

Community Profile

Tsiigehtchic



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Tsiigehtchic

Tsiigehtchic originated as a traditional seasonal fishing camp, located at the confluence of the Arctic Red and Mackenzie Rivers. A Roman Catholic Mission was established here in 1868 and a trading post soon followed. By 1940 only three permanent families lived in the settlement until the construction of the Dempster Highway attracted more residents.

Tsiigehtchic - which translates in the Gwich'in language as "at the mouth of the Iron River" - was formerly known as Arctic Red River. The name may refer to the iron or mineral deposit found in the soil further up the Arctic Red River.

Tsiigehtchic is still a traditional community with trapping, fishing and hunting still being key aspects of many residents livelihood. Ferry crossing maintenance and operation provides a few jobs and the local retail store/post office is run by the band.

Under the Gwich'in Comprehensive Land Claim Agreement, the Gwich'in Tribal Council was granted ownership of 16,264 square kilometres of land in parcels located throughout the GSA and Yukon.

Geography

Land area: 48.98 km²

Tsiigehtchic is located on the Mackenzie River at 67' 27' N latitude and 133' 44' W longitude. 129 km south of Inuvik by road. There is no airport but the community is accessible by all-weather road (Dempster Highway) and ferry crossing of the Arctic Red River.

Tsiigehtchic overlooks the confluence of the Mackenzie River and Arctic Red River from a high bluff. The community is located in the Northern Great Bear Plains High Subarctic Ecoregion of the Taiga Plains. The area around the community is dominated by broad lowlands and plateaus divided by major rivers. The area is underlain by level to gently sloping horizontal sedimentary rock. Polygonal peat plateaus are common in this ecoregion with widespread continuous permafrost at a depth of 30 centimeters below the surface. The characteristic forest type is widely spaced stunted white and black spruce trees.

Demographics

Population (2007): 177

- Male: 93
- Female: 84
- Aboriginal: 175
- Non-aboriginal: n/a

Median Age: 24.2

Population aged 15 and older: 68.4%

Population declined 10% from 2001-2006

Language

Mother tongue (out of 175, 2006):

- English only: 135
- Other language: 40

Aboriginals that speak an Aboriginal language (2004): 24.2%

Employment and Economy

Median income of all census families in 2005: Not available

Average individual income in 2005: \$27,020

Unemployment rate (2006): 21.4%

Living Cost Differentials (2005, Edmonton = 100): 152

Persons 15 years of age and older involved in harvesting activities (2005)

- Trapping: 13.8%
- Hunting or fishing: 44.1%

Weather

There is no weather station in Tsiigehtchic but it is assumed Inuvik has similar weather patterns. Data is from Inuvik A climate normals 1971-2000. Tsiigehtchic has a cold dry climate, with a short but warm summer and a long cold winter. The coldest recorded temperature is -56.7°C in 1968, the hottest recorded temperature is 32.8°C in 1999. The majority of the precipitation comes in the summer as rain and in the fall as snow. Prevailing winds are from the east but the Mackenzie Valley is not considered windy. More information on Inuvik weather can be found at http://www.climate.weatheroffice.ec.gc.ca/climate_normals

Educational Infrastructure

School: Maximum Grade 11

Community Learning Centre: Yes

Health Infrastructure

Hospital: No

Health Centre: Yes (1 nurse)

Transportation Infrastructure

Tsiigehtchic is located on an all weather gravel highway, the Dempster Highway connects Dawson City, Yukon with Inuvik, NWT. There is a ferry on either side of Tsiigehtchic, essentially cutting it off from major centers for a month in the spring and a month in the fall.

The Louis Cardinal ferry runs on a demand schedule at (km 143) of the NWT portion of the Dempster Highway and crosses the Arctic Red River at the community of Tsiigehtchic. It has a five-year average opening date of June 2 and average closing date of October 26. In the winter the ice crossing of the Arctic Red River has a five year average opening date of November 23 and average closing date of May 2.

The Abraham Francis Ferry crosses the Peel River at km 74 of the Dempster highway near the community of Fort McPherson. This ferry has a five year average opening on June 1 and average closing on October 25. The ice crossing at Peel River has a five year average opening date of November 7, and average closing date of May 4.

Municipal Infrastructure

Sanitation: Trucked

Waste Disposal: Solid/Sewage

Fire Hall: Yes

Community Energy Plan: In progress

Land Use Plan: Approved in 2002

Forest Resource Assessment: No

Judicial and Emergency Infrastructure

Number of police officers: 0

Emergency Services: Volunteer firefighting

Emergency Plan: Yes

Housing Infrastructure

Total private dwellings (2004): 83

- Average number of persons per household (2004) 2.7
- Number of owned dwellings: 38
- Number of rented dwellings: 9
- Number of public housing units: 21
- Housing repairs needed (out of 83, 2004):
 - Regular maintenance: 39 (47%)
 - Minor repairs: 20 (24%)
 - Major repairs: 23 (28%)

Average value of owned dwellings (2006) \$109,286

Potential Cost Impacts for Adaptation of Foundations of Buildings

(from: Potential Cost Impacts for Adaptation of Building Foundations in the Northwest Territories, EIC Climate Change Technology 2006)

NWT Geographic Construction Index (Yellowknife=1.00): 1.58

Sensitivity Parameters to Climate Change (2006)

- Thermal: 3.28
- Physical: 3.67
- Weighted: 3.47

Sensitivity Factor (1=worst/0=best): 1.00

“Best Guess” Estimated Climate Change Foundation Adaptation Costs (2006)

Residential: \$1,361,826

Institutional/Commercial: \$3,430,336

“Worst Case” Estimated Climate Change Foundation Adaptation Costs (2006)

Residential: \$1,361,826

Institutional/Commercial: \$5,145,504

Electricity Infrastructure

Type of Electricity Supply: Diesel

Supplier of Electricity: NTPC

Water

Tsiigehtchic has a water licence which is submitted to the Gwich'in Land and Water Board. The community has trucked water with a water reservoir (Tso Lake) and an engineered wastewater reservoir. The wastewater reservoir is released twice annually with flow through a natural wetland to the Mackenzie River. There are no reported issues with water or wastewater quality.

- Water Source: Tso Lake
- Volume of Water / Wastewater 6,000 m³/year
- Type of Treatment Plant: Class I membrane filtration system with storage and liquid chlorine disinfection, built in 2003.
- Bacteriological Testing: Yes
- Chemical Testing: Annually
- Last Boil Water Advisory: N/A

Food / Plants / Animals

Food Price Index (2004, Yellowknife = 100): 170

Households consuming most/all country foods (meat, fish, gathered berries and plants, 2003):
46%

Community garden / composting: Yes independent site, but community has requested assistance from Industry Tourism and Investment's Small Scale Foods Program

Species at Risk: (NWT Species at Risk in NWT 2008 – Animal Species in the Gwich'in Region)

Grizzly Bear (northwestern population)	Sensitive
Wolverine (Western population)	Sensitive
Harlequin Duck (Western population)	May be at Risk
Grey Headed Chickadee	May be at Risk
Olive-Sided Flycatcher	Sensitive
Peregrine Falcon	Sensitive
Rusty Blackbird	May be at Risk
Short Eared Owl	Sensitive

Invasive Species: Other species which have been noted in the region but are not necessarily invasive include:

Polar bears
Grizzly Bears
Blue heron
Magpies
Turkey Vulture
Woodpeckers
Coyote
Thistles

Community Concerns

Effects of climate change are being noticed: warmer weather, melting ice, dry land, later freeze-up and earlier break-up, plants/animals less healthy

Permafrost degradation affecting church and cemetery

Forest fire potential

Caribou

Weather is changing

Drainage around community

Sources:

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([http://www.enr.gov.nt.ca/ live/pages/wpPages/Species_at_Risk.aspx](http://www.enr.gov.nt.ca/live/pages/wpPages/Species_at_Risk.aspx))

Environment Canada – National Climate Data and Information Archive.
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Global Invasive Species Database. (<http://www.invasivespecies.net>)

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(<http://www.maca.gov.nt.ca>)

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