

Yukon River Inter-Tribal



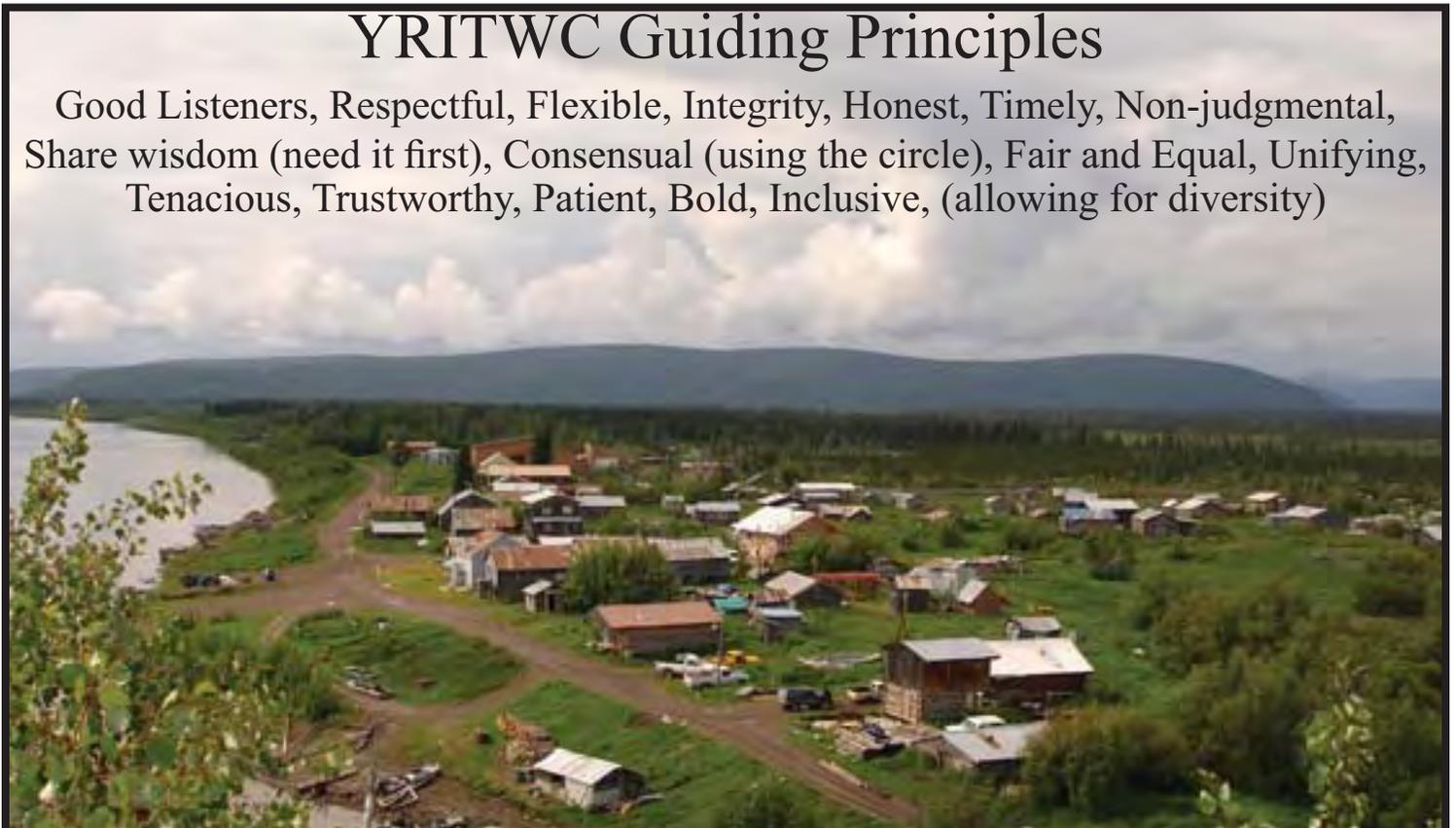
Chalk art from the 2004 YRITWC Leadership meeting in Nenana, AK. Photo by Rosalie Brandon.

Success Stories

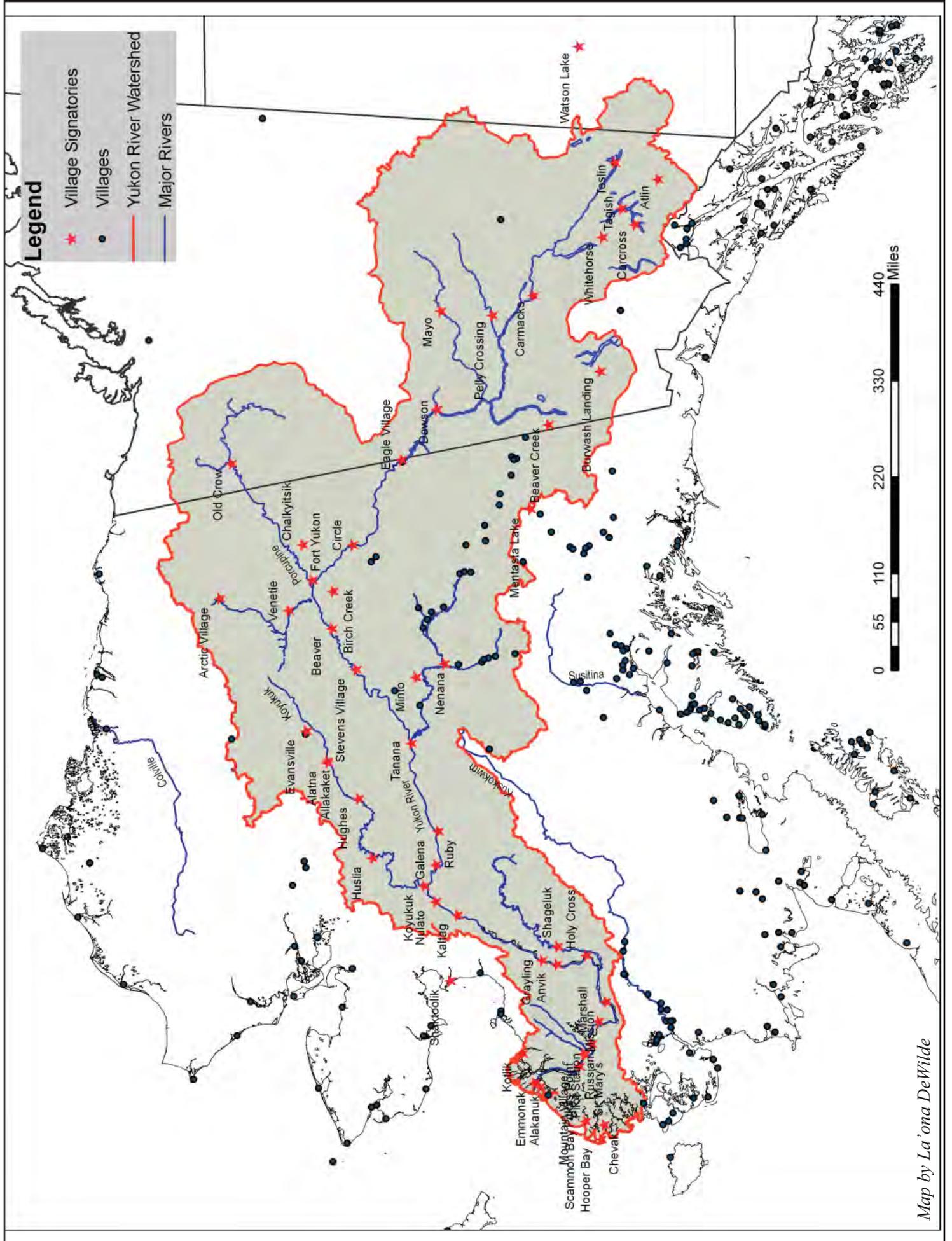
Tribal Environmental Program Success in the Yukon River Watershed

YRITWC Guiding Principles

Good Listeners, Respectful, Flexible, Integrity, Honest, Timely, Non-judgmental, Share wisdom (need it first), Consensual (using the circle), Fair and Equal, Unifying, Tenacious, Trustworthy, Patient, Bold, Inclusive, (allowing for diversity)



Nulato, AK. Photo by La'ona DeWilde



The Yukon River Inter-Tribal Watershed Council

Success Stories in the Yukon River Watershed

The Yukon River Inter-Tribal Watershed Council (YRITWC) is an international organization with 501(c)(3) non-profit status in the United States and Societal Status in Canada. As a coalition of sovereign tribal and First Nation governments, we were founded in 1997 by a group of 56 chiefs and elders who gathered in Galena, Alaska, to discuss their concern about increased cancers and other health problems in human communities and game species within the Yukon River watershed. From this gathering and based on these concerns, the Watershed Council was formed to restore the River and to protect it from further contamination.

The long-term vision—and the guiding light for the organization—was articulated by those Tribal leaders at the historic 1997 Summit that birthed the Watershed Council: to once again drink clean water directly from the Yukon River as our ancestors did for thousands of years before us.

Today, 62 of the 76 Indigenous governments within the watershed are actively participating in the coalition through the signing and enactment of an Inter-Tribal Accord that governs the YRITWC and gives each signatory government a seat on the Board of Directors. Noting that the indigenous communities are all connected and have a common interest in protecting the watershed, the Accord commits the signatories to cooperate and consult with each other on all actions that could affect the environmental and cultural integrity of the region while respecting the inherent sovereignty of each individual Tribe and First Nation.

The YRITWC maintains offices in Fairbanks and Anchorage, Alaska, USA, and Whitehorse, Yukon Territory, Canada, with a staff of thirteen. The Canadian and US offices are fiscally distinct, though we work together where possible to maximize efficiencies while ensuring no duplication of effort.

The Yukon River, over 2,200 miles long and draining an area of 330,000 square miles—about twice the size of California—supports the largest and longest inland run of Pacific salmon in the world. The watershed, which consists of the mainstem Yukon River and all tributaries, covers a vast portion of Alaska and the Yukon Territory in Canada and is the third largest basin in North America. Many of the Indigenous communities in the region are quite remote with no access to the primary road system and travel via airplanes, riverboats, dogteams and snowmachines. The River and surround-

ing lands provide over fifty percent of the Indigenous peoples' food and nutrition in the form of fish, moose, caribou, mountain sheep, rabbit, beaver, ducks, goose and other animals. Within Alaska, the YRITWC is comprised of Cupik, Yupik, Koyukon and Gwich'in Athabaskan Tribal Nations consisting of 62 Tribal communities, over 11% of all Tribes in the entire United States. Within Canada, the YRITWC is comprised of Gwich'in Athabaskan and Tlingit First Nations consisting of 14 individual communities. The overall population of the entire watershed is approximately 110,000 people, roughly 60% of whom are tribal or First Nation citizens.

Mirroring the diversity of the Indigenous peoples, the watershed includes 20,000 foot Denali, the tallest peak in North America, and the Yukon River delta at sea level, one of the flattest and wettest areas on the planet, along with glaciers, vast forests and wetlands. Wintertime temperatures can drop to 60 degrees Fahrenheit below zero with months of darkness while summertime peaks exceed 90 degrees with unending sunlight—a 150 degree temperature swing. Deposits of oil and gas, coal, gold, silver, copper, and other minerals are also found throughout the watershed.

Alaska and the Yukon Territory in general—and the Yukon River watershed in particular—were viewed as geostrategic military assets by the US government during World War II and the Cold War era. As a result, the Alaska-Canada (Alcan) Highway, several military bases, and a Distant Early Warning (DEW-line) radar system were quickly established in the region with little attention paid to environmental damage or long-term consequences. The Alcan Highway, military bases, and the remote DEW-line system have created a tremendous amount of contamination in the watershed, ranging from unexploded ordnance to a cracked and unrepaired nuclear reactor to large diesel and other chemical spills, including PCBs and other persistent toxins.

Aiming to address the root causes of environmental problems instead of just the symptoms, the YRITWC was created by the tribes and First Nations in the watershed to amplify their individual voices and find collective solutions to protect and restore the River that do not pit one group's well-being against another. The leaders who formed the YRITWC said they wanted an organization modeled after a traditional elder in representing the collective interests of the Indigenous peoples on the Yukon River, exhibiting the traits of wisdom,



*Executive Committee with Alaska and Yukon Region Directors
Moosehide 2005*

Left to right: Leslie McDarmid, Jessie Dawson, Edie Skookum, Albert Genier, Clarence Alexander, Edna Hancock, James Landlord, Peter Captain Sr., Harold Gatensby, Mary Andrews, Darren Taylor, Rob Rosenfeld, Bonnie Harpe on the microphone. Photo by James Stauch.

patience, tenacity, inclusiveness, and timely action. This is a high standard to uphold but one we take seriously and a lens through which we view all organizational decisions and actions. As a result, all of our work begins with direction and approval from the Tribes and First Nations that comprise the YRITWC, and our actions are bound by a set of formal protocols that have been developed by our governing members over our eight year history that emphasize mutual respect, honesty, and sovereignty. The primary intent of these protocols is to define when and how it is appropriate for the YRITWC to support Tribes and First Nations or alternatively, to

determine when the YRITWC should not be involved, such as when the membership is split about an issue.

The YRITWC combines an indigenous perspective with tools that have been developed by non-profit conservation and community development groups. Program activities currently underway include monitoring and mapping to help us understand the River; developing solid waste management, cleanup, and remediation plans with Tribes and First Nations; public education; community-based research on climate change and adaptations; development of a youth council; facilitating community involvement in targeted projects; and policy advocacy.

Broadly, our strategies include public education, outreach, and advocacy; networking with other groups to bring high quality trainings, expertise, funds, and other resources to indigenous communities; providing technical assistance on issues ranging from grants management to water quality monitoring, digital mapping, and toxic waste backhauling; directing media attention and scrutiny to issues that affect the peoples and the environment of the Yukon River watershed; and acting as an information clearinghouse for Tribes and First Nations. We have begun to actively map contaminated sites within the watershed and maintain an extensive website with these maps and other information, including a large annotated bibliography of studies related to the people and ecology of the Yukon River. Our emphasis is on helping Tribes and First Nations develop their own capacity for local issues and improving our internal capacity for broader regional and international issues



Executive Committee - Nenana 2004

*Back Row: Albert Genier, Pat Sweetsir, Harold Gatensby, Clarence Alexander, Karen , unkown, Kaz
Front Row: Edna Hancock, Bonnie Harpe, Peter Captain Sr., Jessie Dawson, CJ, James Landlord. Photo by Rosalie Brandon*

Yupiit of Andreafski

The Native Village of Andreafski is located on the North bank of the Andreafski River, three and one half miles Northwest of Pitka's Point on the Yukon River. This area is approximately one hundred miles northwest of Bethel, Alaska which in turn is approximately five hundred miles west of Anchorage, Alaska. The climate is continental with a significant maritime influence. Temperatures range between -44 and 83 degrees Fahrenheit. Annual precipitation measures 16 inches, with 60 inches of snowfall. The Yukon is ice-free from June through October.

The Native Village of Andreafski has been around for centuries and is a federally recognized Tribe. The village acquired its name from a Russian Trader name Andrea, who settled in the village and built the Russian Church. In the 1950's the St. Mary's boarding school moved to Andreafski, which they named St. Mary's, later to be incorporated as the City of St. Mary's, which completely surrounds the village. The population of St. Mary's consists of 600+ residents. 87.6% of the population is Alaska Native or part Native. The Yupiit of Andreafski is one of two tribes in St. Mary's. St. Mary's is a Yup'ik Eskimo community that maintains a fishing and subsistence lifestyle.

Solid Waste

Solid waste is the number one priority in the rural community of St. Mary's. The tribe continues to strategize ways to ship out recyclables and maximize the tribal environmental program capacities and resources. Therefore, the Yupiit of Andreafski Tribal Government has worked to educate the community about solid waste issues, reducing waste in the landfill, and hosts an annual spring clean up in the village. Through Serena Alstrom's tenacious and creative work as the Environmental Program Director, the environmental department has cleaned up the community and had fun doing it.

In June 1999 the Yupiit of Andreafski and Algaaciq Tribal Government worked together to ban plastic bags in the St. Mary's. Both tribes presented resolutions requesting a ban of plastic bags to the City Government of St. Mary's, which the City adopted and enforced in the community. Consequently, the two grocery stores switched from plastic to paper bags and are still in compliance with the ordinance today.

Youth involvement

Every spring Serena applies for the Alaskans for Litter Prevention and Recycling (ALPAR) mini-grant for the Youth Litter Patrol. To increase incentive for youth participation,

businesses in the community donate money and items to reward youth with cookouts and prizes. This is a successful event every year and the positive impact is spreading through the community. Serena has seen the amount of trash collected go down from 500 bags in 2001 to 388 bags in 2004. While the amount of trash had decreased, the community support and donations have increased over the years. Serena and her staff think outside the box as they involve and reward the youth of St. Mary's and it shows with increased involvement every year.

In the summer of 2003, the St. Mary's youth group invited the community to participate in the "Recycling Challenge". Thirty households signed up to recycle aluminum cans and old car batteries. Each household brought their cans or batteries to the

drop off site and the youth recorded the number of items and weight. In a six month period they collected 715 pounds of aluminum, 55 car batteries and 23 pounds of household batteries. During designated drop-off days, the youth would bag the popcans, tag the bags for shipping, and record the weight of recyclables. On New Year's Day, the Grand Prize winner received two round-trip tickets to Honolulu, Hawaii with Hawaiian Vacations.



Jay Luke, Environmental Assistant, help Youth Litter Patrolers Arthur Beans and Earl Alstrom remove an old fish net off the beach during a clean up in St. Mary's.

Photo by Serena Alstrom

Recycling: aluminum, oil, dead car batteries: St. Mary's has two used oil burners that are stationed at the City of St. Mary's and Hageland Aviation. Community members can drop off used oil at either location. The City of St. Mary's also stores the dead car batteries until they are transported by Yutana Bargeline or Northern Air Cargo. A large bin is located outside the Townsite Hall for pop cans and the Yupiit of Andreafski makes sure they are bagged properly and taken to Northern Air Cargo for backhaul under the Free Flying Cans Program sponsored by ALPAR.

Backhaul

This past year Yupiit of Andreafski has successfully backhauled cars, snowmachines, and computers from the village with the support of the YRITWC Backhaul Program. Serena and her staff partnered with the Department of Transportation (DOT) and the City of St. Mary's to move large items from around the town to the city dock. The DOT

through a series of workshops for community members, youth, and tribal staff. Serena has been the lead organizer to launch initiatives in youth environmental awareness and leadership by involving them in structured activities, talking to experts in the field, and building youth interest through hands on environmental education activities. Adults became interested in the events and activities as their children were participating in them. And tribal staff continue to develop personal leadership skills through event organizing, teaching, and increased contact with experts in a variety of fields regarding water quality, environmental education and youth leadership.

In 2001, the tribal staff developed and organized a conference focused on environmental education for grades 4-12 at the St. Mary's School. The students learned about water quality, recycling, waste stream analysis and participated in leadership sessions. Guest speakers included Bill Stokes with Alaska Department of Environmental Conservation (DEC), Stephan Koruba a VISTA Volunteer out of Bethel and local recycler Rosaline Virg-in to help with the three day event.

The second Environmental Education Workshop in September 2002 focused on educating the community and youth about environmental problems facing St. Mary's. She helped coordinate this workshop with the Algaaciq IGAP Department Director Ivy Lamont. The three day event brought youth and elder together to bridge the age gap and work together on solid waste solutions. More than 50 students participated with the support from many of the adults. Guest speakers included Polly Carr from the Alaska Youth for Environmental Action (AYEA) funded by the National Wildlife Federation, Tricia Waggoner with the Yukon River Inter-Tribal Watershed Council, and Nathan Spees from the US Environmental Protection Agency (EPA). After the workshop, a youth leadership group was formed. This group addresses solid waste issues, educational issues, and continues to build leadership skills for the members. Serena supervises this group and keeps in contact with



Serena Alstrom conducts water testing with the 4th grade class. Left to right: John Afcan, Jennifer Mochin, Jeanette Stevens, Natalia Mochin, Alecia Astrom, John Hootch (head) as part of the UAF Cooperative Extension 4-H Fisheries program. Photo by teacher Sunna Fesler

volunteered their time and heavy equipment to move cars and trucks from the St. Mary's landfill, the neighboring village of Pitka's Point, and the St. Mary's Village. A total of 25 vehicles were backhauled this year.

They loaded a second barge with broken down 4-wheelers, snowmachines, and 2 pallets of computer equipment. The backhaul momentum picked up with support from many organizations and businesses offering to help gather more junk. However, the backhaul season was coming to a close so many of the items will have to wait until next year.

Finally, a third backhaul shipment was organized by Serena and Jay Luke. They packed 69 large batteries in two totes that were provided by YRITWC. An estimated 110 batteries still are waiting for deployment.

Capacity Building

The Yupiit of Andreafski has been strengthening environmental awareness, stewardship, and youth leadership

Polly Carr from AYEА.

The Lower Yukon Water Quality Workshop was held in July 2003. To prepare for this gathering, Serena held teleconferences with Environmental Coordinators to gather their input and desired outcomes from the workshop. She invited guest speakers from the Yukon River Inter-Tribal Watershed Council, DEC, EPA and Fish and Wildlife Service and Alaska Science Commission to discuss and educate participants about water quality, contaminants mapping, environmental education. Tribal Leaders, youth, elders and community members attended meetings and sessions. The evenings were filled with Eskimo dancing, potlucks and fiddling or relaxing boat trips up the Andreafski River.

Youth Leadership

The Andreafski Tribe request essays from the youth that are interested in attending an event. Essays are judged by the tribal staff and the selected youth are required to submit a

trip report, which is usually read to the Tribal Council during a regular Council Meeting. Giving the youth opportunities to become involved with conferences, meetings, and activities expand their minds and builds upon their responsibilities, giving them the confidence to place themselves in leadership roles. The community benefits from the experiences and knowledge the youth gain. By giving youth the responsibility to research a topic, present the information they learn about, submit a report, and build relationships with other people build skills necessary to foster strong leaders for tomorrow.

Environmental Education

Environmental Education is delivered and experienced in many ways. In terms of Environmental Education in the school, Yupiit of Andreafski would like to see teachers include and utilize the surrounding land and resources to meet teaching standards. A successful project in the school is the 4H Fisheries Program. The class raises fish eggs in a tank and calculates the temperature to determine the time of hatching. This program is region specific to the watershed and the 5 salmon species that spawn in the Andreafski River. The students learn about the salmon life cycle, local watershed, water quality, and habitat that salmon need to survive. Elders from the community have also come in to talk about the importance of fish and tell stories of when they were young. This program is just the start and Serena hopes to have more participation with the school in the tribal environmental program.

Obstacles

Working around and overcoming the obstacles are what Serena thinks the job is all about. Communication is number one priority because she is serving the Yupiit of Andreafski tribal members. If she doesn't know what their concerns are, she cannot help or improve upon the environmental situation. Improving communications with the program and the many other entities they partner with is something that can always be improved upon.

Sustaining the Program

The Yupiit of Andreafski built partnerships with the school and local businesses. They are all are willing to take responsibility to help out in any way. Serena obtains funding from the EPA IGAP program and ALPAR for solid waste and environmental education activities. She is proud that the people in St. Mary's are always willing to prevent pollution and improve the environment.



Serena Alstrom works with Alaska Youth for Environmental Action with an activity in Fairbanks. Students were from around the state of Alaska. Photo by Polly Carr.

Iqurmiut Tribal Council

Iqurmiut Tribe is the federally-recognized tribe in Russian Mission, located on the west bank of the Yukon River in the Yukon-Kuskokwim Delta. Russian Mission is a subsistence based Yup'ik Eskimo village located 70 air miles northeast of Bethel and 376 miles west of Anchorage. The climate exhibits a significant maritime influence. Temperatures range from -54 to 86 degrees Fahrenheit. Annual precipitation is 16 inches, with snowfall of 60 inches. Heavy northern winds often limit air access in the fall and winter. The Lower Yukon is ice-free from mid-June through October.

The first Russian American Company fur trading post on the Yukon River was established in 1837. The settlement was recorded as an Eskimo village called "Ikogmiut," meaning "people of the point," in 1842 by the Russian explorer Zagoskin. The first Russian Orthodox mission in Interior Alaska was established there in 1857 by the Russian-Aleut priest Jacob Netsvetov. The mission was called "Pokrovskaya Mission," and the village name was changed to Russian Mission in 1900. The City was incorporated in 1970.

Anastasia Larson, the Environmental Coordinator for The Iqurmiut Tribal Government, established their program priorities on everyday environmental issues. She and her staff work to address solid waste, hazardous waste, documentation of traditional land use, and water quality monitoring.

Currently, the Iqurmiut environmental program collects a variety of recyclables such as aluminum cans, clothing, dishes, batteries, and waste oil. Iqurmiut provides a space to recycle clothing and dishes. They announce available items; display them for the public and ship out the unwanted items to needy organizations.

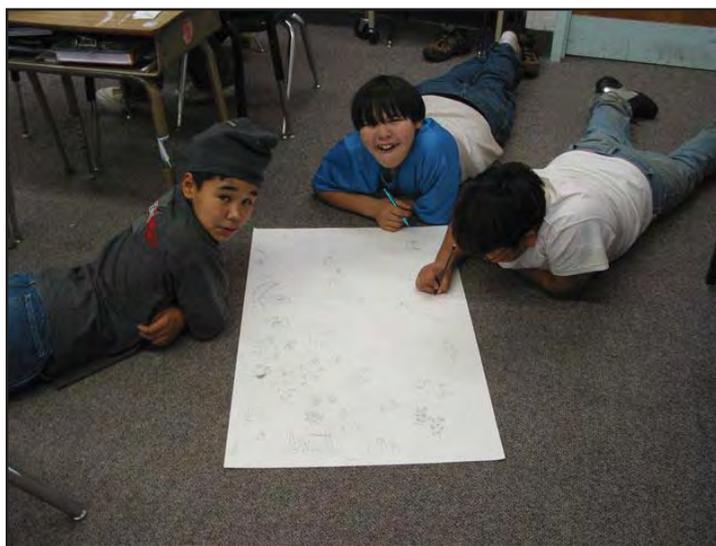
Used vehicle batteries and waste oil are collected and shipped out with the Yutana Barge line every year since 2002. This

program has been one of the strongest and sustainable due to strong partnerships and the consistent communication with the barge company. Waste oil, as of last year, is now redirected to KAKO 5-6 miles above Russian Mission. Last year, four drums were shipped up there to be used as a fuel source for a camp.

Anastasia is also working to identify subsistence gathering sites with residents who visit and use them for activities such as berry picking. The community priority is to locate and document frequently visited sites, which have been traditionally passed down from generation to generation. Anastasia and the environmental staff work on local education to remind residents and non-residents to clean up after themselves when they are done with lunch or just hanging out. This education is continued with community wide clean-up days throughout the year. The Tribal Environmental Program presents their accomplishments at the annual tribal gathering. The community has shown great appreciation for their hard work.



*Iqurmiut tribal council works hard to clean up the land.
Photo by Anastasia Larson*



*Three students work on a classroom activity.
Photo by Anastasia Larson*

Community Education

The community faces environmental issues on a daily basis. Therefore, they are looking to better the community through environmental education for youth and adults. Currently, the school and Iqurmiut Tribal Government work

together teaching fifth and sixth graders about the local habitat, traditional and local uses of plants and wrap all this knowledge up in the Fall and Spring camp outs.

With the support of the Tribal Government and committed teachers from the school, Russian Mission students started a Hazardous Waste Collection Site. They stenciled signs and barrels for waste oil collection, developed a battery collection program and educated the community about the new facility. The environmental

science class took the lead on this project which still operates today. Students and community members are taking action to protect the environment and properly dispose of hazardous materials for themselves and future generations.

Now community residents are properly disposing of solid and hazardous waste. The Environmental Department receives calls from people asking for proper disposal procedures and location for drop off sites. Finally, with the establishment of collection sites and the YRITWC and Yutana Barge Lines partnership, Iqurmiut backhauled heavy equipment, snow machines, and trucks during the summer of 2005. They are looking forward more backhaul with the YRITWC.

Future Work

With the opportunity of IGAP grant they deal with local environmental issues using firsthand knowledge. As for our future project they will continue working towards improving the local environment for the better of our children and their children's children.

Obstacles

One of the biggest challenges they face is cleaning up the landfill because the tribe doesn't own the land. Iqurmiut Tribal Government has to go through the City if they want to clean up or actively monitor the land fill. Fortunately, the City is very cooperative about letting Iqurmiut help out. Anastasia knows that with all the work and challenges she faces on a day to day basis she will overcome the obstacles with tenacity the support of the community.

Sustainability

Anastasia combines partnership building, funding strategies, and staff retention as her strategy for sustainable program development. They apply for two to four years of IGAP funding which has provided the foundation for the environmental department. They also use the Raven Ameri-corp pro-

gram, and Alaskans for Litter Patrol and Recycling (ALPAR). The partnerships they have formed with the City of Russian Mission, the school, Arctic Transportation Service, and the YRITWC have helped achieve their goals for a cleaner community with backhaul education programs in the school.

Staff turn over can be a very challenging reality. The Tribe is faced with annual elections for tribal government seats, and tribal staff positions experience the revolving door phenomenon at times. For example, in 2002, the environmental department had three staff on board. Then in 2003, Anastasia was the only staff person. And now she has an assistant to help out with the program.

Finally, Anastasia noted that IGAP is a very successful and important grant for tribes. She strongly believes each tribe should apply for the grant.

Anvik Tribal Council

Anvik is located in Interior Alaska on the Anvik River, west of the Yukon River. Temperatures range from -60 to 87 degrees Fahrenheit. Total precipitation averages 21 inches per year and snowfall averages 110 inches per year. The Yukon River is ice-free from June through October.

Anvik has historically been an Ingalik Indian village. The Russian Glazanov reported it having 100 people in 1834. Anvik was originally located on the south side of the river, to the northeast, at a place called the Point. Residents from Point moved across the river in 1887 when the Episcopal mission and school were built. The Post Office opened in 1897. After the flu epidemic of 1918-19, and another in 1927, many orphans became wards of the mission. Some children came from as far away as Fort Yukon. Sternwheelers carried supplies to the village in the early 1920s. Some residents had contracts to cut wood for the sternwheeler's fuel, and fish and fur were sold to traders. The early 1930s brought the first arrival of the plane on skis. The city was incorporated in 1969.

The Anvik Tribal Environmental Department identified the environmental priority of Solid Waste Management with an emphasis on locating and developing a new solid waste landfill site and to develop an Integrated Solid Waste Management Plan. They will also develop a recycling and backhaul programs; develop a GPS/GIS database of contaminate sites and other areas of environmental concern; clean-up of contaminated sites under the EPA Brownfield program; and develop a water quality monitoring program for both surface and groundwater in the area.

The Anvik Tribal Council has completed a Draft Integrated Waste Management Plan and is pursuing funding for relocation of the Solid Waste Landfill. They obtained funding from the Denali Commission for new fencing around the landfill and obtained a burn box to maximize the life of the landfill.

Anvik Tribal Council also established recycling programs for automotive batteries and aluminum cans, and has backhauled junk vehicles in the summer of 2005. Sixteen local responders are fully trained



Welcome sign at the boat landing. Photo by Jon Waterhouse

through the 40 hour HAZWOPER training with certification to help in the development of the Tribal Response Program.

Obstacles

Anvik worked hard to obtain funding for the Tribal environmental program. They continue to learn the steps involved to obtain higher levels of funding through the EPA. Mike Grundberg, the Director for the tribal environmental program, works hard to meet the established priorities and bring money to the program to meet their needs. They currently use EPA funds, Denali Commission, and BIA money.

They have worked hard to develop partnerships with Alaska Department of Environmental Conservation, the Denali Commission, the YRITWC, Tanana Chiefs Conference Office of Environmental Health, the Yukon-Kuskokwim Health Corporation Office of Environmental Health, the Indian Health Service/Alaska Native Tribal Health Consortium (ANTHC), and the Solid Waste Alaska Network website.

Program Sustainability

The Anvik Tribal Council is pursuing diverse grant

opportunities for sustainable funding. They also developed Memorandums of Agreement between the Tribe and the Anvik City Council to establish cooperative management for Municipal Solid Waste and Water and Wastewater.



Anvik community members gather at the school gym for an environmental meeting. Photo by Jon Waterhouse.



Mike Grundberg shows YRITWC staff backhaul locations. Photo by Jon Waterhouse.

Nulato Tribal Council

Nulato is located on the west bank of the Yukon River in the Nulato Hills. The village is situated 35 air miles west of Galena and 310 air miles west of Fairbanks. Its municipal boundaries encompass approximately 46.5 square miles. The Innoko National Wildlife Refuge borders native lands on the southeast. The village is located within the boundaries of the native corporation Doyon, Ltd.

The Nulato residents are primarily Koyukon Athabascan Indians; with a traditional subsistence lifestyle. Nulato was the trading site between Koyukon Athabascans and Inupiaq Eskimos from the Kobuk area, which is west and north of Nulato. Western contact increased rapidly after the 1830's. In 1851, the Koyukuk Indian, located north of Nulato, attacked the Nulato Indian Village at dawn. A large portion of the Nulato Indians was massacred and the village burned.

By 1870, missionary activists were coming to Nulato and the surrounding region. Many Indians moved to Nulato after a Roman Catholic Mission and school were built there in 1887. Once again, epidemics began to cripple the community especially after the start of the Yukon-Koyukuk gold rush in 1884. In 1897, a post office was established and by 1901, a telegraph line had been constructed, linking Nulato with the surrounding communities. Nulato continued to flourish as a steamboat supply point even after a large number of the gold prospectors left the Yukon area in 1906.

Nulato was incorporated as a second-class city in 1963. Nulato is recognized by the Alaska Native Claims Settlement Act (ANCSA) of 1971 and is a member of the Yukon-Koyukuk Subregion of the Tanana Chiefs Conference, Inc. (the ANCSA Regional non-profit Corporation). In the late 1970's the community decided to develop a new town site in the hills just west of the old town site. Moving from a flood plain area was the primary motive for the new development. Ice jams and stream overflows cause flooding in the old town site about every two to three years. By 1978 a health clinic was established at the new town site and in 1981, large scale housing construction began.

Shirley Kriska, the Tribal Environmental Director and Lisa Patsy, Assistant, have one major focus in their work, solid and hazardous waste. Dealing with solid and hazardous waste is no easy task. They are working to close and relocate the landfill, recycle aluminum cans, backhaul junk vehicles and lead acid batteries, ban plastic bags, and control burn barrel activity in the community. They also have a pet project collecting pull tabs for the Ronald McDonal House for Children.

A couple years ago, Nulato faced a solid waste dilemma. Their landfill was reaching maximum capacity and

the tribe didn't have the money to closeout and relocate the site. The tribal environmental program informed the community about the landfill situation and implemented programs to reduce the amount of waste going in the landfill. Over the last couple of years Shirley and Lisa accomplished a reduced waste flow into the landfill through the aluminum can recycling, ink cartridge recycling and the backhaul programs. They also made signs informing people where to place their trash at the landfill.

Further, many community members use burn barrels to curb the volume of trash accumulating at the landfill site. Unfortunately, burning trash can lead to poor air quality by igniting non-paper garbage and by burning during the day when children are out playing. **The Obstacles**

There is still more work to be done however. Shirley continues to submit proposals to close-out and relocate the dump. To this day, she has been unable to gain the needed funding to accomplish this task. She also wrote a proposal to purchase a burn box and educate community to reduce waste volume in the landfill but that proposal wasn't funded either.

Their aluminum can recycling program is so successful they are running out of space to store the cans. The airline services are only able to fly out a



Open dump in Nulato. Photo by La'ona DeWilde.

certain amount of aluminum due to the limited space in the plane.

Grant writing and reporting takes a significant portion of time to maintain. Shirley is glad to see the Circuit Rider initiative start up because they would like support on grant writing, finance reporting, and quarterly reports.

The Environmental reality in Nulato has improved over the years. But the Nulato Tribal Environmental Department would like to see community members change their habits even more. Shirley will continue to educate the community for change in the future.

Sustaining the Program

Shirley sustains the environmental department through partnerships, funding and professional development. The solid waste partners: Yutana Barge Lines, Frontier Flying Service, ABC Battery Supply, and the Flying Can Program provide the resources to remove vehicles, batteries, aluminum cans, and lead acid batteries from the village.

The Village Council works closely with the City who was able to use their heavy equipment, operators, and local laborers to move the junk cars down to the loading dock for the barge pick up. Another local partnership is with the Yukon-Koyukuk Environmental Consortium, which includes Ruby Tribal Council, Huslia Tribal Council, Loudon Tribal Council, Kaltag Tribal Council, and Koyukuk Tribal Council. Carole Holley, Environmental Director at the time, and Darcie Warden, Programs Coordinator at the time, for Loudon Tribal Council worked with the Consortium to develop solid waste strategies and backhaul options in the area. The combined effort among all the villages proved to benefit Nulato in order to learn and work through the process.

The Nulato Tribal Environmental Program continues to be funded through the IGAP program. They continue to work with the YRITWC for backhaul support and contract out for solid waste removal support.

One of the keys to sustaining the environmental department is to continue professional development for the staff. Shirley and Lisa attend conferences and workshops to learn about the latest technology and solid waste solutions for rural Alaska. They, in turn, work with teachers and students in the school on environmental education, hoping to see change in the younger generation.



ALPAR bags are transported by 4-wheeler after the cleanup. Photo by La'ona DeWilde.

Louden Tribal Council

Galena is located on the north bank of the Yukon River 270 air miles west of Fairbanks. The area experiences a cold continental climate with extreme temperature differences. The average daily high temperature during July is in the 70s; the average daily low temperature during January ranges from 10 to below zero. The River is ice-free from mid-May through mid-October.

The area's Koyukon Athabascans had spring, summer, fall, and winter camps, and moved as the wild game migrated. In the summer many families would float on rafts to the Yukon to fish for salmon. Galena was established in 1918 near an old Athabaskan fish camp called Henry's Point. It became a supply and trans-shipment point for the nearby lead ore mines. In 1920, Athabascans living 14 miles upriver at Louden began moving to Galena to sell wood to steamboats and to work hauling freight for the mines. A school was established in the mid-1920s, and a post office opened in 1932. During the 1950s, military facilities at the Galena and Champion Air Force Stations, airport and road developments sparked growth in the community. Due to a severe flood in 1971, a new community site was developed at Alexander Lake, about 1.5 miles east of the original town-site. City offices, the health clinic, schools, washeteria, store, and more than 150 homes were constructed at "New Town," and a city government was formed. The Air Force Station was closed in 1993, and some of the facilities are currently being used by the Galena School District as a Boarding School. The Base facilities are maintained under contract by the Chugach Development Corp.

Tribal Environmental Priorities

Louden Tribal Council's over all environmental goal is to protect human and environmental subsistence resources. So the community established environmental priorities of solid waste, hazardous waste, military contamination, indoor air quality, partnership development, and environmental education.

Solid Waste

As in most villages solid waste management is a challenge. In order to address this challenge Louden Tribal Council partnered up with the high school science class to conduct a waste stream analysis. The Louden Tribal Council provided four 5-gallon buckets to participating community members homes. Each participating household separated their solid waste by paper, plastic, aluminum, and other for one month and weighed them. The science students collected the data and graphed it out. They found paper to be the largest amount of waste going into the landfill.

Around the same time Louden Tribal Council worked with students to address the plastic bag problem. Bags were blowing around the dump, getting stuck in trees, and an overall nuisance

in the community. With support from the Louden Tribal Council, students approached the city council with a request to ban plastic bags from the community. The tribe purchased canvas bags, students painted the bags, and together they handed them out to community members to use in place of the bags. The City of Galena supported this effort and passed a city ordinance to ban plastic bags.

A transfer station and hazardous waste collection site was established in 2003. Through a strong partnership with the City of Galena and creative funding with the Denali Commission and the EPA residents separate their trash by paper, aluminum, batteries, and hazardous waste. The rest of the trash is compacted and sent to the landfill. Larger items such as vehicles and snow machines have

been backhauled several years in a row. These clean up efforts in the community help the City manage the dump. They now have regular hours of operation and monitor the activity, separation of waste and burning. Further, a burn box has been purchased to extend the life of the landfill 50 years.



*The City of Galena manages the transfer station with the support of Louden Tribal Council.
Photo by Danielle Brown-Farrell.*

Monitoring

In 2002 EPA approved Louden Tribal Council's Quality Assurance Project Plan (QAPP) to establish baseline water quality data in and around the village. Monitoring

activities include resident fish species tissue sample from burbot livers for contaminants and baseline water quality monitoring at sites determined by the tribe.

Partnerships in monitoring

Louden Tribal Council and the US Air Force have been neighbors since the early 1940s. After the Campion Air Station was torn down and the Galena Air Station closed its full operational status to “care taker” status, the community called on the government to clean up the contamination left behind. 1st Chief Peter Captain Sr. along with tribal staff and council members developed one of the first government to government consultation agreements with the US Air Force to address contamination on the land and in the water. Years of meetings between the Tribe and the Air Force created a strong partnership, eventually forming a Technical Project Team in 2003. Team members from Louden Tribal Council, Yukaana, City of Galena, US Air Force, the Department of Transportation and the Department of Environmental Conservation work to evaluate and monitor the cleanup effort. The diversity in this group maintains the integrity of the technical, cultural, and land use pieces of the project.

Environmental and public health also concerns the community which the tribe has addressed through a risk assessment conducted by the Agency for Toxic Substances and Disease Registry (ASTDR). After a two year study a final public health assessment will be available to Louden Tribal Council.

Partnerships in Education

The Louden Tribal Council, US Fish and Wildlife Service, and the Galena City School District signed a Memorandum of Agreement to bring environmental education into the schools. After the agreement was signed student exposure to environmental education increased dramatically. Guest speakers from various parts of Alaska shared their knowledge with students, annual summer day camps take place, after school environmental education activities are provided during the week, and staff from Louden Tribal Council partnered with teachers on solid waste projects, gardening projects, watershed education in the classroom, and community education events.

Obstacles

Obtaining funding and resources are a challenge in the State of Alaska. The State of Alaska does not recognize federally recognized tribes. That means there is no government-to-government consultation between tribes and state agencies. There are partnerships but the

government-to-government relationship needs to be acknowledged. A challenge is high staff turn over.

Meeting the Environmental Priorities

Louden Tribal Council achieved their environmental priorities through strong partnerships within the community including: the City of Galena, The Galena School District, local businesses, military, and US Fish and Wildlife Service.

Those strong partnerships help diversify funding opportunities which Louden uses to strengthen their financial base. They remain tenacious through challenges and continue to work for a healthy environment and healthy people.

Although the military base is closing down, through the Base Closure and Realignment Commission (BRAC) process, the Louden Tribal Council will still keep on top of the environmental cleanup of the surrounding local degradation. Also, through partnerships already formed Louden Tribal Council will be able to utilize more of the buildings with strategic planning (city, US Fish and Wildlife, BLM, and private enterprise). A local redevelopment authority already exists in Galena to further plan reuse of the existing base facilities.



The Yukon River eight miles up the road from Galena.

Photo by Danielle Brown-Farrell.



Chief Peter Captain Sr. works closely with tribal staff in the environmental programs. Photo by Matt Hage.

Tanana Tribal Council

Tanana is located about two miles west of the confluence of the Tanana and Yukon Rivers. The Tanana Tribal Council is the federally-recognized tribe located in the village. Due to the location of the village at the confluence of the Tanana and Yukon Rivers, Tanana was a traditional trading settlement for Koyukon and Tanana Athabascans long before European contact. The traditional Athabascan way of life is the dominant lifestyle among locals with subsistence hunting and gathering, potlatches, dances, foot races, and sled dog races as part of the culture.

After European contact in the 1800's, life changed quickly for the local culture. In 1880, Harper's Station, an Alaska Commercial Company Trading Post, was established 13 miles downriver; which opened the door to the Church of England missionaries from Canada who built a mission 8 miles down river from Tanana. This location, also known as Kokrine Hills, is still used today as an annual summer bible camp.

Ten years later missionaries built a school and hospital known as the St. James Mission. This complex offered important services to many villages in the interior and became a catalyst for social change along both rivers. New hospital facilities were built in 1949; and during the 1950s, hospital administration was transferred to the U.S. Public Health Service. The hospital complex was a major employer during this period, employing 54 persons with a payroll of \$1.6 million, but was closed in 1982.

Tanana was identified and used by the military to maintain telegraph lines and in WWII an airbase was built for the lend-lease aircraft program as a refueling stop. Neither one of these military installations are in use today

Five years ago, Stan Zuray and Kathleen Peter-Zuray partnered with the Tanana City School District to start a Spirit Camp located on the Yukon River. Ever since then, Stan and Kathleen spend every summer with youth at the Annual Conservation Camp working with youth, guest speakers, teachers, and community members.

Eight weeks out of the summer, during the salmon runs, four to five students spend one week at a time camping, fishing, and learning about their local environment. They are immersed in a week of experiential learning studying fish, fish disease like *Ichthyophonus*, water quality with Paul Erhart, a local biologist, water sample collection, collecting and reporting information, subsistence fishing, fish cutting and processing. The camp has come so far as to offer computers for students to complete their work and create presentations about what they have learned.

Accomplishments

Every year of the camp builds upon the success and knowledge gained from the previous year. During the first year, students gathered Traditional Ecological Knowledge by interviewing elders about their lifestyle, fishing, subsistence, change in fish and game and, identifying

traditional use areas - one of which the camp is located at. They work with state and federal agencies to learn about career options, hold guest lectures with US Fish and Wildlife (USFWS) staff, and students work for USFWS as technicians to gain experience and earn a little money. All of these activities give students a self esteem boost and it begins to build a resume of their experience.



Aerial view of Tanana. Photo by La'ona DeWilde.

Sustainability of the Program

Stan and Kathleen volunteer their time every year to run the camp. Each year is based on funding from US Fish and Wildlife Service but they don't sustain administrative costs. They only spend the money directly on program needs. They have strong partnerships with the Tanana Tribal Council, US Fish and Wildlife, Yukon River Drainage Fisheries Association, Huslia, the Tanana

City School District, and the community of Tanana.

Each year Stan and Kathleen report to the community, US Fish and Wildlife, Yukon River Drainage Fisheries Association and the local school. Students from the camp also report on their experience, lessons learned and knowledge gained.

Native Village of Venetie Tribal Government

Venetie is located on the north side of the Chandalar River, 45 miles northwest of Fort Yukon. The winters are long and harsh and the summers are short but warm. Venetie is comprised largely of descendants of the Neets'ai Gwich'in, and to a lesser extent the Gwichyaa and Dihaii Gwich'in. Subsistence activities are an important part of the local culture. Venetie is heavily dependent on subsistence. Salmon, whitefish, moose, caribou, bear, waterfowl and small game provide meat sources.

Venetie was founded in 1895 by Old Man Roberts who chose Venetie because of its plentiful fish and game. By 1905, Venetie became a settlement of a half a dozen cabins and 25 or 30 residents.

After European contact and the advent of western culture impacting local people, residents of Venetie, Arctic Village, Christian Village and Robert's Fish Camp, worked together to protect their land for subsistence use. In 1943, the Venetie Indian Reservation was established, because of the combined efforts of the villages.

When the Alaska Native Claims Settlement Act (ANCSA) was passed in 1971, Venetie and Arctic Village opted for title to the 1.8 million acres of land in the former Reservation, which they own as tenants in common through the Native Village of Venetie Tribal Government. The Native Village of Venetie Tribal Government (NVVTG), the IRA traditional council, is the land owner of the 1.8 million acre Venetie Indian Reserve. This encompasses the villages of Arctic Village and Venetie. Each village operates and maintains their own village infrastructure, ie... community buildings, water, electric...etc., via a Village council in each site. The village councils are totally independent of NVVTG. But as land owners, NVVTG has land and environmental jurisdiction .

Alternative Energy Projects - Arctic Village and Venetie
*"This is the farthest north Tribally owned Solar Energy System in the world;
 and it works great for 9 months out of the year." Lance Whitwell, NVVTG staff*

The Native Village of Venetie Tribal Government (NVVTG) works to protect the environment with a renewable and alternative energy initiative. This priority was established when NVVTG evaluated the risk of fuel oil transportation and handling. The risk was determined to be very high, leading to alternative energy source problem solving. In order for the solution to be viable, the cost of the alternative energy source had to be economically competitive for the communities.

The alternative energy initiative started in 1999 when the NVVTG came up with the energy program idea. Brian Hirsch from Earth Energy Systems assessed alternatives such as wind, hydro, and solar; and at the same time the EPA was



Youth celebrate the installation of alternative energy project with the chief and community members. Photo by Lance Whitwell.

opening a community challenge grant for renewable energy. They applied for the grant and received the funds to start the solar energy project. NVVTG was able to implement this program as they already had a functioning environmental department that dealt with fuel spills as their top priority. NVVTG Tribal Council hired Lance Whitwell, the utility manager, and electrician for the village of Venetie, to direct the program.

The NVVTG gained permission from the Arctic Village Council and the Venetie Village Council to install 5 kw Solar energy systems in both their community Washeteria buildings, and began to monitor the energy output.

Through the EPA Community Challenge Grant, Venetie and Arctic Village each obtained one stationary solar panel for their washateria. Through the grant project, they monitored the power output for one year. In each village they found that they produced peak production 10 months out of the year. This project took a total of two years to complete; one year to get systems up and one year of monitoring.



A local group of volunteers work to install solar panels for the local washateria. Photo by Lance Whitwell.

After the initial demonstration proved to be viable, NVVTG applied for the Administration for Native Americans (ANA) Sustainable Economic Development (SEDS) grant. They used data from the demonstration project as leverage to get tracking systems and two larger arrays that would follow the sun. They worked with the manufacturer to make 360 degree trackers for them. The larger array was \$18,000. The pay back rate was two years from the system. The washateria in Arctic Village is powered solely by the solar panels, when weather permits. However, Venetie is a bigger facility with dual boilers, lights, washing machines, and dryers. But electrical costs are cut by three-fourths by using solar energy.

The third and present phase of the project is to take a step back and do a more in depth study of energy usage in the communities. This has been funded by a Tribal Energy Grant from the U.S. Dept of Energy/Tribal programs in Golden, Colorado.

In this phase they have been doing village wide energy tracking which includes: Load Profiling of the generators, fuels tracking in the villages to determine exactly where the fuel is being used, power quality monitoring of the distribution lines to determine where and how the line equalization and line loss affects

generating capacity, and to find problem areas to save production costs. NVVTG reviews customer profiles to see who uses the most electricity and determine ways they may be able to reduce usage through energy education, simple electrical repairs, and energy conservation methods. Once this phase is complete they will have a good energy picture of the community, and an accurate and compelling energy profile, to use as leverage to seek funding for deployment of a larger scale Renewable Energy system.

More Energy projects

Arctic Village installed a Waste Oil to Energy Converter (WOTEC) system in their generator facility. This system acts as a used oil blender that generates brand new fuel for anything that burns diesel. This blended fuel has the potential to be cleaner and have a higher British Thermal Unit (BTU) rating with more lubricity. Venetie is still looking into the WOTEC system.

Waste Heat Recovery systems are used in both villages. Venetie utilizes waste heat from the power plant, to provide heat for the washateria. The excess heat goes through a heat exchanger to provide free heat to the washateria. Currently, they only use 300 gallons of fuel a year. For the building heat it is a continuous loop coming off of the cooling system of the generators in the power plant.



Waste heat recovery system in Arctic Village.

Photo by Lance Whitwell.

Solar Combined with Waste heat recovery, and used oil recycling have saved Venetie over 75% on fuel usage in the community washeterias. They have also

produced over 10 Megawatts of solar power in 3 years. This solar energy system project has been so successful that the Alaska Native Tribal Health Consortium (ANTHC) is looking to integrate this system into their projects. They have been featured in the ANTHC Mukluk telegraph newsletter, Solar energy international newsletter, Sandia National labs "Solar Way" publication, And also presented our projects to the USDOE in Golden, Co. As well as presenting our programs at various state-wide conferences in Alaska.

Obstacles

Money, manpower, and training were a few of the obstacles NVVTG faced as they broke the alternative energy trail in the far north. However, with determination to try something others told them wasn't feasible, NVVTG proved solar energy to be a part of the energy solution.

Partners

Venetie Village Council and Arctic Village Council worked closely with NVVTG. The utility companies in both villages fully participated to make the project happen. US Environmental Protection Agency (EPA) Indian General Assistance Program (IGAP) has helped support this work. Venetie and Arctic village have addressed used oil, capacity building, and education. Further, both used oil systems in Venetie and Arctic village are supported by the IGAP grant. The school and the power plant provide used oil for the burner. The US Department of Energy, Administration of Native Americans (ANA), and RuralCap have all supported the alternative energy initiative.

Sustainability of the projects

NVVTG is one of eight Tribes nationally that operate their own Tribal Energy Program. Their innovative approach, consistent funding sources, and strong partnerships keep their program moving forward. They think about the future of the project while working in the present. As NVVTG moves forward with the alternative energy program, they depend more on the Village Councils' cooperation. NVVTG proved the feasibility of the resource and are assessing plans to provide power to the whole village. That will mean handing over the maintenance and operation of it all to the local utility because NVVTG is not in the electric utility business. The goal is to get more participation from the utilities, or try demonstrations of other technologies like solar thermal heating, which would have a direct impact on fuel usage.

The resources, methods, and basic components of the program have been passed on to other tribes in

the area, region, and across the entire state. NVVTG is eager to share successes, challenges, and future plans for the benefit of all of the other tribes in Alaska. No matter where you are in Alaska, the price and availability of fuel is starting to be a major concern for villages and Tribes. As prices increase, more villages will have to start looking into renewable resources to off set those prices. Despite what the State of Alaska may see as alternatives in rural Alaska, (more efficient diesel generators, natural gas, hydro, or large scale wind farms), not all villages are geographically located to access these types of resources. So it is very important to begin looking into what resources you have available to your community. And start planning for what your village is going to do when diesel prices rise above \$5.00 per gallon.



Local remediation for a fuel oil spill near someone's house. Photo by Lance Whitwell.

Gwichyaa Zhee Gwich'in Tribal Government

Gwichyaa Zhee Gwich'in Tribal Government is the federally-recognized tribe in the village of Fort Yukon, located at the confluence of the Yukon River and the Porcupine River. Most residents are Gwich'in Athabascan tribal descendants from the Yukon Flats, Chandalar River, Birch Creek, Black River and Porcupine River. Subsistence is extremely important to the local culture; with multiple generations of people living through long harsh winters, cold, continental arctic air and minimum temperatures usually below 0 degrees Fahrenheit. In the summer, the river runs ice free, the air is warm and the days are long with the midnight sun.

Fort Yukon was a trade center for the Gwich'in Indians when a Canadian outpost was established by Alexander Murray in 1847. The Hudson Bay Company, a British trading company, operated the trading post at Fort Yukon from 1846 until 1869. During that time a mission school was built and Alaska was purchased by the U.S. Fur trading and the Klondike gold rush brought Western economic development into the Yukon Flats. But major epidemics struck Fort Yukon from the 1860s to the 1920s, devastating the native population in the area.

The military built a White Alice radar site and an Air Force Station in the 1950's. This site is no longer used by the military. But the tribe is pushing the military to remove contamination from the land and water left after the based closed.

Tribal Environmental Priorities

The Gwichyaa Zhee Gwich'in Tribal Government has a three point mission in the Environmental Department:

1. To ensure the health and safety of Gwich'in tribal members in relation to hazards inflicted upon the environment
2. Educate tribal members and youth about environmental health hazards of individual and community actions
3. Reduce and prevent the hazards inflicted upon the environment as a whole

The Environmental Director, Vickie Thomas, identified and obtained community approval for the environmental priorities to 1) improve internal capacity, 2) sustain a solid waste program, and 3) achieve pollution prevention through solid and hazardous waste education.

The Work and the Success

Vickie used to see plastic grocery bags blow around the community. As technology improved she watched the old computers stock pile in offices and the school. Used appliances, old clothes, old computer parts, and vehicle skeletons were left in the landfill or around the community with no future destination until Vickie took action. She started an outreach campaign in the community using flyers and Public Service Announcement's to announce the solid and hazardous waste recycling and backhaul program.

Vickie chose to work with C&R Pipe and Steel in Fairbanks for aluminum can recycling. Vickie stockpiles the cans, packages them up and sends them out on an empty charter to Fairbanks. C&R collects the cans from the airport and sends a check to Fort Yukon, paying them 32 cents per pound for the aluminum within three to five days. Vickie involves the youth in this project so the check provided by C&R is an incentive to keep the program going. Further, they collect aluminum tabs from the cans and send them to the Ronald McDonald House of Charities.

Used car batteries, small batteries, used appliances, ink cartridges, and old computers are all items that have been removed from the community. Vickie, along with community members, identified, collected and backhauled these items on barges or empty charter flights. The community rallied behind computer backhaul, sending out a large shipment on the last barge of the season. The education and awareness has taken hold on the community; they save ink cartridges boxes to mail empty cartridges back to the company for proper recycling. Over this past year, they collected 15 old refrigerators and freezers but the Freon needs to be removed from the units before they are backhauled. Vickie plans to bring out technical support to



Transfer Station in Fort Yukon. Photo by Matt Hage.

remove Freon and train local people for future Freon removal work.

Fort Yukon also runs a recycling program on site for used oil. In 2001, the tribe received a used oil burner from the Alaska Native Health Board. They use it for energy in local buildings. Residents dispose of their used oil directly into the burner and the utility companies deliver large quantities of oil to the drop off location without charge. The used oil burner doesn't burn as much oil as they thought it would but it does the job of redirecting hazardous waste from the landfill.

A Youth clothing store serves a dual purpose in the village of Fort Yukon. It provides a place to collect used clothing and a forum for environmental education with youth. Everyday Harold Warner, the Solid Waste Technician, opens up the Youth clothing store. Vickie uses this opportunity to make presentations and deliver solid and hazardous education to the youth. She finds this a very effective way to reach out to the youth and extend the education back to the home for the adults.

On June 10, 2003, the City of Fort Yukon adopted an ordinance to ban plastic bags. The tribe helped kick off the ordinance by buying canvas bags for people. To this day they still receive requests for canvas bags and work to fill them. Vickie says you hardly see plastic bags around anymore.

Obstacles

Sorting and separating garbage is a lifestyle change, one that takes time for a community to embrace and know as routine. Vickie identified this as a challenge in Fort Yukon and plans to continue with her education program, youth presentations,



Clothing is dropped off and recycled by community members in Fort Yukon. Photo by Matt Hage.

and spring clean ups in order to make separation of trash more of the everyday routine. However, open burning is an issue in the community. The city is planning to draft an ordinance to prohibit burning. Vickie worked to stop burning of tires and now residents use them to plant flowers. Fort Yukon still has trash on the road so Vickie is looking for empty 50 gallon barrels to provide more trash barrels along side the road for residents to use.

There is a collection of unidentified waste in a conex container that needs to be properly disposed. The YRITWC is going to work with Vickie to help address this challenge and remove the waste. She is also working on a solid waste management plan to address current and future solid and hazardous waste disposal options.

Finally, Gwichyaa Zhee Gwich'in Tribal Government experiences rapid staff turn over in the tribal office. Vickie as seen many Tribal Administrators go through the

office, which fragments institutional knowledge and continuity for staff.

Sustainability

Diverse partnerships provide a broad base of support for the tribal environmental program that includes: The Tribe, the City of Fort Yukon, Council of Athabascan Tribal Governments (CATG), GC utilities, A&C, the School and the Yukon River Inter-Tribal Watershed Council. Gwichyaa Zhee Gwich'in Tribal Government is also partnered with surrounding villages and Tanana Chiefs Council in a solid waste working group and hopes to partner with DEC and EPA in the future.

Along with partnerships comes funding. Vickie receives funding from the EPA IGAP program and incentive checks from A&C for the youth solid waste program. She is looking for funding to address open dump clean up and to develop a new site for a landfill in partnership with the City of Fort Yukon.



Used battery and waste oil collection is managed by Vicki Thomas, the Gwichyaa Zhee Gwich'in Tribal Environmental Coordinator. Photo by Matt Hage.

Village Contact Information

Thank you to the Tribal Councils who participated in this project

Yupit of Andreafski
Serena Alstrom, EPA Director
PO Box 88
St. Mary's, AK 99658
phone (907) 438-2312 fax 438-2512
e-mail: alstrom_epadirector@hotmail.com

Anvik Tribal Council
Mike Grundberg, Environmental Coordinator
PO Box 10
Anvik, AK 99558
phone (907) 663-6323 fax 663-6357
e-mail: mrganbik@hotmail.com

Louden Tribal Council
First Chief Peter Captain Sr.
PO Box 244
Galena, AK 99741
phone (907) 656-1711 fax 656-1716

Gwichyaa Zhee Gwich'in Tribal Government
Vickie Thomas, Environmental Director
PO Box 126
Fort Yukon, AK 99740
phone (907) 662-2581 x109 fax 662-2222
e-mail: vickiethomas99@hotmail.com

Iqurmiut Tribal Council
Anastasia Larson, Environmental Coordinator
PO Box 9
Russian Mission, AK 99657
phone (907) 584-5621 fax 584-5030
e-mail: mat.alarson@starband.net

Nulato Tribal Council
Shirley Kriska, Environmental Coordinator
PO Box 65049
Nulato, AK 99765
phone (907) 898-2341 fax 898-2207
e-mail: nulatotribe@mosquitonet.com

Tanana Tribal Council
Kathleen Peter-Zuray, Environmental Coordinator
PO Box 77130
Tanana, AK 99777
phone (907) 366-7160 fax 366-7195
e-mail: kpzuray@yahoo.com

Native Village of Venetie Tribal Government
Lance Whitwell, Environmental Manager
Tribal Energy Programs
PO Box 99
Venetie, AK 99781
phone 907-849-8165 fax 849-8097
lancewhitwell@yahoo.com



Yukon River Inter-River Inter Tribal Watershed Council

815 2nd Ave., Suite 201
Fairbanks, AK 99701

phone (907) 451-2530 fax 451-2534

www.yritwc.com