

— YRITWC —

# E-CURRENTS

2022 SPRING AND SUMMER EDITION

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## ● ● ● FROM THE AK EXECUTIVE DIRECTOR ● ● ●

Spring has passed and summer has reached the Yukon River Watershed. The Watershed Council staff are in the midst of its summer field season. Making trips within the regions to conduct scientific monitoring and sampling and other science efforts including erosion monitoring in Beaver and Huslia. A brownfield assessment is being completed in Beaver and one is in the works for Alakanuk. Drone and environmental sampling classes were conducted in Fairbanks.

The Watershed Council welcomes Jordan Finney, Lisa Winter, and La'ona Dewilde and says goodbye to Maryann Fidel who resigned and accepted employment with the Alaska Department of Environmental Conservation. We wish her well in her career move and will miss her. The Watershed Council welcomes its summer interns: Leah Shaffer from Missouri, Charlie Thorpe from Wasilla, and welcome back Temyka Ayuluk for her 3rd year. Each of these interns brings a wealth of academic knowledge to the Watershed Council.

Last but not least, we have moved our office in Anchorage this spring. We are now located at 201 East 3rd Avenue. If you are ever in Anchorage, we welcome you to stop by and visit.

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## WELCOME TO THE TEAM!

### INTERNS

I was born in Klamath Falls, Oregon and moved to Owings, Maryland when I was 13. I graduated highschool from Northern High school and then went to University of Alaska Southeast. Where I got a Bachelors in Environmental Science. The activities that I like to do when i am not working are fishing, play video games, hike, and read books



Hi Everyone! My name is Leah Shaffer, and I'm a Ph.D. student at Arizona State University's School of Sustainability. I'm so happy to be interning with the Watershed Council, through the Alaska Conservation Foundation's Ted Smith Conservation Internship Program. I'm looking forward to a summer of traveling throughout the Yukon River Watershed- taking water quality samples, exploring the state, and meeting wonderful people. When I'm not traveling, I'm in the Anchorage office reading about Alaska's water laws and Tribal water rights. My goal for the summer is to put together a guide for different ways to increase the level of protection on the Yukon River Watershed.

I first moved to Alaska after graduating college in 2019, to be an AmeriCorps VISTA. On a one-year contract in Fairbanks, I worked with the Fairbanks Soil and Water Conservation District to support access to locally grown foods. I started my Ph.D. program in August 2020, and now I spend the school year in Arizona and the summer in Alaska. I am interested in researching equitable resource stewardship, and I'm excited to weave what I learn here at the Watershed Council into my future studies and career.

As much as I love hiking and mountain biking in the summer sunshine, I'm a winter girl through and through. I absolutely love to fat tire bike on a snowy single track, cross country ski, and chase the aurora. I can't wait to graduate with my Ph.D. in a few years and move back up to Alaska permanently to start a career in environmental sustainability or natural resource stewardship. I want to use my career to address equity issues and give a voice to those who are often not included in the conversation about how our resources are allocated or protected.



My name is Temyka Qerrataralria Ayuluk and I'm from a Yupik, west-coastal village named Chefornek. I'm majoring in mechanical engineering at the University of Alaska Anchorage. It's my third summer as an intern with the Yukon River Inter-Tribal Watershed Council and I'm very happy to be back seeing new and familiar faces in the office. My hobbies include adventuring out in nature, swimming, camping, drawing/painting, and longboarding. Since starting this season I've attended a handful of presentations from many leaders where I've learned and have been inspired about water protection and why we need to take action here in Alaska. We've got a busy summer, and I'm so ready to be working alongside the YRITWC staff and people within the watershed on many projects such as the BIA Resilience Workshops, the mining project, as well as the ION project. I'm excited to see what this summer brings!

## STAFF



Hello everyone! My name is Lisa Winter, the new environmental scientist with the Yukon River Inter-Tribal Watershed Council. I am excited to begin this new journey alongside an amazing team of professionals. As an environmental scientist, I am looking forward to working directly with the communities of rural Alaska and helping them with water quality concerns. My main focus includes the Indigenous Observation Network (ION) and Indian General Assistance Program (IGAP) by collecting quality environmental data about the land and water. I recently graduated from American Public University with a bachelor's in environmental science. Throughout my studies, I focused primarily on environmental ecosystems management, water/soil management, ecology, biology, environmental laws, regulations, and policies. I am excited to share YRITWC's mission in continuing ongoing efforts to clean up and preserve the Yukon River for current and future generations as a continuation of traditional Native ways of life. While I was born in Wisconsin, I have developed a deep passion for the preservation and conservation of our environment, living here in Alaska has made me realize the importance of preserving the Alaskan Tribal cultures and ways of life. I recently spent four months working and living in Galena, AK and it was then I began to realize the importance of providing clean water in remote areas. I also learned about the unique political, cultural, and environmental circumstances that generate opportunities for collaborative management. I enjoy spending most of my spare time immersed in the great outdoors. Some of my favorite activities include hiking, backpacking, kayaking, mountain biking, caving, rappelling, hunting, and fishing. The longest hike I've ever completed in one day was 31.6 miles in the Grand Canyon. I have also hiked all the trails in the Great Smoky Mountains National Park, 900+ miles.

Hello, I am Jordan Finney. I grew up in Naknek Alaska and did my high school years in Ninilchik Alaska. I graduated from the University of Hawaii at Hilo with a bachelor of science in Environmental Science. I spent my senior year of college working on an indigenous-focused paper connecting science and indigenous knowledge. I'm excited to be working for the Yukon River Inter-Tribal Waters Council and can't wait to see what the future holds!



Laona Rock DeWilde is the new Environmental Scientist at YRITWC. She was raised with her 13 siblings out on the North fork of the Huslia River about 57 air miles from Huslia and without running water, electricity, and grocery stores. She received her Master's in Science at UAF and worked in 2004 and 2005 to develop a watershed-wide monitoring program for the YRITWC. Many careers have been her pathway; serving as a hotshot, smokejumper, crew boss, saw boss, engine boss, and incident commander on fires from 1992 to 2022. She also worked as a real estate agent for several years in Fairbanks. She also is NABCEP certified in photovoltaic systems and has built her own log cabin in the woods outside of Delta Junction and put a solar system on it. She has traveled to every U.S. state and the majority of the villages in Alaska either skiing a race, fighting a forest fire or having a meeting to help the health of the environment. She recently ended a job serving as a leader in wildland fire suppression for the state of Alaska and she is passionate about water quality and the health of the salmon populations and therefore, is excited to put down the chain-saw pick up the water meter and re-engage and work for a healthy watershed.



# GOODBYE YRITWC

Maryann Fidel

I am extremely grateful for my seven years at the Yukon River Inter-Tribal Watershed Council. That time has come to an end. I recently took a job in the Water Quality Monitoring and Assessment with the State of Alaska Department of Environmental Conservation, where I will serve as the Marine Monitoring lead.

It has been such a pleasure to work with you all. You have taught me so much; not to make any assumptions, to build respectful relationships, to go with the flow, to be humble, to be generous, to tuck in my head net, and get the work done. This work has shaped me into a better person.

As part of my work here, and at the request of our leaders, I've built a Drone Program, and a Mining Watchdog Program, and worked on projects to support community resilience. I've been able to spend quality time in your lovely villages and on the Yukon River and tributaries, from the headwaters to the mouth. During my time here we canoed from Eagle to Nulato on the mighty Yukon (over the course of many summers), motor canoed in the Tanana, and Circle Mining Districts, and rafted the incredibly beautiful and wild East Fork of the Tee Drin Jik. Over the years we have documented the impacts of mining, convened community meetings, conducted interviews, assessed contaminated sites, facilitated discussions about community resilience, trained Tribal Environmental Professionals on using drones for environmental monitoring, hosted three Summits, and flown drones for a better look at topography, erosion and water flow. I've secured funding for one of the furthest northern community gardens, and taken the first 3rd party water and soil samples in the Chandalar Mining District. I had the opportunity to speak to Elders who were born on the tundra, during a different era. They told me about overcoming hardship, and how to live a good life. I've learned how to do environmental sampling, grant writing, project management, GIS Online, fly drones, and jump beaver dams. Although I'm far from perfect, my hope is that I have contributed to the effort to protect and preserve clean water in a good way.

I couldn't have done this without all of our hard-working partners and staff; the Tribal Environmental Professionals, our YRITWC Executive Committee, Tribal leadership, and others, who generously guided me, provided advice, and kindly let me know when I was out of line. What a gift to hear at the runway, 'She's with me. Common Maryann', and get whisked away on a 4-wheeler to get to work. But also to enjoy salmon dinners on the banks of the mighty Yukon River, to swim in the waters with the kids, to enjoy moose soup at community meetings, and to hang out around a bonfire while the river rushes by on its eternal journey to the sea. Reflecting on my time here, it is the people that I will miss the most.

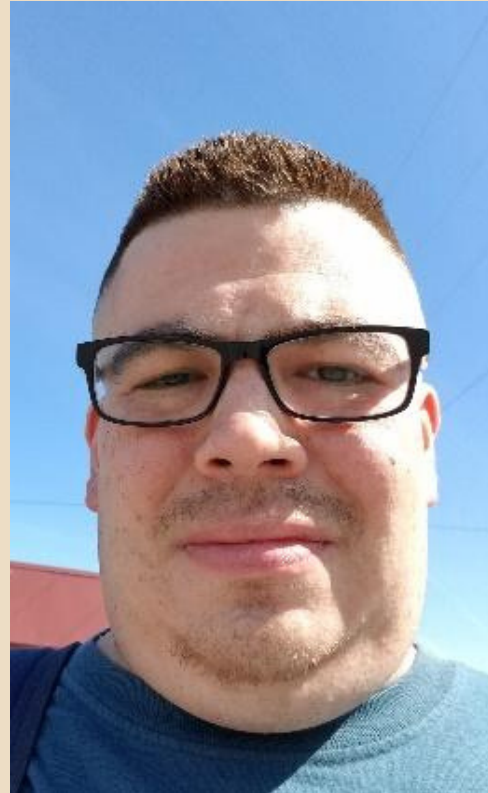
The work that YRITWC does is so important. There is a great team here, and I'm happy to know that the work is in good hands.

In my new role, I will continue to protect and preserve clean water. Know that I am with you in your struggle to claim stewardship of your waters. I am with you in the struggle to keep waters free-flowing, clean, and contaminant-free, for people to drink from, for kids to swim in, for fish to spawn in, and to support all life.

Don't be a stranger. My personal email is [MaryannFidel907@gmail.com](mailto:MaryannFidel907@gmail.com). Thank you YRITWC, and all our partners, especially all the Alaska Native and First Nations peoples that I have had the pleasure to work with. I feel truly blessed to have known you all!



# IGAP SPOTLIGHT



Hello, my name is Nathan Elswick and I serve as the Environmental Director for the Anvik Tribal Council in Anvik Alaska. Anvik is a small Athabaskan village on the Yukon River in the western Interior region of the state. I have served in this position for the past 12+ years managing the Tribes Indian General Assistance Program (IGAP) and our former Brownfield Tribal Response Program. (BTRP) Serving in this role I've gotten to work on many different projects which include: Energy Efficiency, Solid & Hazardous Waste Management, Air Quality, Water Quality, and Climate Change. Doing this work has been very rewarding and has made me have a much deeper respect for the traditional lands that we live on and the importance of keeping them clean and pristine for the next generations to come.

# YRITWC'S IGAP PROGRAM UPDATE – HONORING EARTH DAY EVERY DAY

Kari Young.

Happy summer to you all! As you may know, Earth Day passed us not too long ago in April. I want to remind our IGAP partners throughout the Yukon River Watershed to utilize Earth Day and the summer as a way to conduct outreach and education and to share the environmental work that you are doing for your community! Some suggestions that I have for the IGAP staff to do on making Earth Day every day include:

- Add a "Earth Day Every Day" section into your Tribal newsletter by either writing a piece encouraging readers to make environmental-responsible choices or creating a nature-themed activity page.
- Work with your local school to lead an environmental talk for youth and share environmental education that's important for your community.
- Lead an after-school or weekend environmental outside activity for youth such as picking up trash, doing an upcycled craft, planting flowers for elders, a nature-themed scavenger hunt, or more.
- Have an art contest that shares environmental-friendly messages and share the winning artwork around your community.
- Hold a nature photography photo challenge on your local Facebook page that encourages community members to share pictures they took that display what they love about nature.
- Share a brief 'Earth Day Every Day' message to your community over the VHF radio and remind them of ways that they can recycle and help out the environment.

Those are just a few ideas. Feel free to share with me ways that you encourage environmental stewardship in your community! I, myself, made an 'Earth Day Every Day'-themed activity page (see towards the end of the newsletter) as well as a scavenger hunt that I shared on YRITWC's IGAP listserv. If you are interested in joining YRITWC's IGAP listserv – a monthly-ish email from me that shares opportunities from YRITWC as well as other organizations – please send me an email saying you would like to join: [kyoung@yritwc.org](mailto:kyoung@yritwc.org).

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## BROWNFIELD UPDATES

Hello, I'm Jordan Finney, a new hire in the Brownfields department. I have completed two pieces of training ASTM Phase I and Phase II and Unmanned Aircraft System licenses (drone licenses). With another training coming up to do Water Sampling Workshop to become a certified water sampler. I hope to use all this training to understand brownfields better and work on brownfield sites!



# SNOW DENSITY MEASUREMENTS AND WATER QUALITY SAMPLING

Lisa Winter

As I am still fairly new to the YRITWC organization, some of you have already seen me out and about in several of the communities. I encourage you to say hi, and introduce yourself and I look forward to getting to know y'all as the season progresses. I have really enjoyed getting to know many of you already and look forward to developing more friendships along the way. It's been an exciting season to kick off this year's fieldwork by doing snow density measurements in several areas including Allakaket, Nenana, Fort Yukon, Eagle, Circle, and Hess Creek. With this past year's heavy snowfall and ice accumulation, the data should be interesting to compare to previous years' data. As spring break up has occurred and we made it through the flood season, many of us including myself have been busy bee collecting water samples. The data that we collect through this project is extremely valuable in developing a better understanding of how water quality is impacted over time by climate changes and environmental factors. If you have any concerns about the water quality in your community I encourage you to reach out to us and we can help you have any questions. I look forward to another great season with y'all!

Who carries out water operations? Sturgeons

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## EROSION PROJECTS IN HUSLIA AND BEAVER

Lisa Winter

This spring we have kicked off the beginning of a 5 year study on river bank erosion in Huslia and Beaver. The project encompasses several organizations working together including Tribal Government, YRITWC, University of Southern California, and CalTech. Together we hope to form action groups within each community with members who will participate in adaptation strategies as well as form effective policies for river bank erosion. Our goal is to build partnerships within the communities for integrative planning workshops and assisting with social well-being. By providing communities with fundamental applied science through community engagement we hope to develop the capacity for planning and adapting to riverbank erosion and the consequences of these changes.

Three goals for this project;

- 1.) How will riverbank erosion affect the arctic community's infrastructure, river access, and navigation?
- 2.) How does riverbank erosion into permafrost affect water quality by changing microbial ecosystems, mobilizing sediment, and releasing metals, and other chemicals/contaminants of concern for humans and ecosystem health?
- 3.) What policy priorities will contribute to increasing adaptive capacity in the Yukon River basin, in the context of river bank erosion threats to water quality.

I hope to keep everyone updated as the project progresses and look forward to forming community action groups in Huslia and Beaver?

# ARCTIC RIVERS PROJECT: YUKON RIVER BASIN COMMUNITIES COLLABORATE TO COLLECT HYDROLOGIC DATA!

Guest piece:

Nicole Herman-Mercer - USGS

The YRITWC and Yukon River Basin communities are key collaborators in the Arctic Rivers Project – a five-year project funded by the National Science Foundation’s Navigating the New Arctic Program and led by the University of Colorado, Boulder, and the National Center for Atmospheric Research. Other collaborators include the U.S. Geological Survey, the Institute for Tribal Environmental Professionals, the University of Saskatchewan, and the University of Waterloo. This collaborative team seeks to answer the question, “How will societally important fish habitat and river ice transportation corridors along Arctic Rivers be impacted by climate change?” by combining water data, community narratives, and computer modeling.

The temperature and chemical make-up of water can determine how much ice a river has and be important for fish health. Across the watershed communities have been working with YRITWC Science Director, Edda Mutter, to install water sensors that continuously collect temperature and data and the quality of water called conductance. Conductance tells us how much electricity the water can transmit and allows us to infer the chemical make-up of the water, such as the salt content. Although we were unable to install sensors in 2020 due to the COVID-19 pandemic, the project is going strong in 2022, the second year of sensor installation. In 2021, sensors were installed in communities, and have continued to be installed in 2022. The information we gain from these sensors will allow us to understand how ice and fish may react to future climate conditions. From these data, models, and the knowledge of communities across the watershed we will develop products such as websites, databases, webinars, and reports for communities that describe what we learn.

We want to acknowledge and thank Edda Mutter and all of the watershed heroes who have been working with Edda so far this summer to install these water sensors in their communities: Nathan Elswick – Anvik, Alaska; Eric Alstrom – St. Mary’s, Alaska; Augusta and Ted – Allakanuk, Alaska; Candice McDonalds and Crystal Bergman – Allakaket, Alaska; Vanessa Edwards – Alatna, Alaska; Bruce Thomas – Fort Yukon, Alaska; Steve Robbins – Eagle, Alaska; Kate Andre, Obe, and Darren – Carcross Tagish, Yukon Territory

# INTERNS TRIPS THIS SUMMER

I landed in Fairbanks on Tuesday the 21st of June. The plan was to travel to Minto that day to take two samples of The Tolovana River. There I got to see an amazing place that was beautiful and cool. It was so filled with life-like Moose, ducks, and swans it was amazing. I even got to see this year's moose calves swimming with their mothers. It definitely redefined my image of interior Alaska. We then headed up north and pass the Yukon river. We decided to camp alongside the road just north of the Yukon River. Then we got up and packed up camp and then headed south while planning to sample four creeks along the way. The first one was the Yukon River at the Yukon River Remote Camp. The next creek was Hess Creek which was very stunning and had swarms of mosquitos that were very hungry. Then we sample another part of the Tolovana River and this section was smaller than the other ones which were surprising. The fourth and final sample was the Tatalina River. Overall, this trip was eye-opening and will help me in developing useful and accurate maps for my projects.

Charlie - Charlotte Martin Intern



This past June, Leah and I went to Tanana for a three-day trip. While there, we collected five water samples for two different projects. We were also kept busy with zoom training and staying in a place Leah and I have never been to before. I was excited to see what Tanana was like. I've seen it on maps and heard people mention the name in conversations. The day we went out to collect samples at Fish Lake, American Creek, and around the Tanana/Yukon confluence was a beautiful day. We saw moose (cow and calf, a couple of bulls), golden eagles, many birds, and beaver houses. Curtis and Clarence drove the boat, and they were very knowledgeable in traversing the waters, too. They maneuvered the boat through logs blocking the waterway which was somewhat of a different scene for me. The marshy area that the creek ran through was so amazing to see and travel through, and we were lucky enough to have a sunny day in the second half of the trip. Altogether, the 7 hours on the water were a success.

Leah and Temyka

# ACTIVITY PAGE

Celebrating Earth Day Every Day

## Nature Scavenger Hunt

For all ages and families:

Go outside and find the following. Take a picture or draw what you find and share at least one picture/artwork with a friend, family member, or on social media!

- A natural water source
- A plant that can be used traditionally for medicine
- Trash that you're going to pick up & throw away or recycle
- Your view when you look up
- Something in nature that is colorful
- Something a bird would use when creating their nest
- Something in nature that makes a crunching noise
- Something in nature that you are grateful for

## Did you know?

April 22nd is also Gwich'in Day!  
It's a day to celebrate the Gwich'in peoples and the signing of the Gwich'in Comprehensive Land Claim Agreement, which happened 30 years ago.

## Trivia

Test your knowledge about Earth Day. Answers can be found at the bottom of the page.

1. The first Earth Day led to the passage of \_\_\_\_\_?  
A) The creation of the EPA      B) The Clean Water Act  
C) The Clean Air Act Extension      D) All of the above
2. How much of the world's water is available for human use?  
A) Less than 1%      B) 3%  
C) 23%      D) 75%
3. What year was the first Earth Day first celebrated?  
A) 1958      B) 1965  
C) 1970      D) 1974
4. Approximately, how many people participate in Earth Day each year?  
A) 1 Billion      B) 500 Million  
C) 2 Billion      D) 3 Billion
5. What is one way you can honor Earth this year?  
\_\_\_\_\_