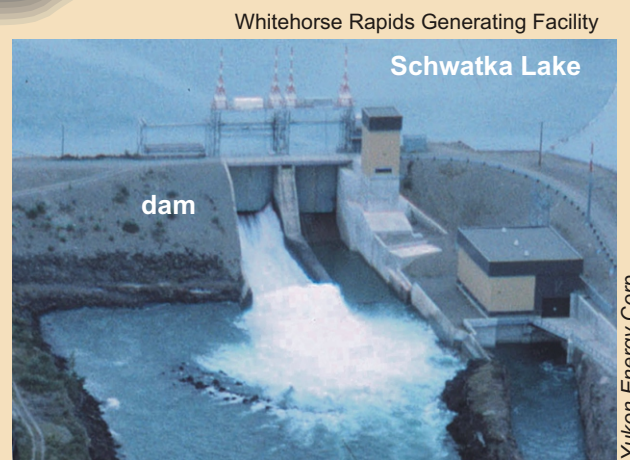


Today's Power Source

A hydroelectric dam was built on the Yukon River in 1957. Now the Whitehorse Rapids Generating Facility supplies four-fifths of Yukon's electricity needs. The basaltic lava flows that form the river banks at Whitehorse Rapids provide an excellent foundation for the dam and turbines. By raising the river level to create Schwatka Lake (reservoir), a "head" of 18m is produced to spin the four turbines. This power is distributed among the communities of Whitehorse, Carmacks, Faro, Carcross and Marsh Lake.



Whitehorse Rapids Fish Ladder



Around Whitehorse Rapids dam is one of the world's longest fish ladder. The series of pools and viewing chambers allows spawning salmon to continue their trip upstream, safely by-passing the hydroelectric dam. A visitor centre is open daily during the summer, and returning salmon and other fish are counted.



Want Information?

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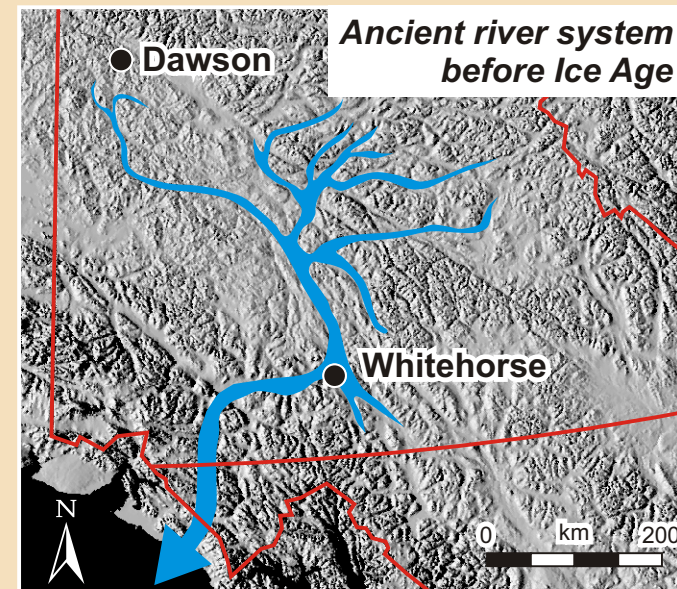
Geoscape Whitehorse

Geoscience for a Yukon community

The Yukon River

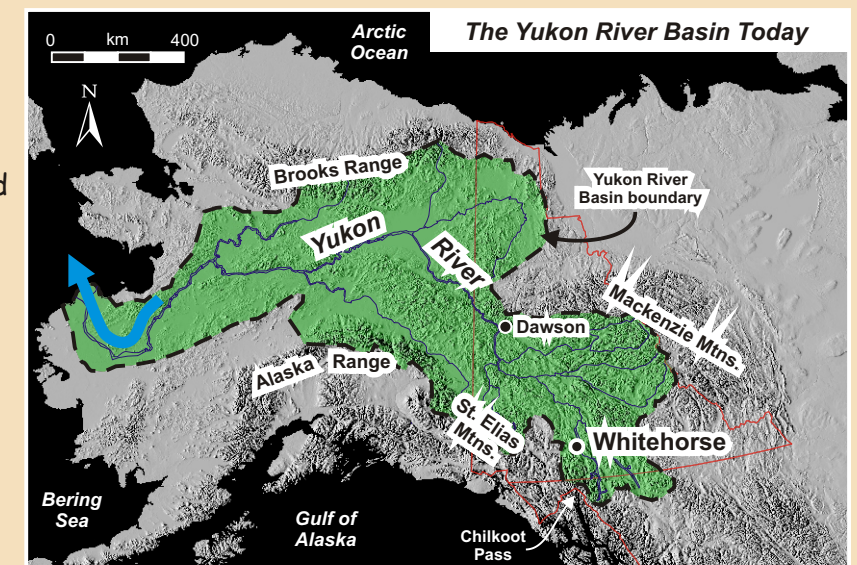
The Ancient Past

The head of the Yukon River, at Chilkoot Pass, is within sight of the Pacific Ocean. The river does not drain to the Pacific, but flows more than 3000 km to the Bering Sea. The present course of the Yukon River is relatively recent; it once drained southwestward through the Takhini and Alsek valleys to the Gulf of Alaska. This drainage was blocked by glaciers during the Ice Age, and waters in central Yukon were forced to find a new and much longer route through the ice-free terrain of Beringia to the Bering Sea. The drainage reversal is indicated by river terraces that slope southward and the tall river cliffs downstream of Dawson.



Miles Canyon and Whitehorse Rapids are even younger features which developed as the land emerged from the ice 10,000 years ago. Glacial-derived sand and gravel had filled the channel (it lies beneath Chadburn Lake and Riverdale suburb today).

As the rejuvenated river cut downward through the sand and gravel, it encountered bedrock on the west side of the valley. The bedrock was basalt, fractured into closely spaced columns. These columns of rock were eroded by the river to form a narrow slot - Miles Canyon.



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The Early Human History on the River

After the ice left the Whitehorse valley, there were no fish in the river. From stone and bone artefacts, archeologists believe salmon populated the watershed about 5000 years ago. From that time the stretches of the river provided excellent fishing. Salmon spawned at the bottom of the Klik-has Rapids (now known as Whitehorse Rapids). First Nations people speared the salmon in the rapids and set their nets in the eddies. The foot paths of the fisherman and river travellers were used to build Norman Macaulay's horse-drawn tramway that helped Klondike gold seekers circumvent Miles Canyon and Whitehorse Rapids.

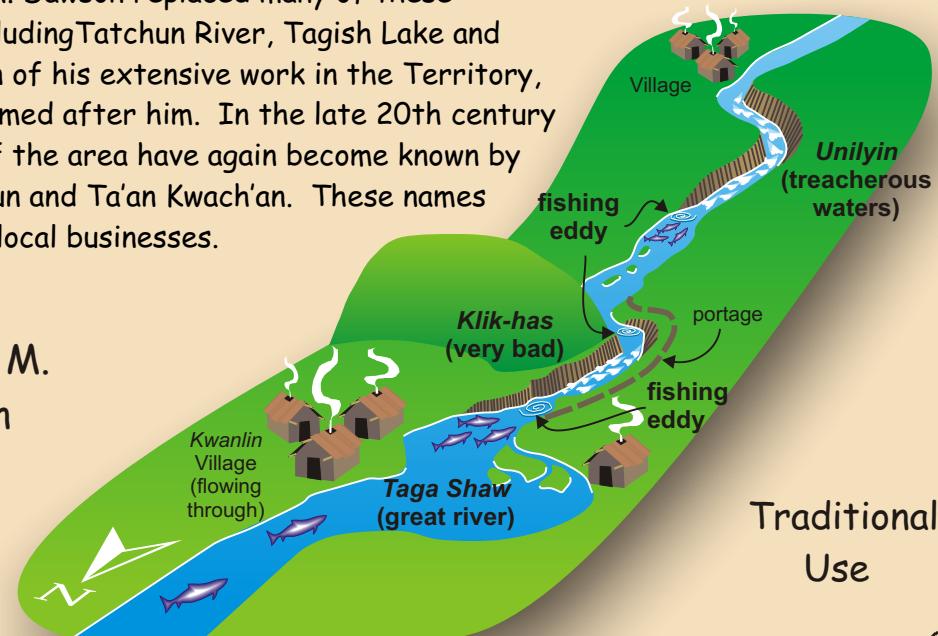
Yukon Archives/Richard Harrington Coll.



The names used by aboriginal people all but disappeared as explorers and stampedeers entered the country. In 1883, U.S. Lieut. Frederick Schwatka travelled the length of the river, naming features after the expedition sponsors, including Brigadier-General Nelson A. Miles. In 1887, the Canadian geologist G. M. Dawson replaced many of these with locally used names including Tatchun River, Tagish Lake and Rink Rapids. In recognition of his extensive work in the Territory, Dawson City is officially named after him. In the late 20th century the First Nation peoples of the area have again become known by their own names Kwanlin Dun and Ta'an Kwach'an. These names are also now used by many local businesses.

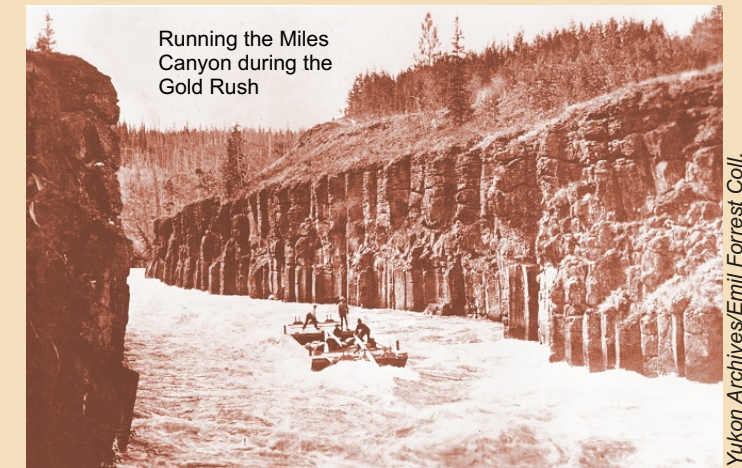


George M. Dawson



Gold Rush Transfer Point

Miles Canyon and Whitehorse Rapids were dangerous and famous obstacles to Gold Rush stampedeers bound for the Klondike goldfields. To bypass these rapids cargo was carried in horse-drawn carts on wooden rails, or "tramways", between transfer points at Canyon City and White Horse City. When the White Pass and Yukon Railway from Skagway was completed in 1900, a larger town (now Whitehorse) sprang up across the river around wharves where freight was transferred from rail cars to sternwheelers.

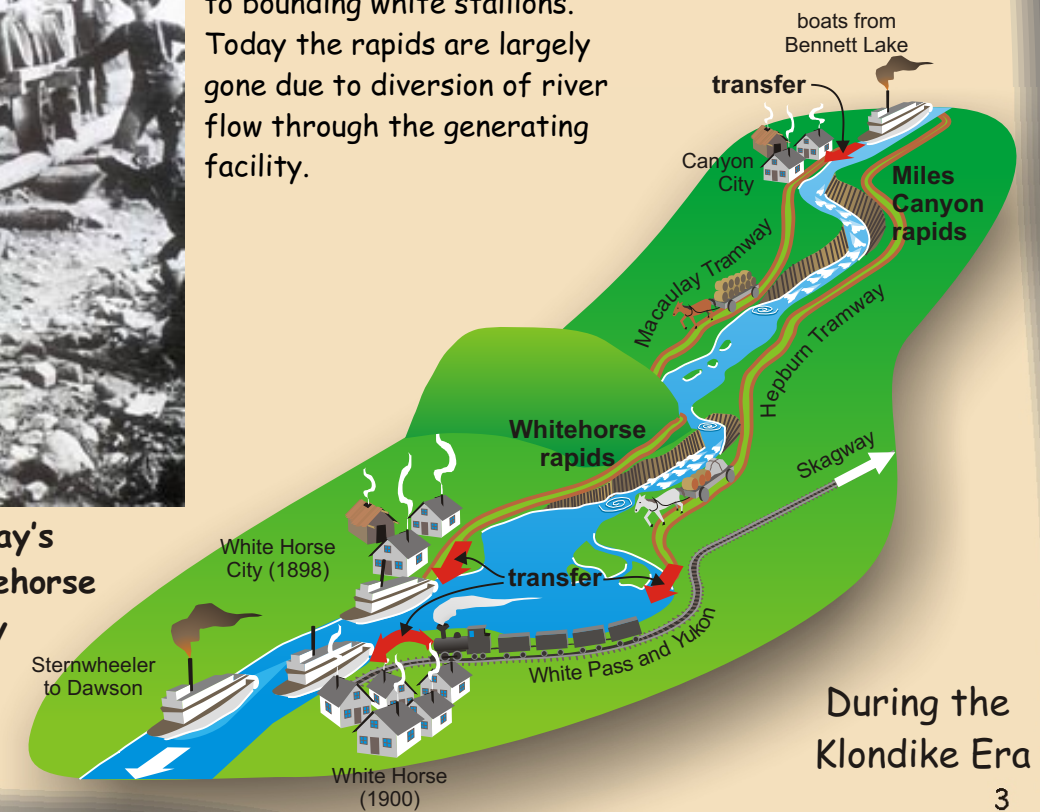


Yukon Archives/Emil Forrest Coll.



Norman Macaulay's Canyon and Whitehorse Rapids Tramway

The city of Whitehorse, therefore, owes its location to basalt flows that constrict the Yukon River and form rapids at Miles Canyon and Whitehorse Rapids. The Whitehorse Rapids were named for their resemblance to bounding white stallions. Today the rapids are largely gone due to diversion of river flow through the generating facility.



During the Klondike Era