight: NA
Frequency of flights: NA
Barge Service: NA
Miles of Road: NA



Chalkyitsik

Alaska Native Village Name: Jałgiitsik
Translation: "Fish Hooking Place"
Language: Gwich'in Athabascan
Population: 69 (2010 Census)
Location: South bank of the Black River, about 50 miles east of Fort Yukon
Land Owned by Tribe: 26 acres
Climate: Chalkyitsik has a continental arctic climate, characterized by seasonal extremes of temperature. Winters are long and harsh, and summers warm and short. The average high temperature during July ranges from 65 to 72 °F. The average low temperature during January is well below zero. Extended periods of -50 to -60 °F are common. Extreme temperatures, ranging from a low of -71 to a high of 97 °F, have been measured. Annual precipitation averages 6.5 inches, and annual snowfall averages 43.4 inches. The Black River is ice-free from mid-June to mid-October.
Culture: Mainly Alaska Native population
Airlines: Wright Air Service
Cost of freight: $0.70/lb.
Frequency of flights: Daily flights
Barge Service: No longer provided
Miles of Road: 179.6

Circle

Alaska Native Village Name: Danzhit Hanlą̨
Translation: "The Place Where the River Comes out of the Canyons and the Flats Start"
Language: Gwich'in Athabascan
Population: 104 (2010 Census)
Location: 153 road miles from Fairbanks off of the Steese Highway, about 60 miles upstream from Fort Yukon
Land Owned by Tribe: 19 acres
Climate: Continental Subarctic
Culture: Mainly Athabascan
Airlines: Warbelow Air Ventures
Cost of freight: $0.51/lb.
Frequency of flights: Monday-Friday
Barge Service: Yukon Barge, Crowley Marine, Ruby Marine and Yukon River & Road Transport
Miles of Road: 37.4 roads, 145.3 miles of the Steese Highway

Fort Yukon

Alaska Native Village Name: Gwichyaa Zhee
Transition: "House on the Flats"
Language: Gwich'in Athabascan
Population: 583 (2010 Census)
Location: Confluence of the Yukon River and the Porcupine River, about 145 air miles northeast of Fairbanks
Land Owned by Tribe: 103,684 acres
Climate: The winters are long and harsh, and the summers are short but warm. After freeze-up, the plateau is a source of cold, continental arctic air. Daily minimum temperatures between November and March are usually below 0 °F. Extended periods of -50 to -60 °F are common. Summer high temperatures run 65 to 72 °F; a high of 97 °F has been recorded. Total annual precipitation averages 6.58 inches, with 43.4 inches of snowfall. The Yukon River is ice-free from the end of May through mid-September
Culture: Gwich'in
Airlines: Wright Air Service
Cost of freight: $0.60/lb.
Frequency of flights: Daily flights
Barge Service: Yukon Barge, Crowley Marine, Ruby Marine and Yukon River & Road Transport
Miles of Road: 43.5

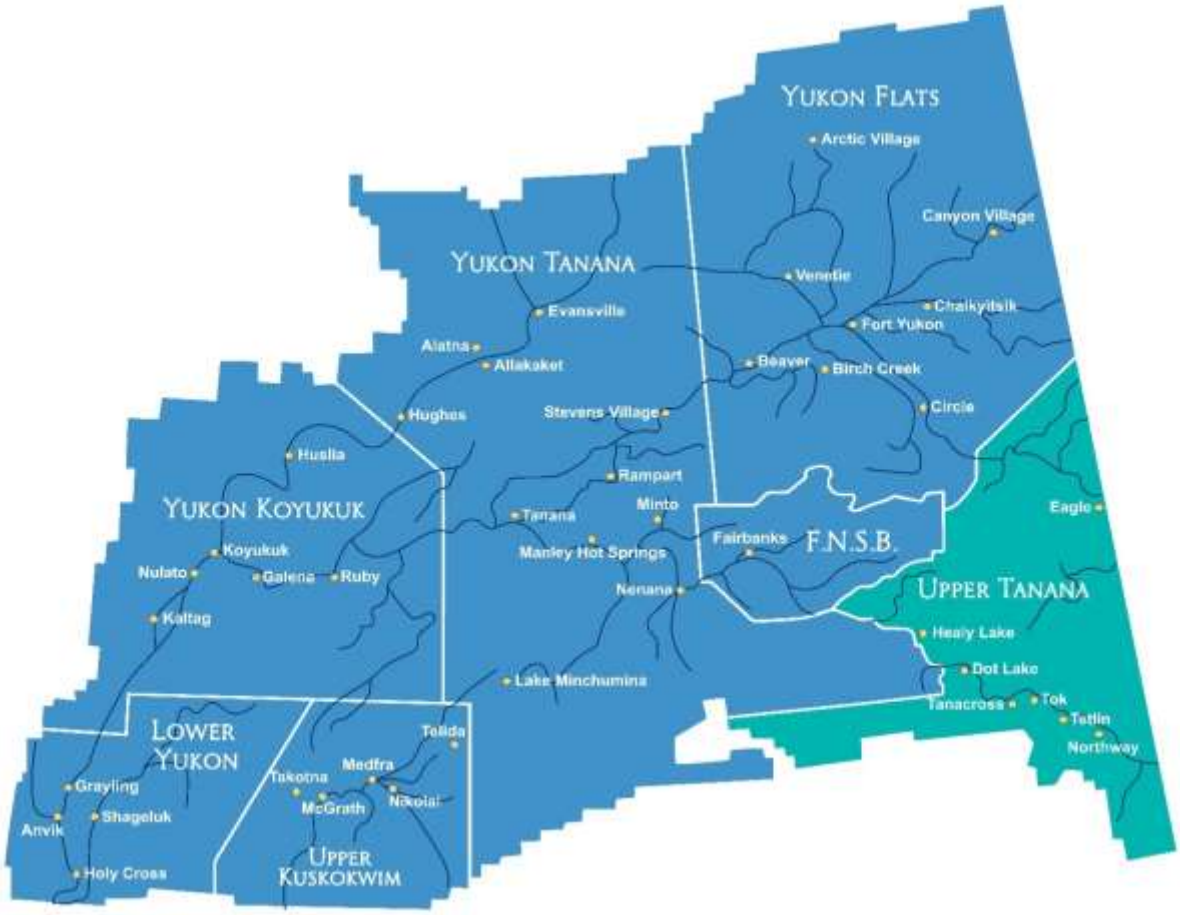
Venetie

Alaska Native Village Name: Vįįhtąįį
Translation: "Moose and Caribou Trail Between Two Hills"
Language: Gwich'in Athabascan
Population: 149 (2010 Census)
Location: North side of the Chandalar River, 45 miles northwest of Fort Yukon
Land Owned by Tribe[28]: 1,800,353 acres
Climate: The winters are long and harsh, and the summers are short but warm. Daily minimum temperatures between November and March are usually below 0 °F. Extended periods of -50 to -60 °F are common. Summer high temperatures run 65 to 72 °F; a high of 97 °F has been recorded. Total annual precipitation averages 6.6 inches, with 43 inches of snowfall. The Chandalar River is ice-free from the end of May through mid-September.
Culture: Gwich'in
Airlines: Wright Air Service
Cost of freight: $0.80/lb.
Frequency of flights: Daily flights
Barge Service: None
Modes of Transportation: Plane, boat, ATV, motor bike, snow machine, dog sled
Miles of Road: 323.7

[28] Arctic Village and Venetie Tribes share one IRA government.

Upper Tanana Subregion

The Upper Tanana Subregion consists of seven village in the southeast part of Interior Alaska.
The native languages of the subregion are Tanacross and Upper Tanana;
Villages are primarily located along the Tanana, Yukon, Healy, Tok and Nebesna Rivers;
Transportation access throughout the subregion is reliant on airlines and the Alaska and Taylor Highways;
The hub for this subregion is located in Fairbanks;
One village is accessible by ice road[29];
Five villages are accessible by road, year round[30] [31];
One village is serviced by barge[32].



[29] Healy Lake

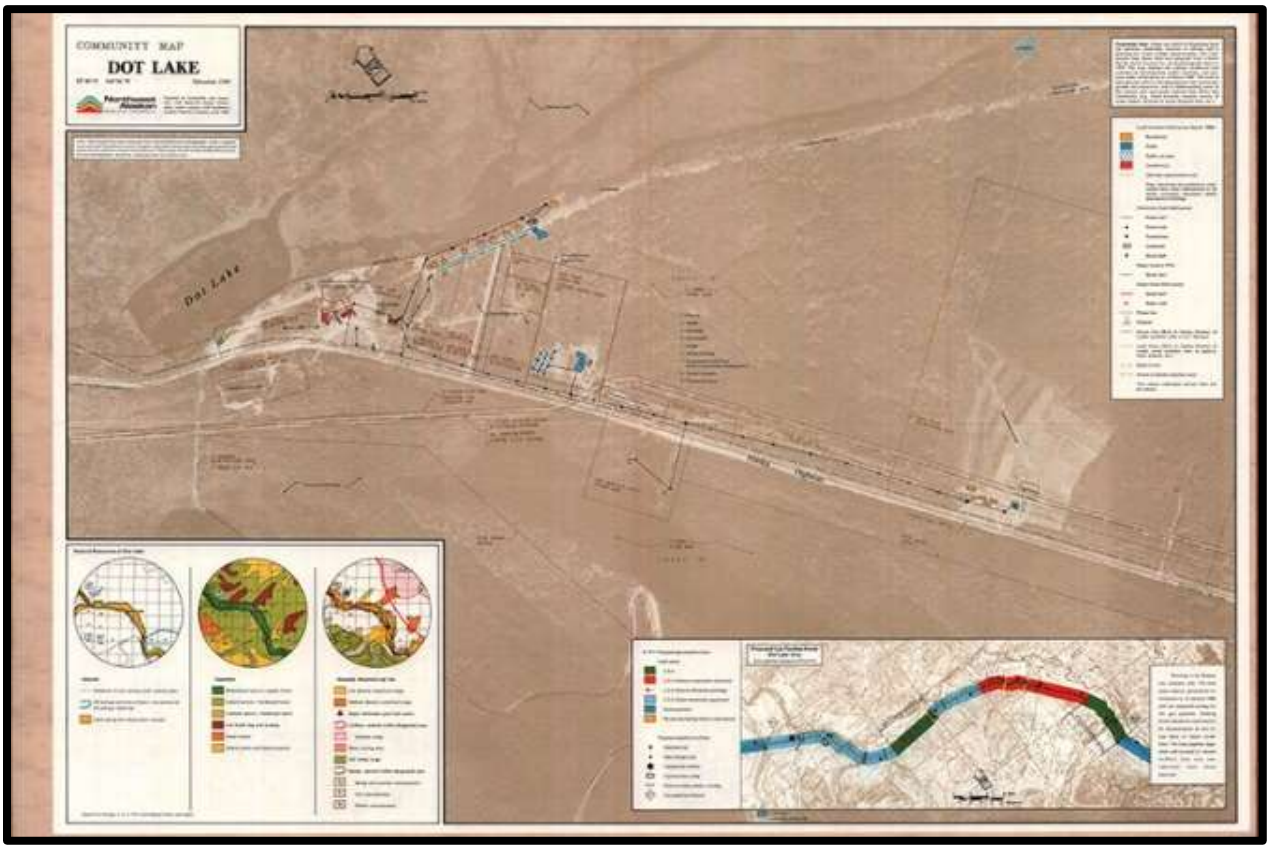
[30] Dot Lake, Northway, Tanacross, Tetlin and Tok

[31] Eagle is accessible by road seasonally through the Taylor Highway. The state does not maintain the road during the winter months.

[32] Eagle

Dot Lake

Alaska Native Village Name: Kalt'aaddh Menn'
Translation: "Lily Pad Lake"
Language: Tanacross Athabascan
Population: 62 (2010 Census)
Location: Along the Alaska Highway, between Delta Junction and Tok (50 miles of Tok), 155 road miles southeast of Fairbanks
Land Owned by Tribe: 10 acres
Climate: Dot Lake is located in the continental climatic zone, where winters are cold and summers are warm. In winter, cool air settles in the valley, and ice fog and smoke conditions are common. The average low temperature during December, January, and February is -22 °F. The average high temperature during June, July, and August is 65 °F. Extreme temperatures ranging from a low of -75 to a high of 90 °F have been measured. Average annual precipitation is 9 inches, and annual snowfall averages 27 inches.
Culture: Alaska Native and Caucasian
Airlines: 40 mile air
Cost of freight: $0.40/lb.
Frequency of flights: Emergency use
Barge Service: NA
Miles of Road: 4.8



Eagle

Alaska Native Village Name: Ninäk'ayy
Translation: "On Our Land"
Language: Hän Athabascan
Population: 69 (2010 Census)
Location: Southern bank of the Yukon River, 8 miles away from the Alaska/Canada border
Land Owned by Tribe: 95 acres
Climate: Interior Alaska experiences seasonal temperature extremes. January temperatures range from -22 to -2 °F; July temperatures range from 50 to 72 °F. Average annual precipitation is 11.3 inches. Ice fog is common during the winter.
Culture: Alaska Native, Caucasian, two or more races
Airlines: Everts Air, 40 Mile Air
Cost of freight: $0.73/lb., $0.50/lb.
Frequency of flights: Monday-Friday, Flag stop when needed
Barge Service: Yukon River & Road Transport
Miles of Road: 45.1

Area Use Map
EAGLE

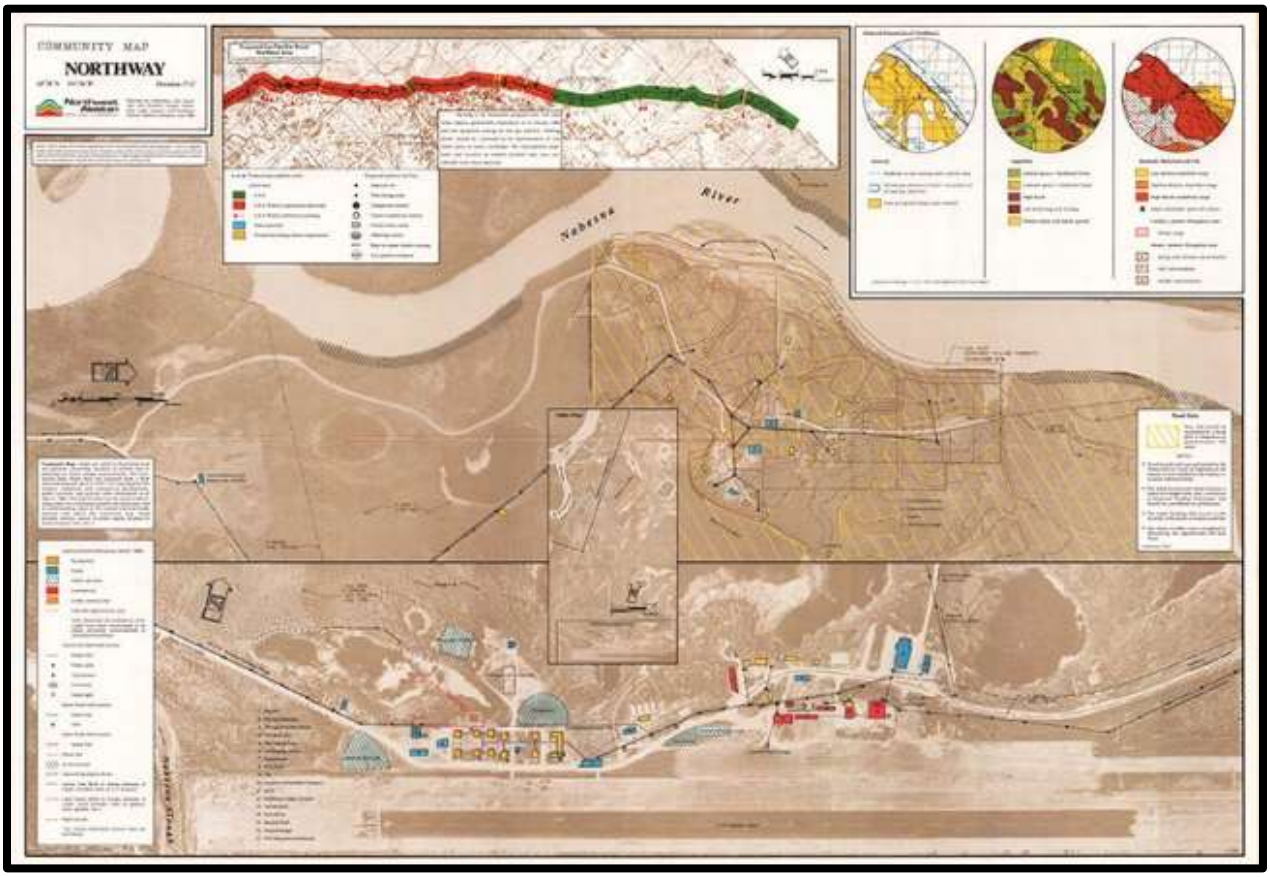
Healy Lake[33]

Alaska Native Village Name: Mendas Cha'ag
Translation: "Body of Water with an Outlet"
Language: Tanacross Athabascan
Population: 13 (2010 Census)
Location: 109 miles southeast of Fairbanks, 29 miles east of Delta Junction, off of Cummings Road, about 6 more miles by snow machine (in the winter) or about 25 miles by boat over the Tanana River and Healy River (in the summer)
Land Owned by Tribe: 166 acres
Climate: The area lies within the continental climatic zone, with cold winters and warm summers. Average temperatures range from -32 to 72 °F.
Culture: Alaska Native, Caucasian
Airlines: 40 Mile Air
Cost of freight: $0.40/lb.
Frequency of flights: Monday. Wednesday and Friday
Barge Service: NA
Miles of Road: 207.4

[33] The community is accessible from December – April through the Alaska Highway, nine miles down Cummins Road and six miles over two channels of the Tanana River and Healy Lake ice road.

Northway

Alaska Native Village Name: K'ehtthiign
Translation: "Lake Outlet"
Language: Upper Tanana Athabascan
Population: 242 (2010 Census)
Location: Off of the Alaska Highway, on Nine-Mile Spur Road, about 42 miles from the Alaska/Canada border, 50 miles from Tok
Land Owned by Tribe: 23 acres
Climate: Northway lies in the Continental climate zone, with long, cold winters and relatively warm summers. Temperatures range from -27 to 70 °F. The average low temperature in January is -27 °F; the average high during July is 69 °F. Extreme temperatures have been recorded from -72 to 91 °F. Average precipitation is 10 inches per year; snowfall averages 30 inches annually.
Culture: Alaska Native, white, two or more races
Airlines: 40 Mile Air
Cost of freight: $0.50/lb.
Frequency of flights: Tuesday and Thursday
Barge Service: NA
Miles of Road: 72.4

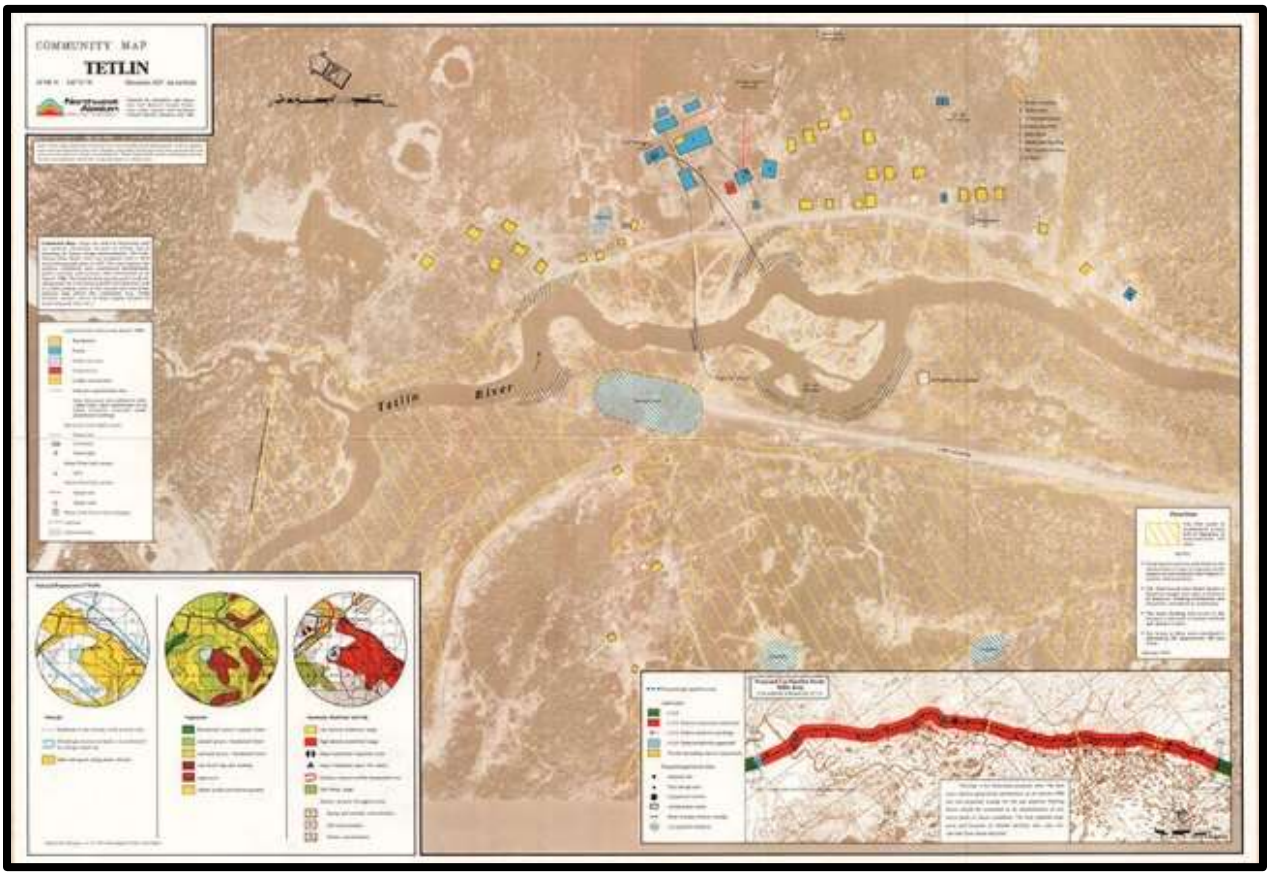


Tanacross

Alaska Native Village Name: Taats'altey
Translation: "Where We Cross the River"
Language: Tanacross Athabascan
Population: 136 (2010 Census)
Location: South bank of the Tanana River, 12 miles northwest of Tok
Land Owned by Tribe: No tribal land holdings in fee
Climate: Tanacross lies within the continental climatic zone, with cold winters and warm summers. In the winter, cold air settles in the valley and ice fog and smoke are common. The average low during January is -22 °F; the average high during July is 65 °F. Extreme temperatures have been measured from -75 to 90 °F.
Culture: Alaska Native, white, other
Airlines: No regularly scheduled flights
Cost of freight: NA
Frequency of flights: NA
Barge Service: NA
Miles of Road: 5.1

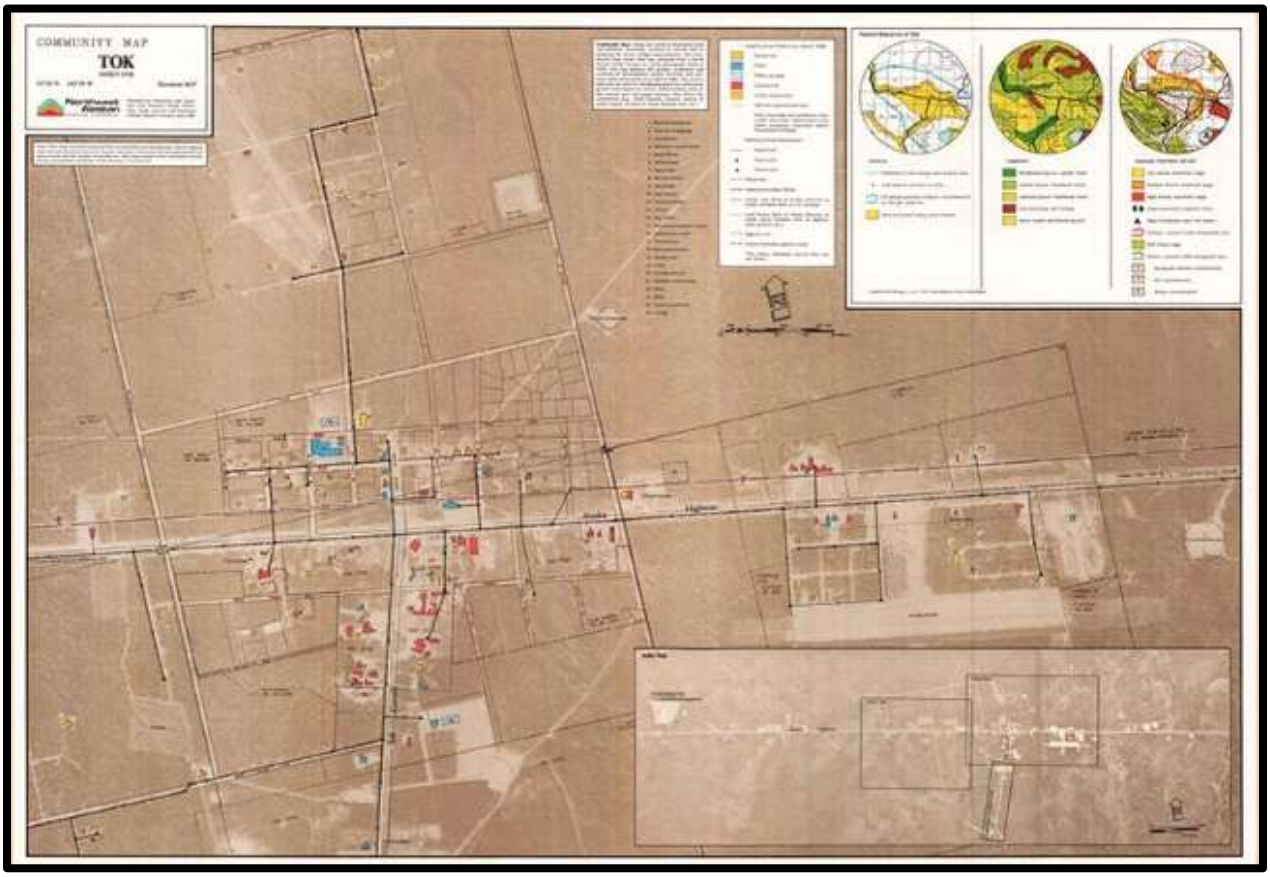
Tetlin

Alaska Native Village Name: Teełąy
Translation: "Stream Going Down"
Language: Upper Tanana Athabascan
Population: 130 (2010 Census)
Location: Along the Tetlin River, near the headwaters of the Tanana River, about 230 miles south of Fairbanks, 25 miles from Tok, 65 miles from the Alaska/Canada border
Land Owned by Tribe: 742,771 acres
Climate: Tetlin lies within the continental climatic zone, with cold winters and warm summers. In the winter, cold air settles in the valley and ice fog and smoke are common. The average low during January is -32 °F; the average high during July is 72 °F. Extreme temperatures have been measured from -71 to 99 °F.
Culture: Mainly Alaska Native
Airlines: 40 Mile Air
Cost of freight: About $0.50/lb.
Frequency of flights: No scheduled flights
Barge Service: NA
Miles of Road: 158.1



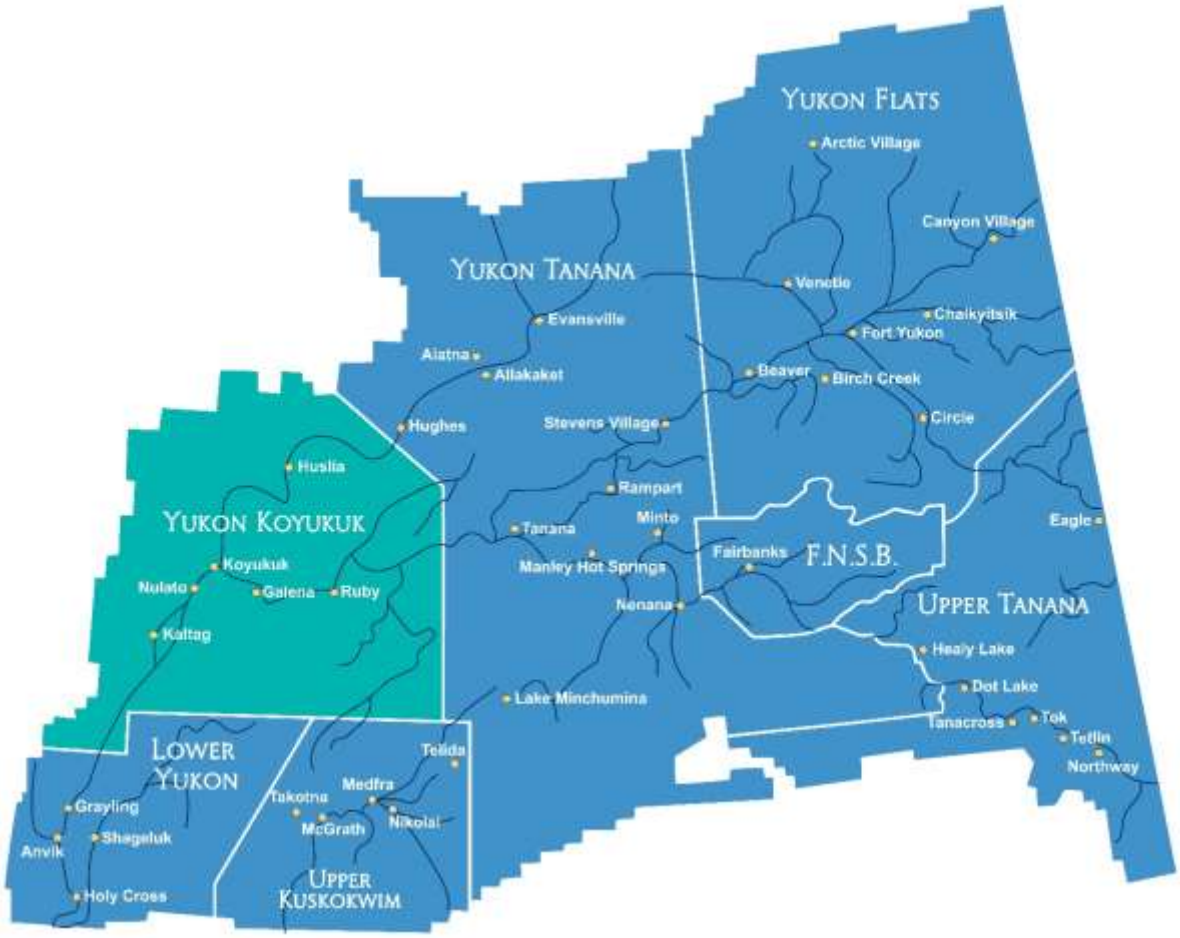
Tok

Language: Tanacross and Upper Tanana Athabascan
Population: 1,258 (2010 Census)
Location: Lies on a large, flat alluvial plain of the Tanana Valley
Land Owned by Tribe: 0 acres
Climate: Tok is in the continental climate zone, with cold winters and warm summers. In the winter, ice fog and smoke conditions are common. The average low temperature during January is -32 °F; the average high during July is 72 °F. Extreme temperatures have been measured from -71 to 99 °F. Annual precipitation averages 11 inches, with 33 inches of snow.
Culture: Caucasian, African American, Alaska Native, Asian, other
Airlines: 40 Mile Air
Cost of freight: $0.45/lb.
Frequency of flights: Monday-Friday
Barge Service: NA
Miles of Road: NA



Yukon Koyukuk Subregion

The Yukon Koyukuk Subregion consists of six villages in the northwest part of Interior Alaska.
The native languages of the subregion are Lower & Central Koyukon;
Villages are primarily located along the Koyukuk and Yukon Rivers;
Transportation access throughout the subregion is reliant on rivers and airlines;
The hub for this subregion is located in Fairbanks;
Four villages are accessible by ice road[34];
No villages are accessible by road, year round;
All villages are serviced by barge[35].



[34] Galena, Kaltag, Koyukuk and Nulato have ice roads to each community.

[35] Galena, Huslia, Kaltag, Koyukuk, Nulato and Ruby

Galena (Louden)

Alaska Native Village Name: Notaalee Denh

Translation: "The Place on the River Where the Water Rushes against the Bank and is Pushed Away from It"

Language: Central Koyukon Athabascan

Population: 470 (2010 Census)

Location: Along the north bank of the Yukon River, 270 air miles west of Fairbanks

Land Owned by Tribe: 1 acre

Climate: The area experiences a cold, continental climate with extreme temperature differences. The average daily high temperature during July is in the low 70s; the average daily low temperature during January ranges from 10 to below 0 °F. Sustained temperatures of -40 °F are common during winter. Extreme temperatures have been measured from -64 to 92 °F. Annual precipitation averages 12.7 inches, with 60 inches of snowfall. The river is ice-free from mid-May through mid-October.

Culture: Koyukon Athabascan, white, African American, two or more races

Airlines: Wright Air Service, Ravn Alaska

Cost of freight: $0.90/lb.

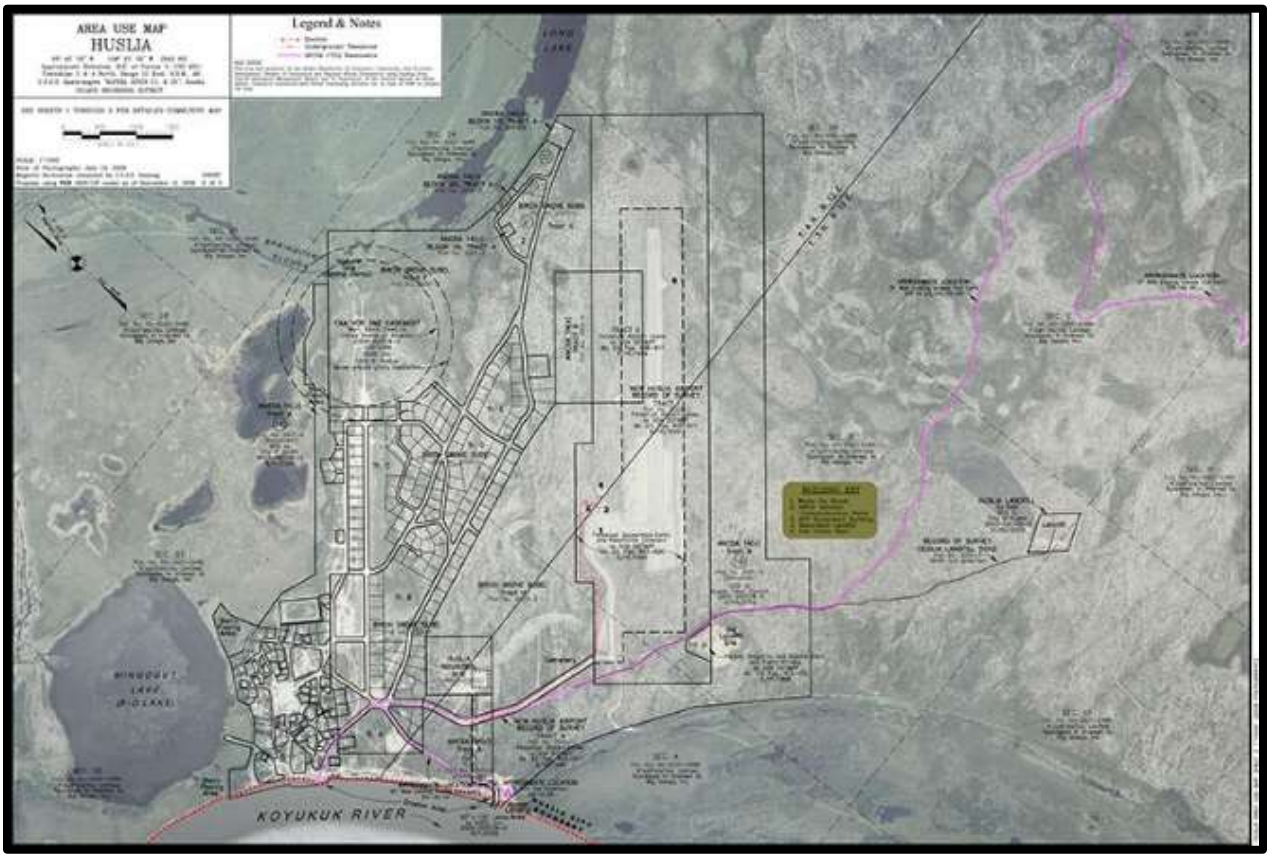
Frequency of flights: Daily flights

Barge Service: Ruby Marine and Yukon River & Road Transport

Miles of Road: 45 miles of developed roads, 276.8 miles of undeveloped roads

Huslia

Alaska Native Village Name: Ts'aateyhdenaadekk'onh Denh
Translation: "Place Where a Forest Fire Burned Out to the River on the Hill"
Language: Central Koyukon Athabascan
Population: 275 (2010 Census)
Location: Along the north bank of the Koyukuk River, about 170 river miles northwest of Galena, 290 air miles west of Fairbanks
Land Owned by Tribe: 653 acres
Climate: The area has a cold, continental climate with extreme temperature differences. The average daily maximum temperature is 72 °F during July; the average minimum is below 0 °F during January. Record temperatures have been recorded from -65 to above 90 °F. The annual precipitation averages 13 inches, with 70 inches of snowfall. The Koyukuk River is ice-free from May through September.
Culture: Koyukon Athabascan, white, some Pacific Islander, two or more races
Airlines: Wright Air Service, Ravn Alaska
Cost of freight: $0.90/lb.
Frequency of flights: Daily flights, Sunday-Friday
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 68

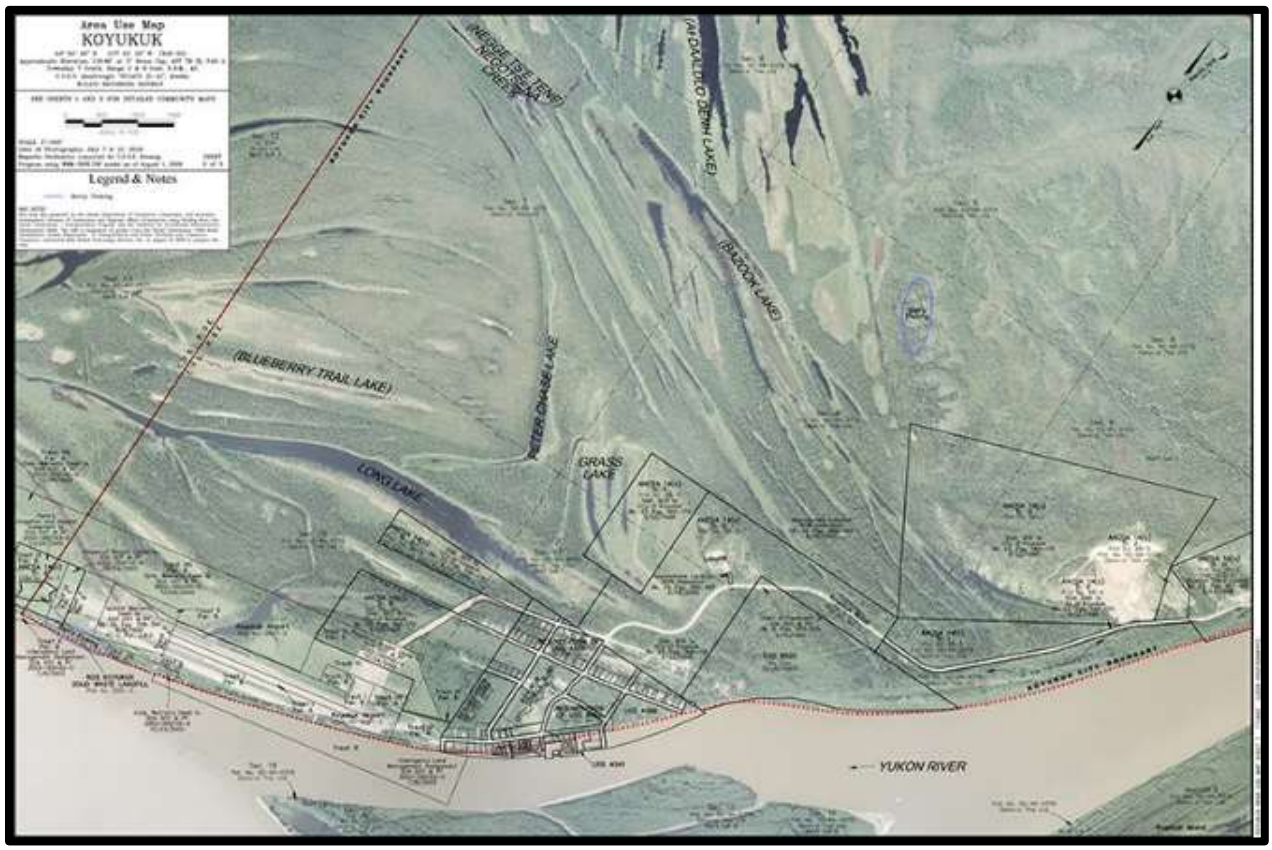


Kaltag

Alaska Native Village Name: Ggaaɬ Doh
Translation: "King Salmon Camp"
Language: Lower Koyukon Athabascan
Population: 190 (2010 Census)
Location: Along the west bank of the Yukon River, 75 miles west of Galena, 335 west of Fairbanks
Land Owned by Tribe: 1 acre
Climate: The area experiences a cold, continental climate with extreme temperature differences. The average daily high temperature during July is in the low 70s °F; the average daily low temperature during January ranges from 10 to below 0 °F. Sustained temperatures of -40 °F are common during winter. Extreme temperatures have been measured from -55 to 90 °F. Annual precipitation is 16 inches, with 74 inches of snowfall annually. The river is ice-free from mid-May through mid-October.
Culture: Koyukon Athabascan, white, two or more races
Airlines: Wright Air Service, Ravn Alaska
Cost of freight: $1.17/lb.
Frequency of flights: Sunday-Friday, Monday-Sunday
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 203.8

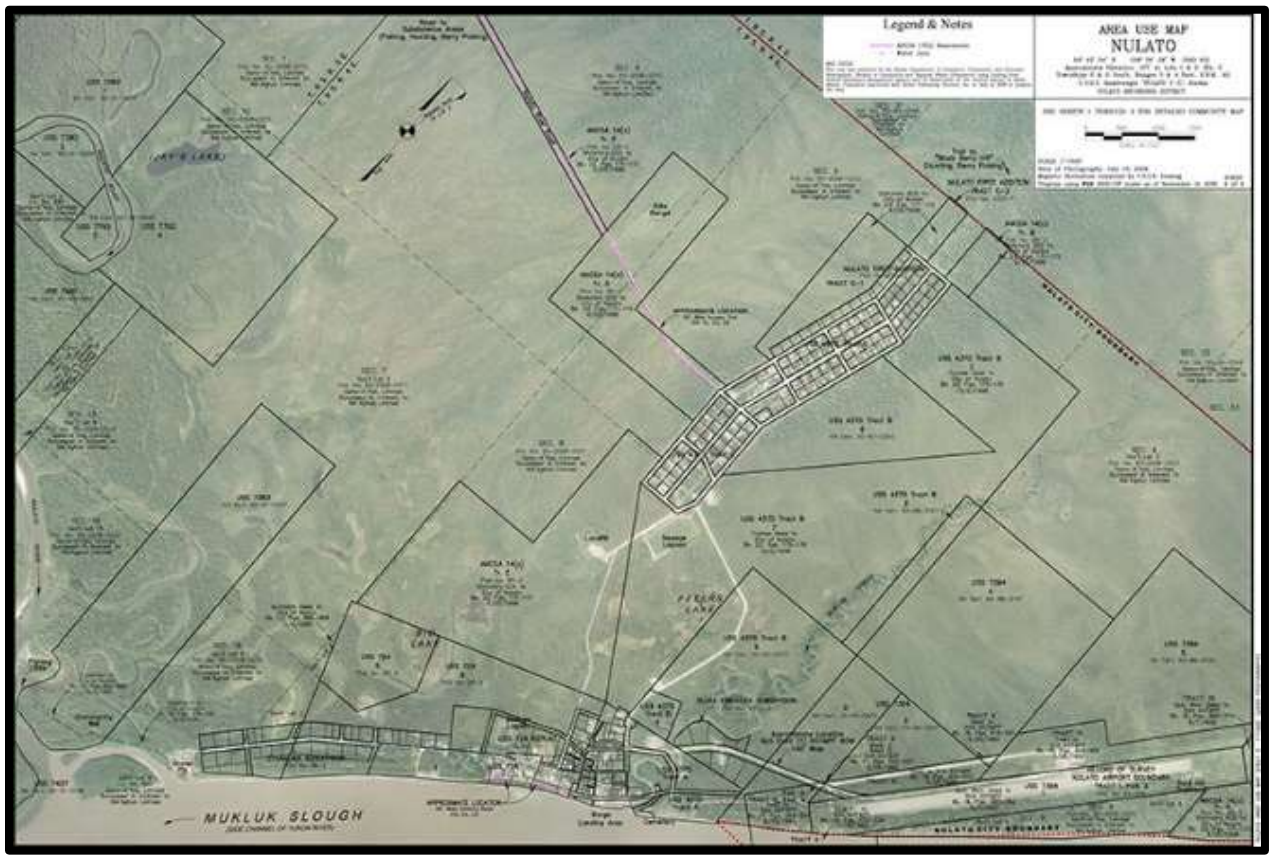
Koyukuk

Alaska Native Village Name: Meneelghaadze' T'oh
Translation: "Village at the Base of the Bluff"
Language: Central Koyukon Athabascan
Population: 96 (2010 Census)
Location: Along the Yukon River, near the mouth of the Koyukuk River, 31 miles west of Galena, 290 air miles west of Fairbanks
Land Owned by Tribe: 49 acres
Climate: The area experiences a cold, continental climate with extreme temperature differences. The average daily high temperature during July is in the low 70s; the average daily low temperature during January ranges from 10 to below 0 °F. Sustained temperatures of -40 °F are common during winter. Extreme temperatures have been measured from -64 to 92 °F. Annual precipitation averages 13 inches, with 60 inches of snowfall annually. The river is ice-free from mid-May through mid-October.
Culture: Primarily Koyukon Athabascan
Airlines: Wright Air Service, Ravn Alaska
Cost of freight: $1.01/lb.
Frequency of flights: Daily flights, Monday-Friday
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 91.3



Nulato

Alaska Native Village Name: Noolaaghe Doh
Translation: "Chum Salmon Fish Camp"
Language: Lower Koyukon Athabascan
Population: 264 (2010 Census)
Location: Along the west bank of the Yukon River, 35 miles west of Galena, 310 air miles west of Fairbanks
Land Owned by Tribe: Less than a half acre
Climate: The area experiences a cold, continental climate with extreme temperature differences. The average daily maximum during July is in the lower 70s °F; the average daily minimum during January is well below 0 °F. Several consecutive days of -40 °F is common each winter. The highest temperature ever recorded is 90 °F; the lowest is -55 °F. Average annual precipitation is 16 inches, with 74 inches of snowfall. The Yukon River is ice-free from mid-May through mid-October.
Culture: Predominantly Koyukon Athabascan
Airlines: Wright Air Service, Ravn Alaska
Cost of freight: $1.01/lb.
Frequency of flights: Daily flights, Monday-Friday
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 39.5



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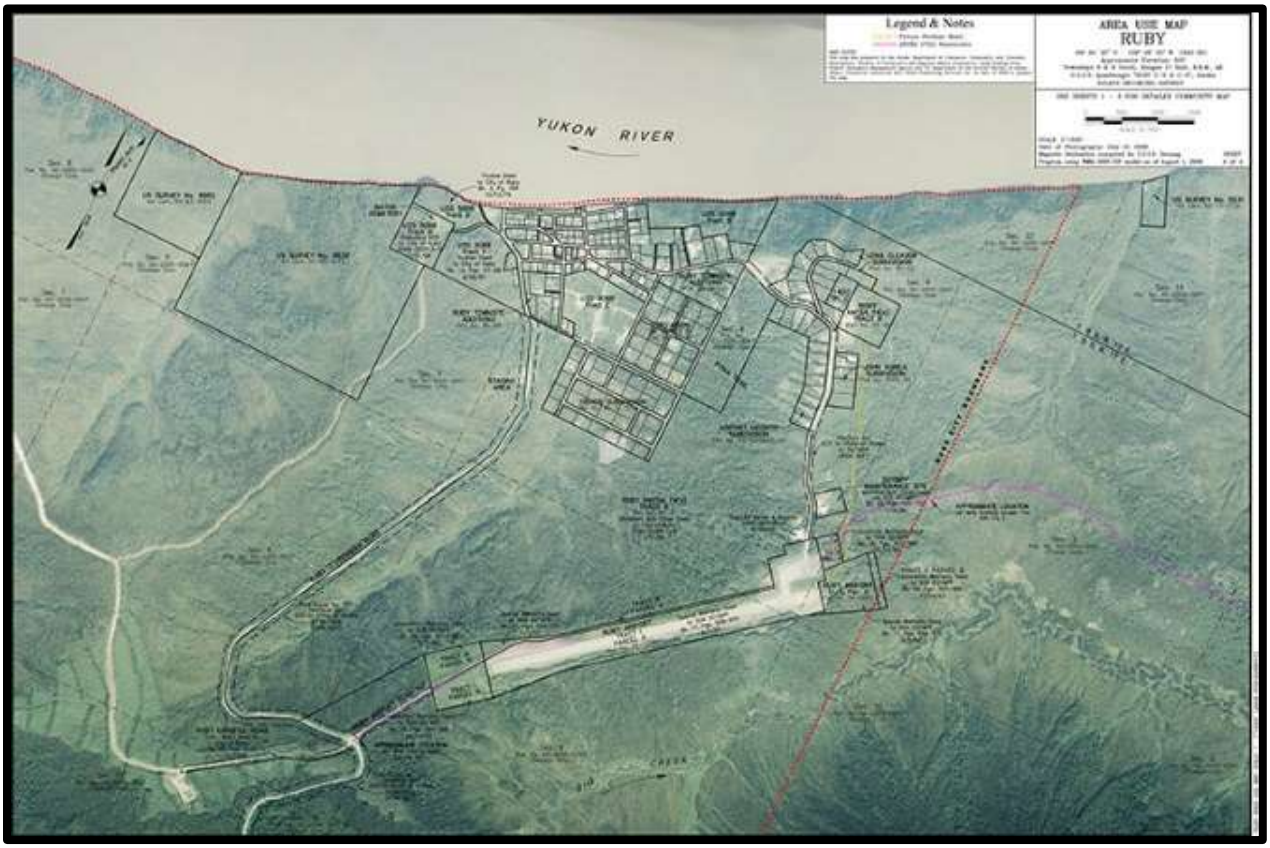
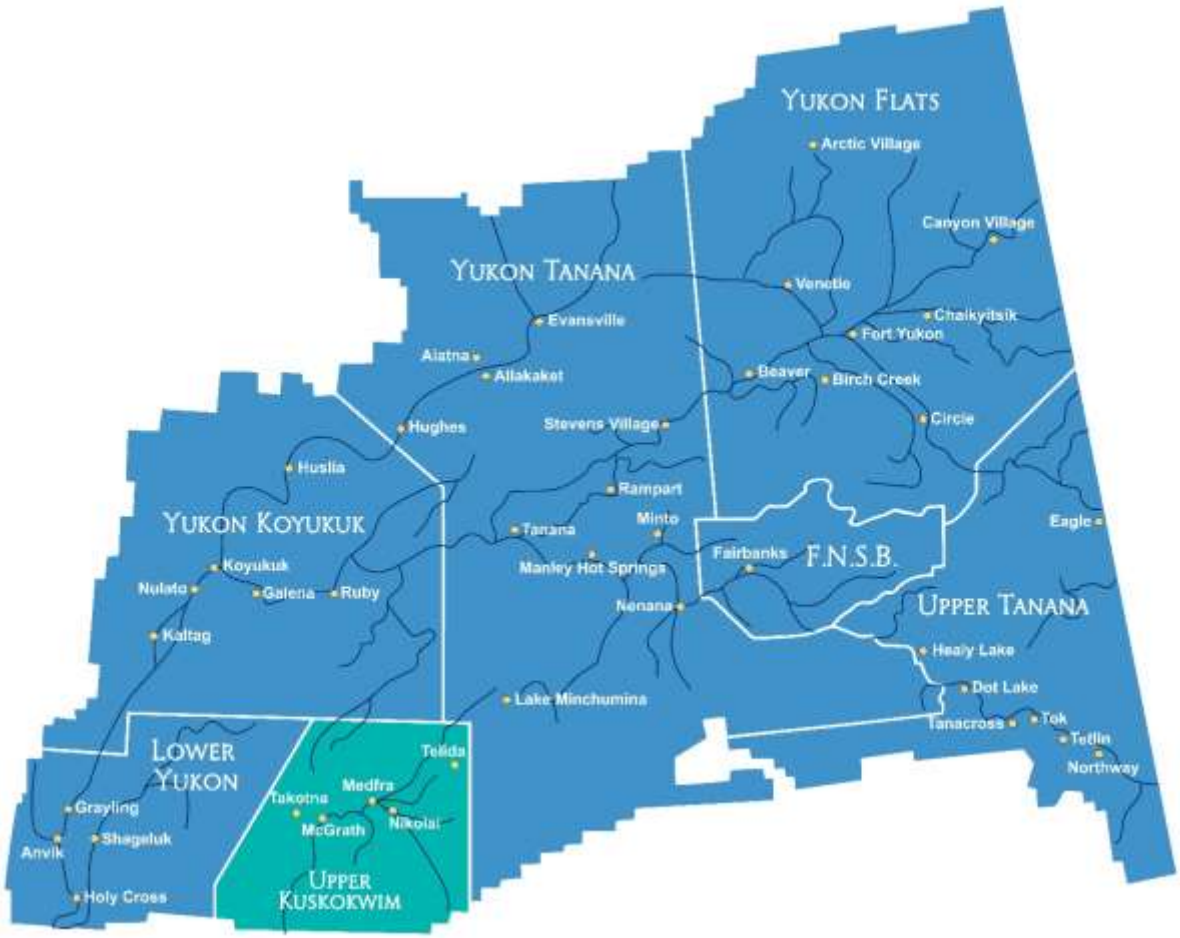
Ruby

Alaska Native Village Name: Tl'aa'ologhe
Translation: "The Place near the Bluff"
Language: Central Koyukon Athabascan
Population: 166 (2010 Census)
Location: Along the south bank of the Yukon River, about 50 air miles east of Galena, 230 air miles west of Fairbanks
Land Owned by Tribe: 3 acres
Climate: The area experiences a cold, continental climate with extreme temperature differences. The average daily high temperature during July is in the low 70s; the average daily low temperature during January ranges from 10 to below 0 °F. Sustained temperatures of -40 °F are common during winter. Extreme temperatures have been measured from -53 to 98 °F. Annual precipitation averages 17 inches, with 66 inches of snowfall. The river is ice-free from mid-May through mid-October.
Culture: Alaska Native
Airlines: Wright Air Service, Ravn Alaska
Cost of freight: $0.79/lb.
Frequency of flights: Daily flights
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 130.3



Upper Kuskokwim Subregion

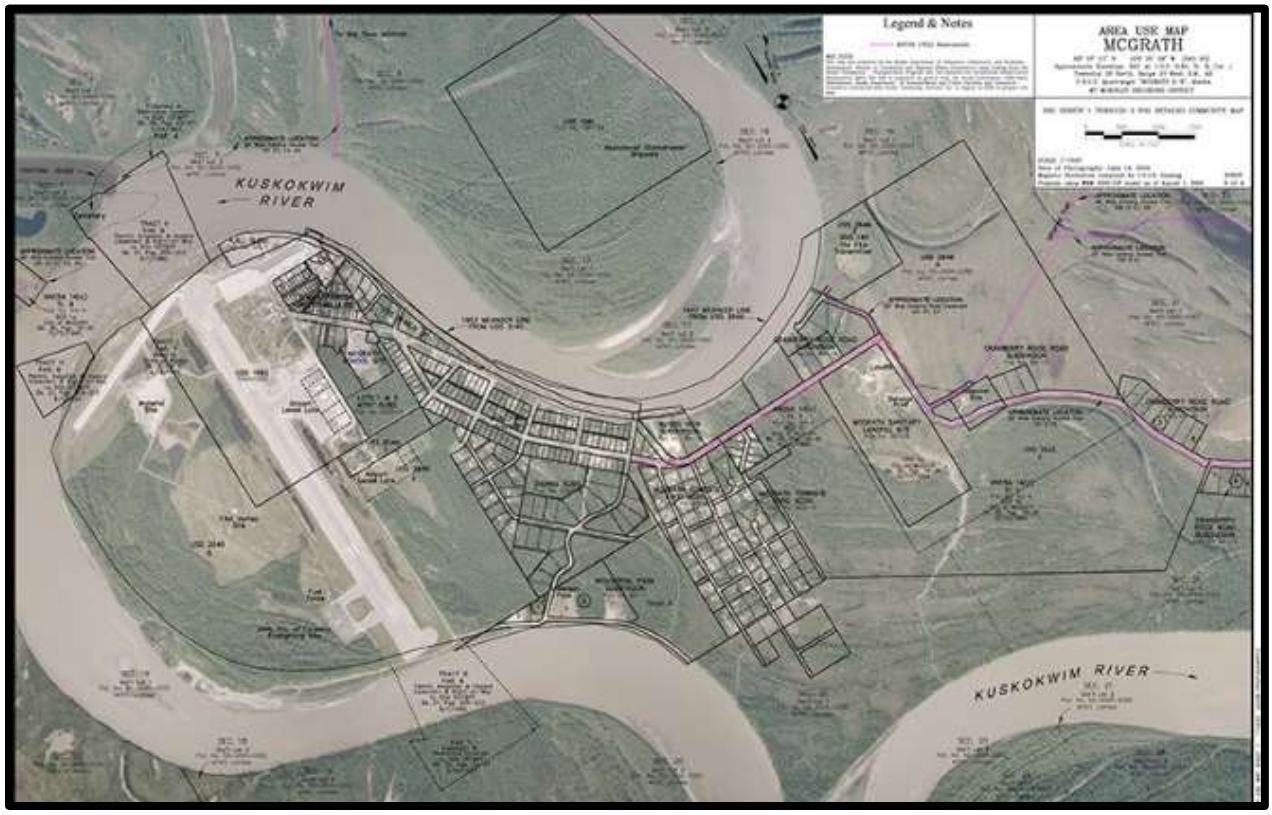
The Kuskokwim Subregion consists of five villages in the southwest part of Interior Alaska.
The native language of the subregion is Dinak'i;
Villages are primarily located along the Kuskokwim and Takotna Rivers;
Transportation access throughout the subregion is reliant on rivers, airlines and plane charters;
The hub for this subregion is located in Anchorage;
No villages are accessible by ice road;
No villages are accessible by road, year round;
Two villages are serviced by barge[36].



[36] McGrath and Takotna

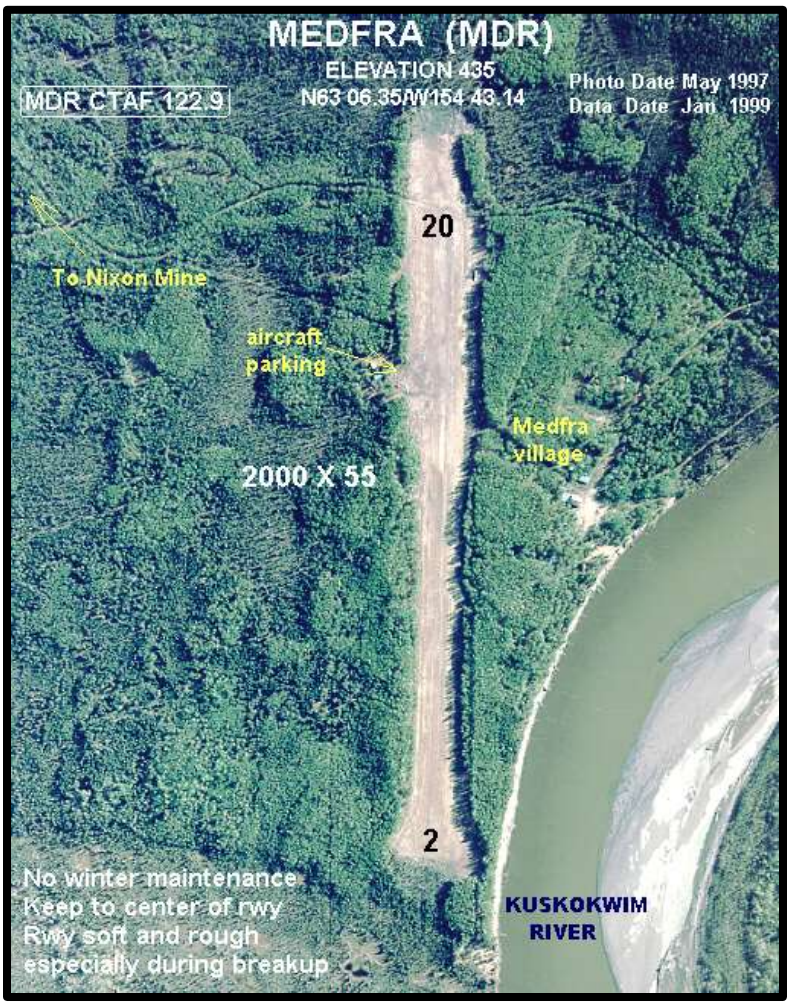
McGrath

Alaska Native Village Name: Tochak'
Translation: "Mouth of the Takotna River"
Language: Dinak'i (Upper Kuskokwim Athabascan)
Population: 346 (2010 Census)
Location: McGrath is located 221 miles northwest of Anchorage and 269 miles southwest of Fairbanks in Interior Alaska. It is adjacent to the Kuskokwim River, directly south of its confluence with the Takotna River.
Land Owned by Tribe: 6 acres
Climate: The McGrath area has a cold, continental climate. Average summer temperatures range from 62 to 80 °F, and winters temperatures can range from -64 to 0 °F. Annual precipitation is light, averaging 10 inches per year, with an average snowfall of 86 inches. The Kuskokwim River is generally ice-free from June through October.
Culture: Mixed with more than half of the population that are Athabascans and Eskimos.
Airlines: Alaska Air Transit, Ravn Alaska
Cost of freight: $1.05/lb.
Frequency of flights: Tuesday and Thursday, Monday-Wednesday-Friday
Barge Service: Alaska Logistics LLC
Miles of Road: 52



Medfra

Language: Dinak'i (Upper Kuskokwim Athabascan)
Population: 0 (Not included in 2010 Census)
Location: Medfra is located on the north bank of the Kuskokwim River, about 50 km (31 miles) by air northwest of Nikolai.
Land Owned by Tribe: 0 acres
Climate: Cold, continental climate with relatively warm summers. Average summer temperature range from 42 to 80 °F, and winter temperatures range from -62 to 0 °F. Annual precipitation is light, averaging 16 inches per year, with 56 inches of snow. The river is generally ice-free from June through October.
Culture: Athabascan
Airlines: Alaska Air Transit
Cost of freight: $1.05/lb.
Frequency of flights: No regularly scheduled flights, by request
Miles of Road: NA

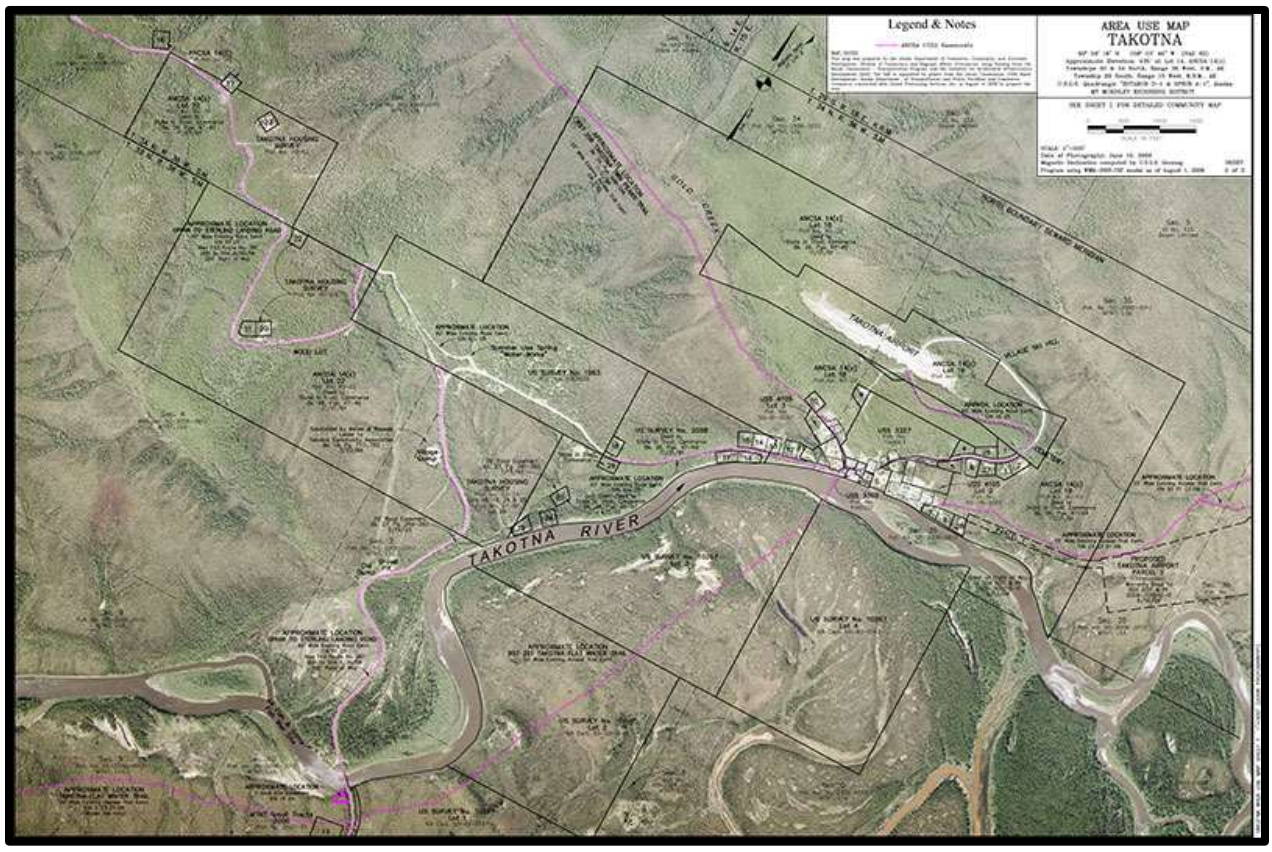


Nikolai

Alaska Native Village Name: Edzeno'
Translation: Nikolai is Russian for "Nicholas"
Language: Dinak'i (Upper Kuskokwim Athabascan)
Population: 94 (2010 Census)
Location: Nikolai is located in Interior Alaska on the south fork of the Kuskokwim River, 46 air miles east of McGrath.
Land Owned by Tribe: 3 acres
Climate: Nikolai has a cold, continental climate with relatively warm summers. Average summer temperature range from 42 to 80 °F, and winter temperatures range from -62 to 0 °F. Annual precipitation is light, averaging 16 inches per year, with 56 inches of snow. The river is generally ice-free from June through October.
Culture: Mainly Athabascan
Airlines: Alaska Air Transit
Cost of freight: $1.05/lb.
Frequency of flights: Tuesday and Thursday
Miles of Road: 31.1

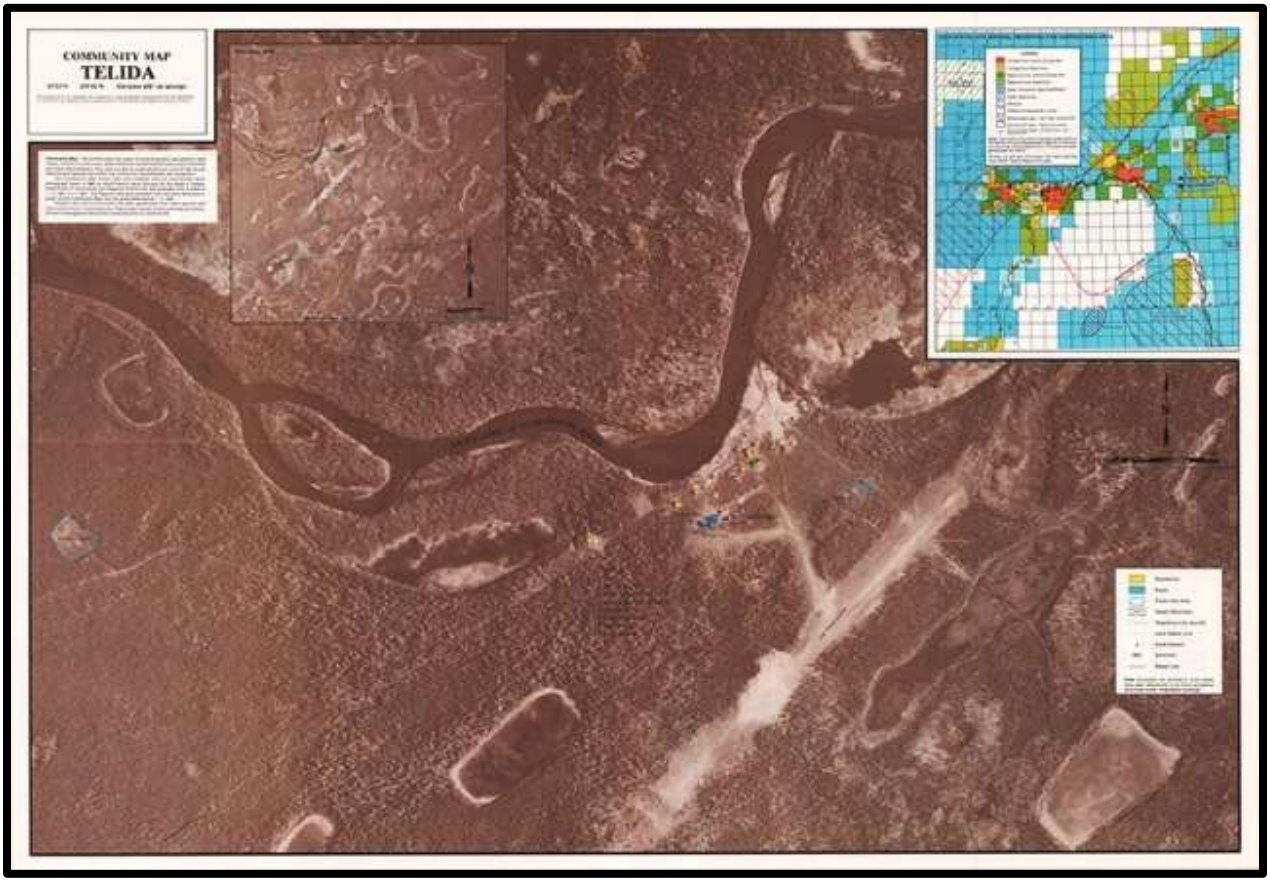
Takotna

Alaska Native Village Name: Tochotno'
Translation: "Stream"
Language: Dinak'i (Upper Kuskokwim Athabascan)
Population: 52 (2010 Census)
Location: Takotna is located in Interior Alaska on the north bank of the Takotna River in a broad scenic river valley, 17 air miles west of McGrath in the Kilbuck-Kuskokwim Mountains.
Land Owned by Tribe: 1 acre
Climate: Takotna has a cold, continental climate. Summer temperatures average 42 to 80 °F, and winter temperatures range from -42 to 0 °F. The Takotna River is generally ice-free from June through October.
Culture: Mixed population of non-Natives, Ingalik Athabascans, and Eskimos.
Airlines: Alaska Air Transit
Cost of freight: $1.05/lb.
Frequency of flights: Tuesday and Thursday
Barge Service: Alaska Logistics LLC
Miles of Road: 238.5



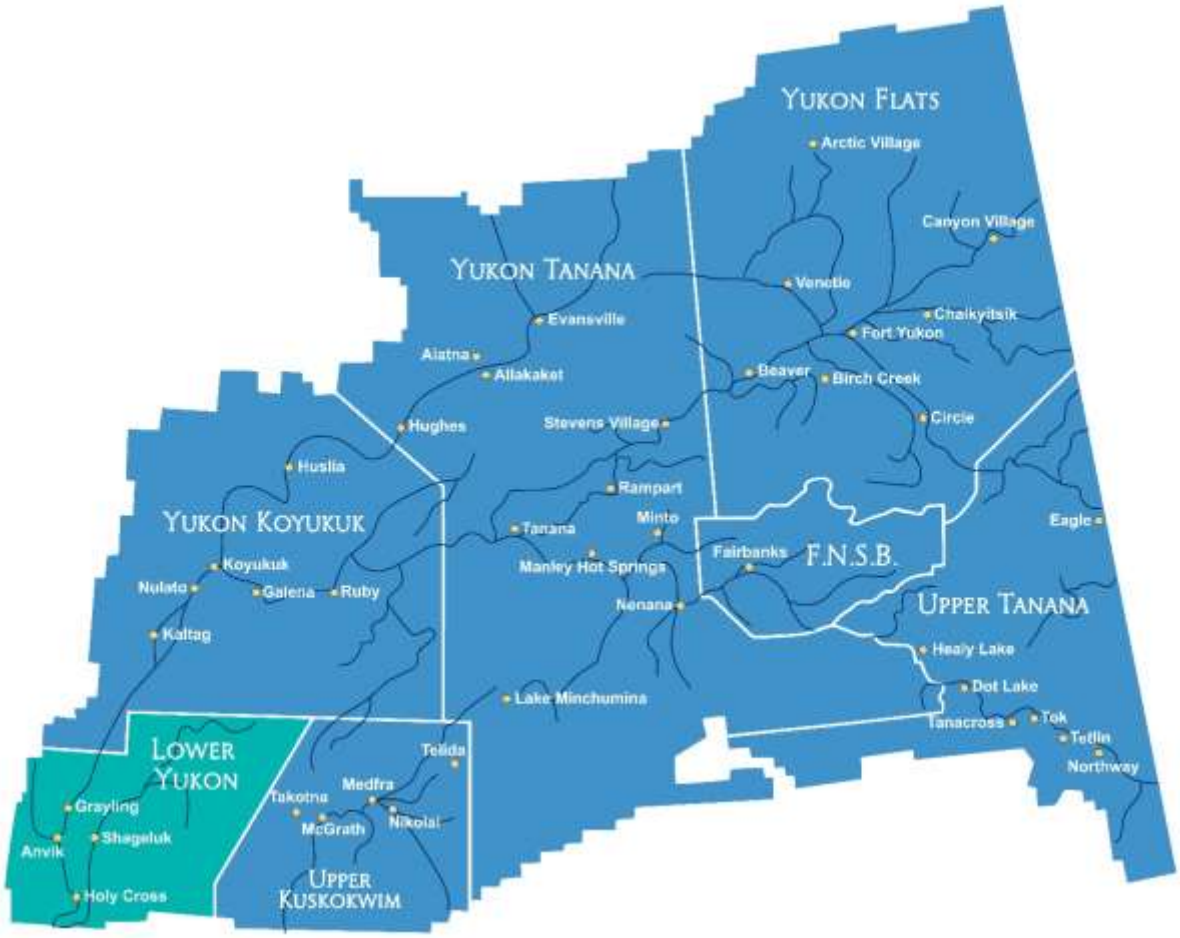
Telida

Alaska Native Village Name: Tilayadi
Translation: "Lake Whitefish"
Language: Dinak'i (Upper Kuskokwim Athabascan)
Population: 3 (2010 Census)
Location: Telida is located on the south side of the Swift Fork (McKinley Fork) of the Kuskokwim River, about 50 miles northeast of Medfra.
Land Owned by Tribe: 37.75 acres
Climate: The area experiences a cold, continental climate. Summer temperatures average 42 to 80 °F, and winters can range from -60 to 0 °F. The Kuskokwim is generally ice-free from June through October.
Culture: Upper Kuskokwim Athabascan
Airlines: Alaska Air Transit
Cost of freight: $1.05/lb.
Frequency of flights: No regularly scheduled flights, by request
Miles of Road: 59.3



Lower Yukon Subregion

The Lower Yukon Subregion consists of four villages in the southwest part of Interior Alaska.
The native language of the subregion are Deg Xinag and Holikachuk;
Villages are primarily located along the Anvik, Innoko and Yukon Rivers;
Transportation access throughout the subregion is reliant on rivers and airlines;
The hub for this subregion is located in Bethel;
No villages are accessible by ice road;
No villages are accessible by road, year round;
All villages are serviced by barge[37].



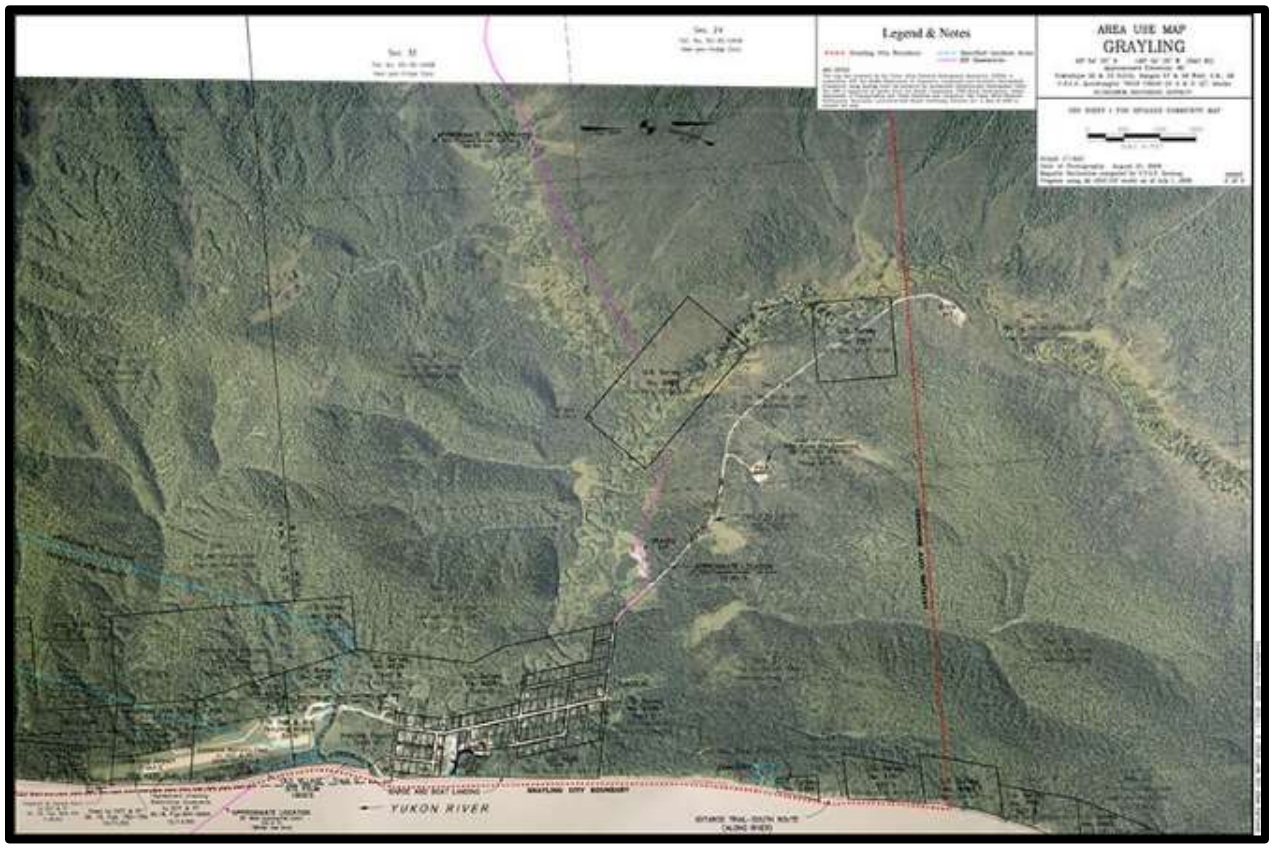
[37] Anvik, Grayling, Holy Cross and Shageluk

Anvik

Alaska Native Village Name: Gitr'ingith Chagg
Translation: "Long Skinny River"
Language: Den Xinag Athabascan
Population: 85 (2010 Census)
Location: 34 miles north of Holy Cross, 21 miles south of Grayling, 160 miles northeast of Bethel, 365 air miles northwest of Anchorage
Land Owned by Tribe: 0 acres
Climate: The climate of Anvik is continental. Temperatures range from -60 to 87 °F. Total precipitation averages 21 inches per year, and snowfall averages 110 inches per year. The Yukon River is ice-free from June through October.
Culture: Den Xinag Athabascan
Airlines: Ravn Alaska, Ryan Air
Cost of freight: $0.90/lb.
Frequency of flights: Daily flights. Monday-Saturday
Barge Service: Yutana Barge Lines, Ruby Marine and Yukon River & Road Transport
Miles of Road: 14.6

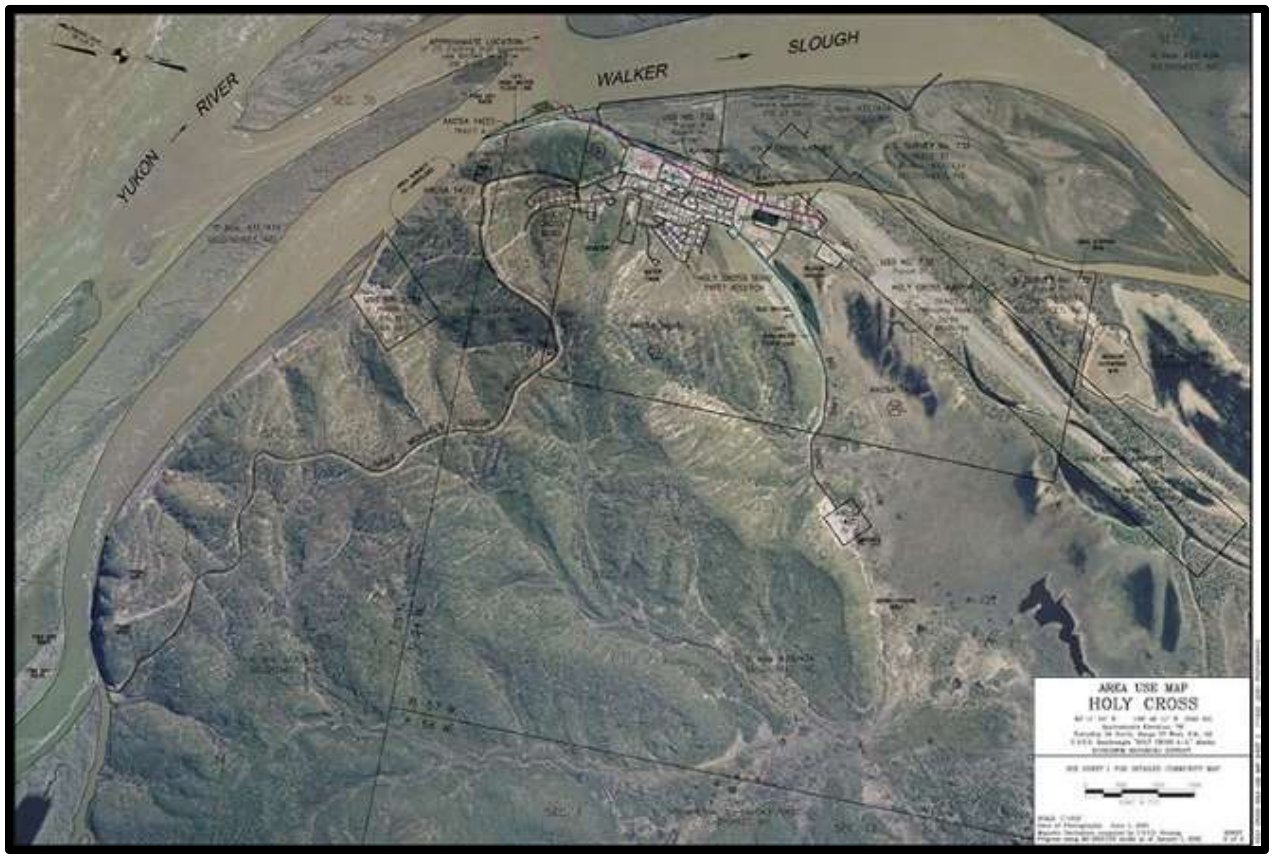
Grayling

Alaska Native Village Name: Sixno' Xidakagg
Translation: NA
Language: Deg Xinag Athabascan
Population: 194 (2010 Census)
Location: West bank of the Yukon River, east of the Nulato hills
Land Owned by Tribe: 30 acres
Climate: The climate of Grayling is continental, with long, cold winters and relatively warm summers. Temperature extremes range between -60 to 87 °F. Annual snowfall averages 110 inches, with 21 inches of total precipitation. The Yukon River is ice-free from June through October.
Culture: Holikachuk, Ingalik Athabascan
Airlines: Ravn Alaska, Ryan Air
Cost of freight: $1.04/lb.
Frequency of flights: Daily flights Daily flights. Monday-Saturday
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 10.5



Holy Cross

Alaska Native Village Name: Anilukhtapak
Translation: Named "Holy Cross" after a Catholic mission
Language: Deg Xinag Athabascan
Population: 178 (2010 Census)
Location: West bank of the Yukon River, 40 miles northwest of Aniak, 420 miles southwest of Fairbanks
Land Owned by Tribe: 1.76 acres
Climate: The climate of Holy Cross is continental. Temperature extremes range from -62 and 93 °F. Annual snowfall averages 79 inches, with 19 inches of total precipitation per year. The Yukon River is ice-free from June through October.
Culture: Ingalik Athabascan
Airlines: Ravn Alaska, Ryan Air
Cost of freight: $0.72/lb.
Frequency of flights: Daily flights. Monday-Saturday
Barge Service: Ruby Marine and Yukon River & Road Transport
Miles of Road: 88



Shageluk

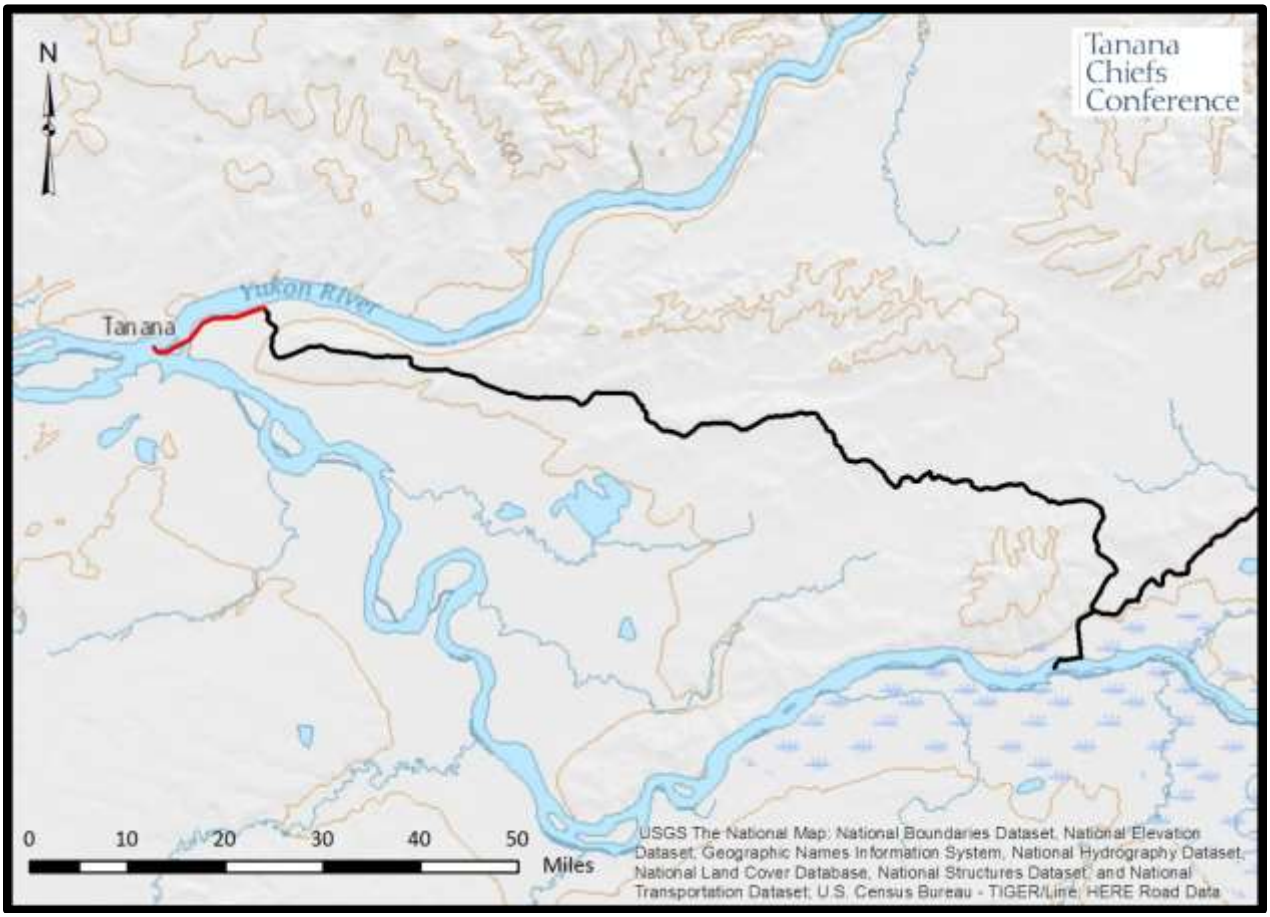
Alaska Native Village Name: Leggajitno
Translation: "Rotting Fish Slough"
Language: Deg Xinag Athabascan
Population: 83 (2010 Census)
Location: Along the Innoko River, 350 air miles northwest of Anchorage, 400 air miles southwest of Fairbanks
Land Owned by Tribe: 1 acre
Climate: Shageluk has a cold, continental climate. Summer temperatures average from 42 to 80 °F, and winters can range from -62 to 0 °F. Annual precipitation averages 67 inches, with average snowfall of 110 inches. The Innoko River is generally ice-free from June through October.
Culture: Deg Xinag Athabascan
Airlines: Ravn Alaska, Ryan Air
Cost of freight: $0.90/lb.
Frequency of flights: Daily flights. Monday-Saturday
Barge Service: Ruby Marine
Miles of Road: 12

Maps of New State Owned Roads

Road to Tanana

The map below depicts the Tanana Road from Manley Hot Springs which was completed in 2016. The red line indicates the 13 Miles of Tozitna owned land and the 6 miles of ice road which is only assessable after the river freezes up; usually in December or January. During the summer months, a boat is used to travel downriver to Tanana from the landing.

The main road is owned by the State of Alaska and the 6 miles of ice road is owned by the City of Tanana and the Tribe.

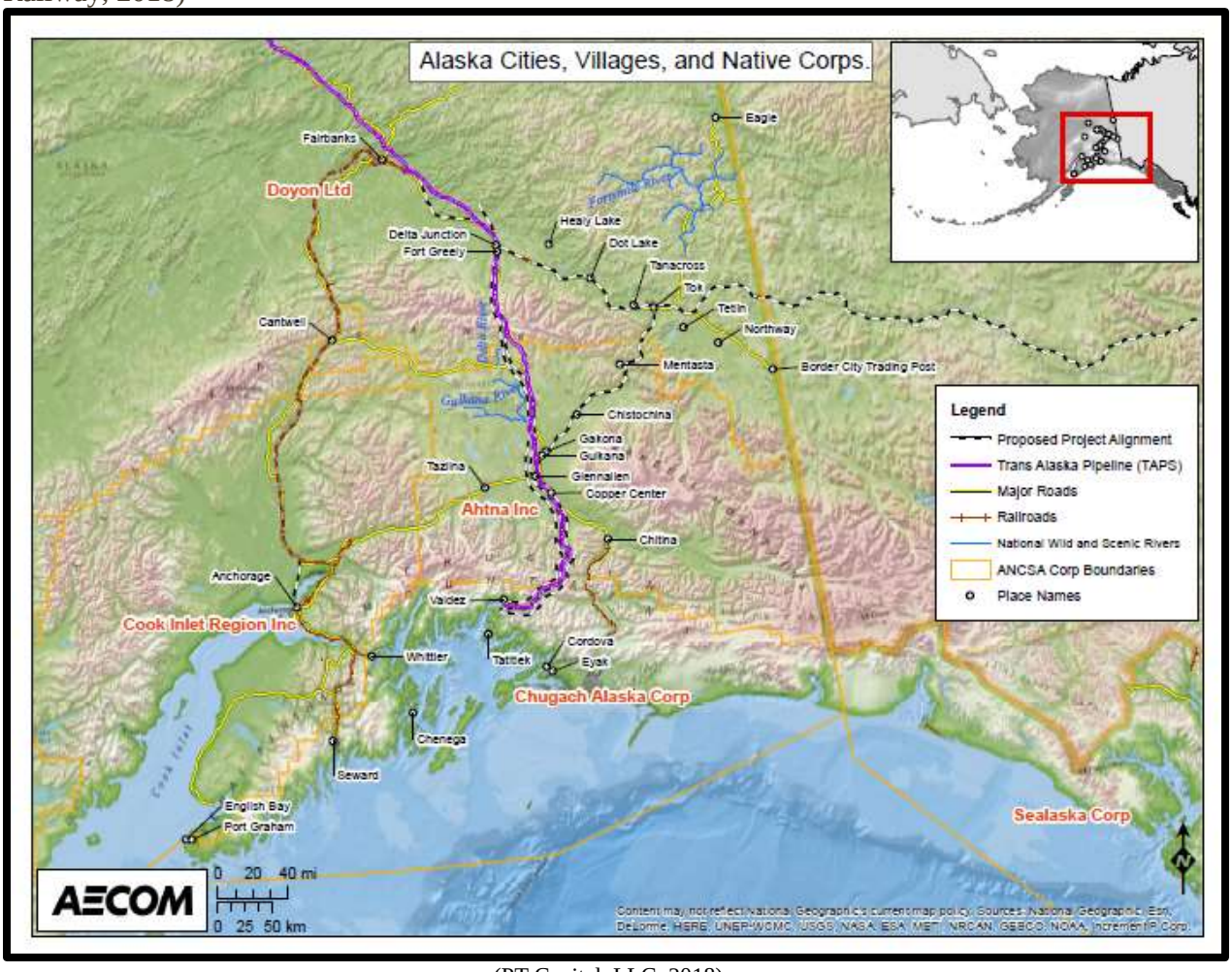


Map courtesy of Tanana Chiefs Conference Forestry Department

Map of Proposed Roads

Alberta to Alaska (A2A) Access Road to the State Highway System

The Alberta to Alaska railway is designed to potentially be a central economic route for the Northwest region within North America. The addition of this modern railway from Alberta to Alaska will expand important transportation connections between Canada and the United States. (A2A - Alberta to Alaska Railway, 2018)



(PT Capital, LLC, 2018)

Road to Nome (Ambler Road)

In 2016 AK Industrial Development and Export Authority (AIDEA) submitted an application for the Ambler Access Project connecting the Dalton Highway to the Ambler Mining District. Governmental agencies who are required by environmental impact regulations such as, State of AK Transportation, National Park Service, and Bureau of Land Management have been having consultation with Tribes.

(Proposed Roads to Resources, 2018)

In 2014, the Tanana Chiefs Conference full Board of Directors passed resolution 14-54. The resolutions (shown below) opposes the Ambler Road project and directed Tanana Chiefs Conference employees to monitor the State of Alaska's development proposals and activities.

TANANA CHIEFS CONFERENCE
Full Board of Directors
Resolution No. 2014-54

OPPOSING AMBLER ROAD

WHEREAS, Allakaket, Hughes, Huslia and Evansville have all taken a position to oppose the Ambler Road; and

WHEREAS, TCC should continue to monitor the State's development proposals and activities and ensure rural villages benefit from any feasibility studies done regarding the road.

NOW THEREFORE BE IT RESOLVED that the Tanana Chiefs Conference Full Board of Directors opposes current plans to build the Ambler Road until further information is developed and tribes be given formal and regular consultation with the appropriate agencies at the discretion of the aforementioned villages.

CERTIFICATION

I hereby certify that this resolution was duly passed by the Tanana Chiefs Conference Full Board of Directors on March 12, 2014 at Fairbanks, Alaska and a quorum was duly established.

Patrick M. McCarty

Pat McCarty
Secretary/Treasurer

Submitted by: Allakaket Delegate

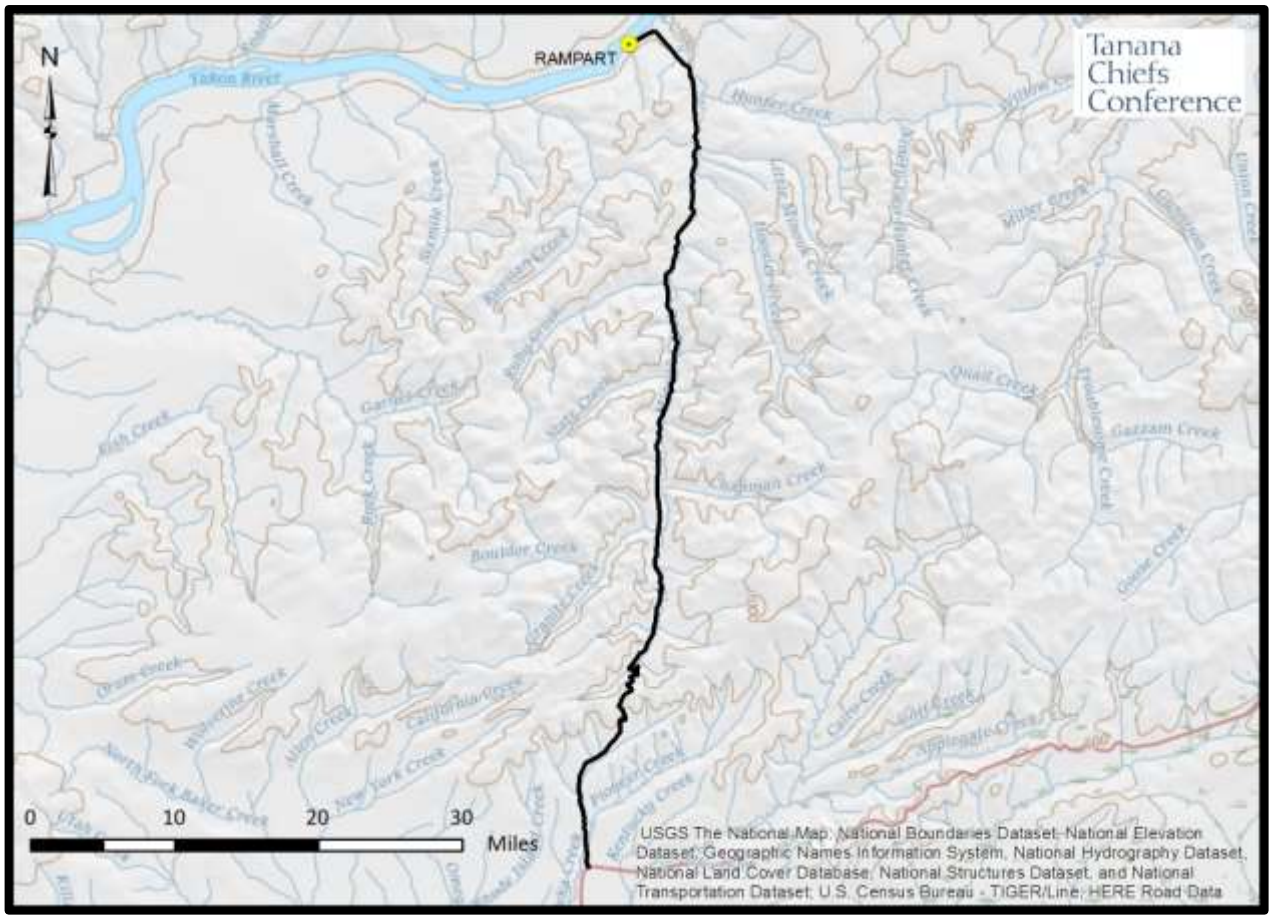
Tanana Chiefs Conference

Road to Rampart

The State of Alaska began the 30 mile stretch from Eureka to Rampart Village. The funding was depleted after only finishing 17 miles; the road ended at Granite Creek crossing.

The road is only currently operable during the winter months as an ice road, due to the rough terrain from Spring-Fall. The Native Village of Rampart has been maintaining the road during the winter months as a secure route to the Alaska Highway system in case of emergencies.

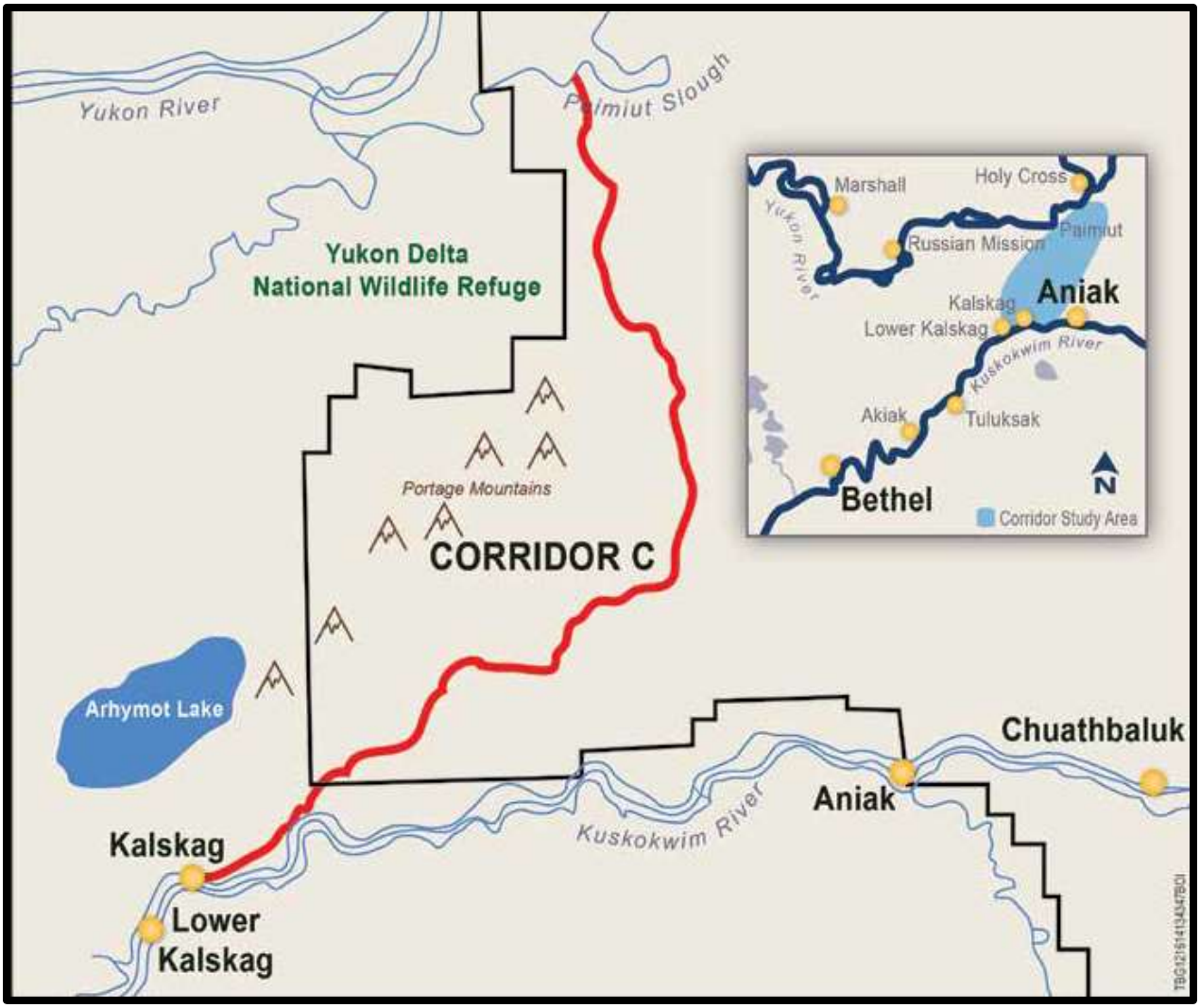
The Tribe is actively seeking funding for the remaining 13.9 miles from Granite Creek to the Yukon River.



Map courtesy of Tanana Chiefs Conference Forestry Department

Yukon Kuskokwim Corridor Plan

The Association of Village Council Presidents (AVCP) has been planning and designing a freight and fuel transportation plan. This plan would link the Yukon and Kuskokwim River communities to an Interior/Railbelt transport system. The goal of this system is to enhance intra-Alaska commerce. The plan is subsequently designed to position Western Alaska for the upcoming Alaska Natural Gas Economy.



Map courtesy of National Geographic Society, 2013

SAFETY SHELTERS

A safety priority for the region is an immense need for shelter cabins along the highly frequented routes. These routes mainly consist of trails, ice roads and river travel between villages and hunting/fishing/wood gathering grounds. Community members from around the region travel from village to village to attend cultural and traditional gatherings, sports events, etc. There are times when snow-machine and boat travel becomes suddenly treacherous and the traveler needs to take shelter, especially in the winter months. Snow-machine break downs occur when least expected and it can be a case of life or death if the traveler cannot locate shelter and warmth for the night.

Shelter cabins are a substantial necessity in Rural Alaska, where the winter months reign for most of the year. Safety shelters allow travelers to have a safe shelter to escape hazardous conditions during the unpredictable weather; which include snow storms, white-out conditions, extreme cold, storms making the river unsafe to travel on, etc. As weather trends have become warmer in the winter, village residents now face the fear of open water as well. When traveling on highways between cities, there are places to stop and rest for travelers, likewise it is understood that, it is essential that there be shelters in case of emergency when traveling between rural communities. To be safe there should be a shelter cabin between villages and in villages that are over 100 miles apart and high frequented travel areas should have more than one. It is very dangerous to travel anywhere outside the perimeter of rural villages. There are very few markers, if any at all, out on the mountains and treacherous conditions if one is to get caught in a storm or has a problem with their snowmachine or all-terrain vehicle (ATV).

There have been several incidents of injuries and deaths from hypothermia during the cold winters. These preventable tragedies are due to travelers getting lost during winter storms and having no warm shelter to seek. Many of these tragedies could have been lessened or avoided by safety shelters. The Alaska Department of Health and Human Services' Unintentional Injury Deaths for the Yukon-Koyukuk Censes Area[38] of which Arctic Village is a part, indicates that between 2008 and 2013 there were:

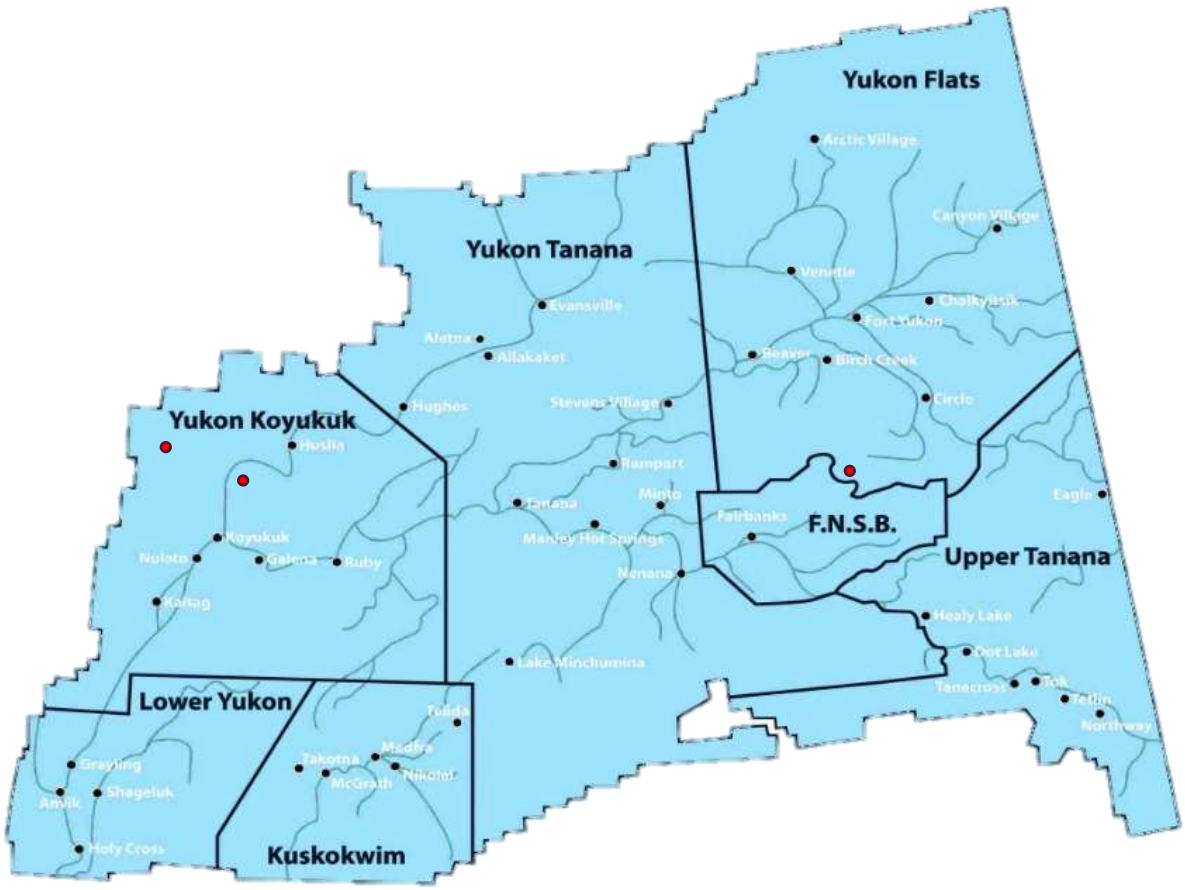
- 16 motor vehicle fatalities;
- 9 drowning fatalities; and
- 8 snow machine related fatalities.

The Doyon/TCC region has a land base of roughly 11.5 million acres. If the region had more shelter cabins along the trails, then this would greatly increase the overall safety of village residents and potentially save lives and/or limbs. A simple trail marker or tripod could mean the difference between life and death in the harsh, unforgiving environment in rural Alaska. Extreme temperatures can dip as low as -70 degrees below zero. Commonly extended winter temperatures are -50 to -60F degrees F. (Tanana Chiefs Conference, 2019). The following pages have a list of current and proposed Safety Shelters in the TCC Region.

[38] State of Alaska Department of Health and Human Services, Alaska Bureau of Vital Statistics, *Unintentional Injury Deaths for Yukon-Koyukuk,* updated January 21, 2015. Accessed October 11, 2016.

Existing Travel Shelters

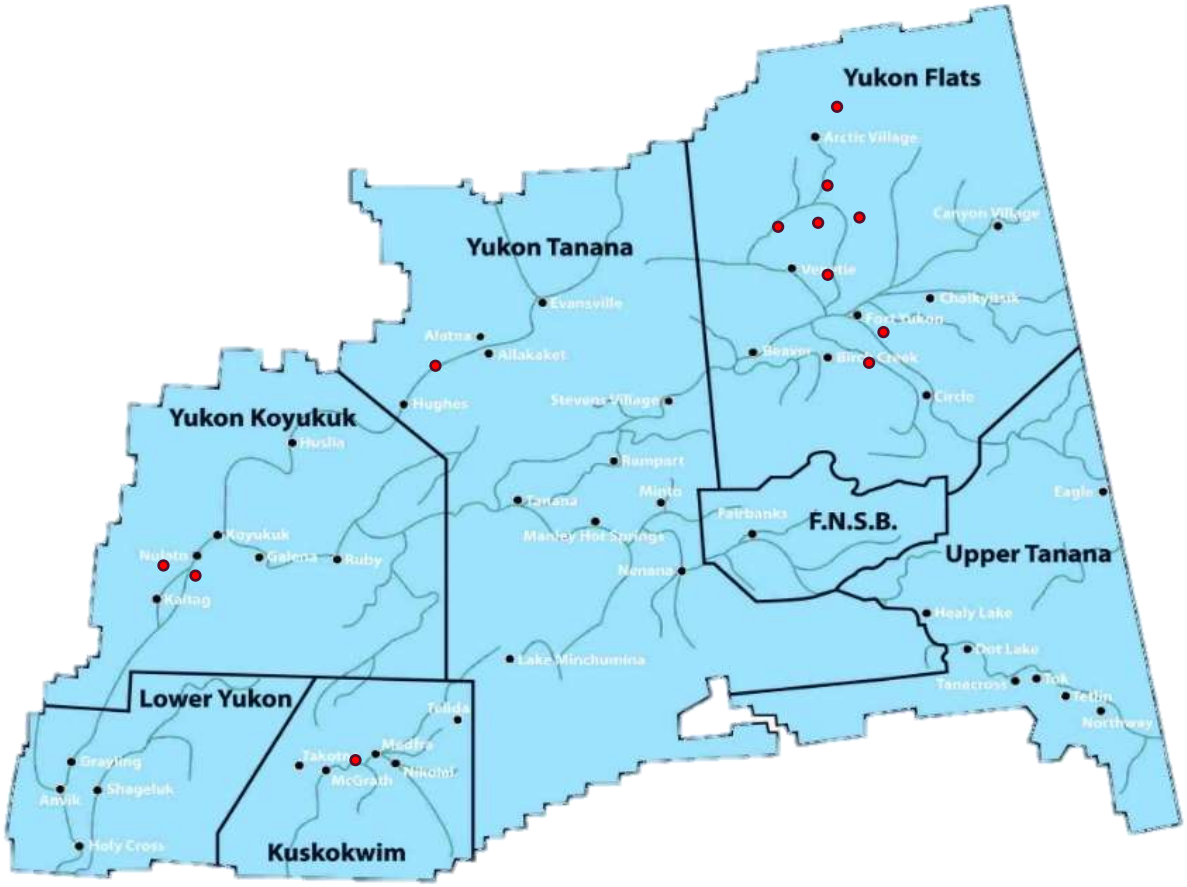
Red marks on map show approximate location of existing shelters.



Subregion	Name of Shelter/Camp	Villages	Miles from each village	Location	Ownership
Yukon Flats	Eagle Summit Emergency Shelter	Circle	47 miles S of Circle MP117	Steese Highway at Eagle Summit	State of Alaska
Yukon Tanana	½ Way Cabin	Allakaket & Hughes	35 river miles S of Alatna	East bank, approx. 35 miles below Alatna/Allakaket	Unknown
Yukon Koyukuk	Un-named	Huslia	E of Huslia	Between Huslia and Selawik Hot Springs	Tribe
Yukon Koyukuk	Chip Cabin	Huslia & Koyukuk	15 mile Fish & Game checkpoint	Between Huslia and Koyukuk	Unknown

Proposed Travel Shelters

Red marks on map show location of proposed shelters.



Subregion	Name of Shelter/Camp	Villages	Miles from, each village	Location	Ownership
Yukon Flats	Martin Creek	Venetie	32 miles SE	On Fort Yukon Trail	Tribe
Yukon Flats	Brush Mtn.	Venetie	20 miles NW	On Maggie's trail	Tribe
Yukon Flats	Bob Lake	Venetie	40 miles NE	Arctic Village trail	Tribe
Yukon Flats	Sharp Rock	Venetie	23 miles N Chandalar River	Wood Yard trail	Tribe
Yukon Flats	Old John Lake	Arctic Village	14 miles NE	Dancha'lee trail	Tribe
Yukon Flats	Brown Grass	Arctic Village	30 miles W	Venetie trail	Tribe
Yukon Flats	Un-named	Arctic Village	26 mile S	Christian Village trail	Tribe

Subregion	Name of Shelter/Camp	Villages	Miles from, each village	Location	Ownership
Yukon Flats	Un-named	Circle	40 miles NW	Fort Yukon trail	Doyon/Danzhit Hanlaii Corp.
Yukon Flats	Un-named	Circle	40 miles W	Birch Creek trail	Doyon/Danzhit Hanlaii Corp.
Yukon Koyukuk	9 mile	Nulato	9 miles downriver	North (hill) side	Tribe, Village Corporation
Yukon Koyukuk	Kidtuuts Keeyeet (Elbow A**)	Nulato	Approx. 10 miles S	In Kaiyuh Flats. On North side of creek.	Tribe, Village Corporation
Upper Kuskokwim	Un-named	McGrath	24 miles E	On Iditarod Trail	MTNT Ltd.

Heavy Equipment Fleet in Ruby, April 29, 2019.

MAINTENANCE

Tribal Community roads have been recognized as the most dangerous and rudimentary of any transportation system in the United States so maintaining and improving our region's transportation infrastructure is vital to community economic health and safety for all residents in the region.

Maintenance Overview

Maintenance is considered any action required to preserve and maintain a current transportation facility (road or trail) within its right-of-way, so that the facility may be used to safely and effectively for its designated purpose. There are four main categories of maintenance. They are:

- Preventative Maintenance – includes regularly scheduled inspections, and minor repairs.
- Scheduled Maintenance – is planned, and results from preventive maintenance inspections.
- Unscheduled Maintenance – is immediate action needed to correct unexpected occurrences with impact safety and efficiency of operations.
- Normal Maintenance – is the planned, recurring day-to-day care of the facility.

Maintenance is intended to bring a current transportation facility as close as possible to its original condition, when it was first constructed or improved. A transportation facility means roads, streets, bridges, parking areas, transit vehicles, and other related transportation infrastructure. (U.S. Department of Transportation, Federal Highway Administration, 2019) To most effectively utilize maintenance funds Tribes should identify maintenance needs, then prioritize those needs to fit available funding.

Transportation facilities and assets include any roads or trails, also known as travel ways, with approaches, parking facilities, drainage structures, roadside slopes, sidewalks, pathways, rest areas and visitor centers, traffic control devices, transit vehicles and road maintenance equipment.

Tok Cutoff, October 30, 2015

One of the highest priorities must be public safety and the safety of maintenance employees, when carrying out maintenance, whether it is routine scheduled maintenance or unscheduled emergency response maintenance. Planning, budgeting and carrying out safety measures in the maintenance work zone for the safety of the public and employees is essential. (Federal Highway Administration, 2018)

Types of Tribal Maintenance Funding

There are two types of maintenance funding available for Tribes.

Tribal Transportation Program (TTP) Funding.

This is funding from a Tribe's annual TTP funds (which are received as Tribal Shares) that the Tribe uses for transportation facility maintenance. TTP funds can be used for maintenance only on facilities identified in the National Tribal Transportation Facility Inventory (NTTFI).

BIA Transportation Facility Maintenance Program

This is funding in addition to the Tribe's TTP funds. This is separate funding that is provided by Congress for the BIA Transportation Facility Maintenance Program in the annual Department of the Interior appropriations acts. Tribes may use these funds for maintaining BIA Road Systems and BIA transportation facilities. There is only one BIA maintained road in the State of Alaska.

Downhill road leading to riverbank in Ruby, August 29, 2018

SERVICES PROVIDED BY TANANA CHIEFS CONFERENCE

- Assist in a region wide dust control effort.
- Assist Tribes in updating their Long Range Transportation Plans, as needed.
- Assist Tribes to develop Safety Plans, as needed.
- Assist Tribes to develop a Tribal Transit Plan, as needed.
- Work with tribes to update inventory, as requested.
- Transportation management training.
- Specialized training opportunities such as; heavy equipment maintenance training, heavy equipment operator training, driver's licenses and CDL's.

Koyukuk - road leading up to the main boat launch, March 2018

INITIATIVES

Needs by Subregion

TCC gathered information from tribes at the TCC planning summit held in 2016, the 2018 Transportation Summit, surveys completed by the tribes in 2017, 2018 spring/fall subregional meetings where delegates from each tribe were provided a copy to review and provide feedback, and information was gathered from 12 Tribes' Long Range Transportation Plans.

Yukon Tanana

The top concerns for the Yukon Tanana's eleven rural communities, in order of frequency, were:

1. ***Construction*** – either new or updating existing roads and/or ice roads. This includes drainage from the roadways, erosion control, placing or replacing culverts, and replacing bad foundation
2. ***Maintenance*** – consistent general maintenance of roadways (graded, crowned, etc.), snowplowing, erosion control and resurfacing roads and trails
3. ***Safety*** – brush clearing, street lights and signs

Yukon Flats

The top concerns for the Yukon Flat's eight rural communities, in order of frequency, were:

1. ***Construction*** – fixing trails, drainage for roads/culverts, new gravel surfacing and rebuilding of current roads
2. ***Maintenance –*** such as dust control, erosion, general maintenance and funding
3. ***Safety*** – Street and stop lights, safety signs (i.e. kids at play, etc.), safety shelters and updated Community Safety Plans

Yukon Koyukuk

The top concerns for the Yukon Koyukuk's six rural communities, in order of frequency, were:

1. ***Maintenance*** – road resurfacing (too many potholes; lack of or poor drainage), general maintenance and acquiring equipment such as rock crushers, dump trucks, graders, etc.
2. ***Dust Control***
3. ***Construction*** – New and upgraded roads

Alatna's equipment shed. June 6, 2018

Lower Yukon

The top concerns for the Lower Yukon's four rural communities, in order of frequency, were:

1. ***Construction*** – new and updated roads/trails (i.e. fixing road foundations, replacing culverts, fixing sinks in the ground)
2. ***Maintenance*** – road resurfacing (too many potholes; lack of or poor drainage)
3. ***Dust Control***

Upper Kuskokwim

The top concerns for the Upper Kuskokwim's five rural communities, in order of frequency, were:

1. ***Maintenance*** – road resurfacing (too many potholes; lack of or poor drainage), general maintenance and maintaining winter access trails
2. ***Safety*** – Low visibility, brush clearing and safety shelters
3. ***Dust Control***

Upper Tanana

The top concerns for the Upper Tanana's seven rural communities, in order of frequency, were:

1. ***Maintenance*** – road resurfacing (too many potholes), road resurfacing, leveled, maintaining winter access trails snow removal and equipment
2. ***Safety*** – brush clearing, river and lake travel and signs
3. ***Construction*** – upgrading narrow roads, replacing damaged culverts and equipment

Boating to Last Tetlin. June 21, 2018

Potential Barriers

There are many potential barriers for the Tribal Transportation Program; limited funding, lack of working equipment, high expenses to get materials to rural interior communities, experienced heavy equipment maintenance personnel, cost of trainings and short construction season. Road construction seasons are typically late spring to early fall.

Limited Funding for Rural Projects

Each federally recognized tribe in the nation has a Tribal Transportation Share. These shares vary due to a funding formula that was frozen under MAP-21. The funding was partially based on population and inventory. Information for inventories are submitted to the National Tribal Transportation Facility Inventory (NTTFI) and reviewed by the Bureau of Indian Affairs (BIA) for approval. 20 Tribe's within the TCC region get under $70,000/year, if fully funded.

Materials

The costs of getting material to rural interior communities is can be extreme. Two-thirds of the regions villages are only assessable by plane, boat (summer months) or snow machine (winter months; when rivers and lakes have iced over). Few have ice roads that make the villages accessible during a portion of the winter months; when the width of the ice is at least 15-20 inches thick. With warmer winters, the ice roads have been taking longer to open and are closing earlier in the spring time.

Doyon, Limited's Lands & Natural Resources Department provides construction aggregate materials (sand, rock, gravel) for state, federal, tribal and local projects in the Doyon-TCC region. The Lands & Natural Resources Department manages active material sites throughout the region, builds strategic partnerships for the development of sand, gravel, and rock, and works directly within communities to assist in developing capital improvement project opportunities. Requests for material sales can be directed to the Material Engineer at Doyon.

Arriving in Healy Lake via boat, June 22, 2018

Opportunities

Funding

- TTP Annual Tribal Shares (any Federally Recognized Tribe not receiving TTP funds contact TCC for assistance)
- FTA Tribal Transit Program – $25K available to create a transit plan as well as startup, operational and capital grants
- Tribal Transportation Safety Program – $12.5K available for creating a community TTP Safety Plan for each community, $7500 to update an existing Safety Plan and funds to achieve goals in current safety plans
- FHWA – AID, Accelerated Innovative Demonstration Program – Up to $1 million per project can be used for design and construction. Submissions accepted with no deadline until 2020
- 2018 BUILD Grant Program replaces TIGER with $1.5 Billion 2018-2020 – capped at $25 Million per project or $125 million per state

Training

In October 2017, Tribal Technical Assistance Program (TTAP) went from seven regional offices to a single office located in Virginia. The program has established five Virtual Centers of Excellence (VCoE), each focused on one of five critical transportation topic areas:

- Project Delivery
- Maintenance and Operations
- Safety
- Planning and Procurement
- Asset and Data Management

The Roads Scholar Certification Program (RSCP) provides tribal transportation workers with the opportunity to excel in today's transportation workplaces. They have a classroom facility and equipment yard in Oklahoma City.

The Motor Vehicle Injury Prevention program is a vital part of safe tribal transportation environment. The TTAP center's Motor Vehicle Injury Prevention program administers nationally recognized safety programs including car seat check points and Safe Native American Passengers (SNAP) training. These programs are delivered hands-on, directly in tribal communities.

Roads Inventory Field Database System (RIFDS) workshops are offered periodically through the BIA in Albuquerque, NM.

Bureau of Justice Assistance offers trainings regarding tribal transportation via the National Training and Technical Assistance Center. "Tribal Transportation 101"

University of Alaska Fairbanks – Interior Aleutian Campus offers a one week winter transportation trainings for Alaskan Tribes in Fairbanks, Alaska.

GSA Surplus Equipment

The Bureau of Indian Affairs Department of Transportation (BIADOT) has a GSAx Surplus program where Tribes that have their Transportation dollars with the BIA can apply for a GSA access card to look for and retrieve heavy equipment for their Tribe.

Bureau of Indian Affairs, Alaska Region
3601 C Street Suite 1200
Anchorage, Alaska 99503
Phone: (907) 271-4508
Fax: (907) 271-4090
Email: francine.fasthorse@bia.gov

The Federal Highway Administration (FHWA) has a similar process for FHWA Tribes. The newer GSA program would allow consortiums to assist Tribes in the acquisition of Heavy Equipment and work vehicles. In this program the equipment would be monitored by the consortium yearly.

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Federal Highway Administration
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E-mail: Kevin.Spohrer@dot.gov

Equipment in Grayling, July 6, 2018

Conclusion: Overall Goals

Regional Goals

The top four goals for the region are:

- ***Maintenance*** – Resurfacing existing roads and snow removal
- ***Construction*** – Upgrade and new roads
- ***Safety*** – Brush clearing, river/lake travel, boats, safety shelters, etc.
- ***Dust Control*** – Region-wide safety plan with emphasis on dust control

McGrath - road leading up to the main boat launch, June 26, 2018

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Heavy Equipment Maintenance training, Ruby, April 30, 2019.
L-R: Hank Captain, Fred Bifelt, Darryl Sam, Ryan Madros and Don Honea Jr.