

The Yukon River Inter-Tribal Watershed Council

INDIGENOUS OBSERVATION NETWORK



"We, the Indigenous Tribes/First Nations from the headwaters to the mouth of the Yukon River, having been placed here by our Creator, do hereby agree to initiate and continue the clean up and preservation of the Yukon River for the protection of our own and future generations of our Tribes/First Nations and for the continuation of our traditional Native way of life."

The YRITWC was born out of a 1997 international treaty made between Indigenous governments of Alaska and the Yukon Territory. Our principal goal is to protect the Yukon River watershed and its tributaries, facilitated through collective stewardship and cooperation.

The Indigenous Observation Network (ION) was developed through a grass roots movement. The main goal of the network is to train and empower local people to be stewards of the land and collect high quality data to promote the health of our River for future generations.

The YRITWC Science Department seeks to empower communities by providing the tools and skills necessary to conduct their own research from an Indigenous perspective. With the guidance of our elders and science advisors, the Indigenous Observation Network (ION) has successfully sustained the first long-term water quality study at the basin scale, installed an Active Layer Network (ALN) across the watershed and collected the first continuous river profiles of the Yukon, Procupine, and Upper head water lakes.

The observations collected by ION become integrated into a public database. The compiled data is used by the YRITWC to prioritize community outreach, organize sampling campaigns, work to address community concerns and report on the progress of projects.

The continued success of ION projects are made possible by collaborative partnerships between the Indigenous governments, YRITWC, USGS, ADEC, and the Yukon Territory Government (YTG). Each collaborator plays an important role in the success of the projects. Through respect, relationship, and reciprocity we are promoting the health of the Yukon River for future generations.



PARTICIPATING NATIONS

- Alatna Village Council
- White River First Nation
- Alakanuk Traditional Council
- Native Village of Bill Moore's Slough
- Anvik Tribal Council-Arctic Village Council
- Algaaciq Tribal Government-Daylu Dena Council
- Allakaket Traditional Council-Chuloonawick Native Village
- Asa'carsarmiut Tribal Council-Little Salmon/Carmacks First Nation
- Gwichyaa Zhee Gwich'in Tribal Government-Birch Creek Tribal Council
- Beaver Tribal Council-Canyon Village Council-Holy Cross Traditional Council
- Carcross/Tagish First Nation-Chalkyitsik Village Council-Kotlik Traditional Council
- Chevak Native Village-Circle Village Council-Kluane First Nation-Grayling IRA Council
- Emmonak Traditional Council-Kaska Tribal Council-Evansville Tribal Council-Liard First Nation
- Dease River Band Council-Hamilton Tribal Council-Hooper Bay Native Village-Huslia Tribal Council
- Hughes Village Council-Yupit of Andreafski-Kaltag Tribal Council-Native Village of Venetie Tribal Government
- Eagle Traditional Council-Koyukuk Tribal Council-Native Village of Minto-Iqurmiut Tribal Council-Louden Tribal Council
- Manley Village Council-Marshall Traditional Council-Mentasta Village Council-Kwanlin Dun First Nation-Nulato Tribal Council
- Native Village of Shaktoolik-Native Village of St. Michael-Native Village of Tanacross-Stebbins Community Association
- Na-cho Nyak Dun First Nation-Naqsraqmiut Tribal Council-Nenana Native Council-Paimiut Traditional Council
- Scammon Bay Traditional Council-Ohogamiut Traditional Council-Ruby Tribal Council-Selkirk First Nation
- Pilot Station Tribal Council-Ross River Dena Council-Shageluk IRA Council-Stevens Village Council
- Stebbins Community Association-Pitka's Point Traditional Council-T'a'an Kwach'an Council
- Taku River Tlingit First Nation-Tanana Tribal Council-Ti'ondek Hwech'in First Nation
- Teslin Tlingit Council-Venetie Village Council-Vuntut Gwich'in First Nation

The Healing Journey

since 2007



RIVERS TRAVELED
YUKON - 2007
PORCUPINE - 2008
HEADWATER LAKES - 2009

The Healing Journey serves to connect people to the River through hands-on science, community involvement and environmental stewardship. These canoe paddles pursue three central goals: (1) to spread the message of environmental stewardship to youth and communities along the rivers we travel, (2) to allow Traditional knowledge to guide our science, and (3) to collect and process scientific data to create a real-time baseline of an entire river system's health.

Yukon River Synoptic Survey

2009

In partnership with the Alaska Department of Environmental Conservation (ADEC) and the United States Environmental Protection Agency (EPA), YRITWC and ADEC science staff traveled from Fort Yukon, AK to Kaltag, AK as part of the National Rivers and Streams Assessment Program. The water samples and habitat assessments provide a "snapshot" of environmental conditions along the middle stretch of the Yukon River.



The above map highlights the region sampled and villages visited during the survey. Compiled data from the study will be available online www.yritwc.org.

Water Quality Monitoring Program

2006-Present

The Yukon River Basin is a benchmark for other large arctic basins and the "canary in the coal mine" for climate change.

Science Department Research Goals
WATER - LAND - PEOPLE - AIR

- Empower local people as technicians and analysts throughout the research process
- Understand ecosystem changes and their effect on people, wildlife, and resource availability
- Study the mechanisms causing changes in basic water chemistry
- Examine the dynamics of carbon cycling in the Yukon



2001-2008 DOC data from Pilot Station, near the mouth of the Yukon River. Carbon is just one of the many water quality parameters monitored by the YRITWC and USGS.

Monitoring Sites



Active Layer Network



The layer of ground above permafrost that thaws each summer is known as the "active layer". In 2009, the USGS collaborated with ION on a project to install a network of grid sites throughout the Yukon River Basin. Each site continuously monitors air temperature, soil moisture & soil temperature at surface level and just above permafrost. Each fall active layer depths are recorded by technicians from 100 points within the grid. The goal is to install a total of 20 grid sites distributed throughout the watershed. Building a long-term Active Layer Network across the basin is a valuable asset to the region in terms of scientific expansion and developing the local skill base.

