

# Circle Speaker

JULY-SEPTEMBER, 2024

Aaniiih & Nakoda Environmental Newsletter

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There are around 3,000 well, mostly natural gas, on the Southern Ute Indian Tribe's reservation. Minor sources of air pollution and oil and gas permits will now be regulated by the tribe, rather than the Environmental Protection Agency under the terms of a delegation agreement signed June 11. (Jerry McBride/Durango Herald file)

## Southern Utes take federal regulatory authority of minor air pollution sources

**Tribe is first in the nation to do so, EPA official says**

By Reuben M. Schafir Herald Staff Writer [rschafir@durangoherald.com](mailto:rschafir@durangoherald.com) | Sunday, Jul 14, 2024 5:00 AM. Updated Monday, Jul. 15, 2024 6:39 PM

<https://www.durangoherald.com/articles/southern-utes-take-federal-regulatory-authority-of-minor-air-pollution-sources/>

In a move that highlights the fickle nature of tribal sovereignty, the Southern Ute Indian Tribe has taken over administrative authority of two more permit programs established in the Clean Air Act.

The SUIT is the only tribe in the country to regulate major sources of air pollution, air toxics and, now, minor emitters, said Kyle Olson, tribal air coordinator

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## Southern Utes take federal regulatory authority of minor air pollution sources

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with Region 8 of the Environmental Protection Agency.

Minor pollution sources are generally those that emit under 10 tons of a hazardous air pollutant annually.

Under terms of a historic agreement, the EPA has delegated administration of the Federal Minor New Source Review program and regulation of emissions from minor sources relating to natural gas and oil production and processing to the tribe.

The agreement gives the Southern Utes the power to regulate emitters such as gas stations and dry cleaners, although natural gas producers will be the primary applicants.

The EPA delegates regulatory authority of many federally mandated programs to local authorities. The Colorado Department of Public Health and Environment, for example, is responsible for implementing both the Clean Air Act and the Clean Water Act in the state.

However, the EPA itself often implements regulatory statutes on lands governed by otherwise sovereign tribes that may not have the capacity to enforce the policies themselves.

By taking grasp of additional regulatory levers, the tribe is enhancing the degree of self-governance, Olson said, and leveling the economic playing field for permittees.

Southern Ute Indian Tribe officials were out of the office last week and unavailable for comment.

“It wasn't until 2011 the EPA finally passed a regulation that brought oversight over minor sources on reservations into existence,” Olson explained. “Prior to 2011, minor sources on reservations didn't need any sort of federal permit and so EPA was just trying to catch up.”

Given the relatively light footprint of minor sources,

regulating them was not a top priority. Regions with an active oil and gas industry is the exception, Olson said, in that numerous extraction sites over an area can produce significant air pollution.

There are around 3,000 wells, mostly natural gas, on the SUIT reservation.

Upon passage of the 2011 regulation, the tribe immediately set out to retain administrative authority. The tribal Air Quality Division took control over Title V, or major permits, in 2012. The division is now a robust regulatory agency.

It wasn't until 2020 that the tribe requested authority over minor source review and oil and gas.

“No tribe had ever taken this on before and so we took a little bit of time to make sure we got it right,” Olson said.

The agreement was finalized June 11.

Unlike with the other federal programs, the EPA will retain enforcement of minor source permits, although the agency will do so in conversation with tribal officials.

Olson said he expects the shift to be a boon for air quality and permittees, who will receive more consistent oversight from inspectors who can easily access emitting sites. EPA inspectors based in the Denver office cannot make the trip to the reservation as frequently as they should.

“No state or tribe really wants the federal government showing up and telling them how to do what they need to do,” Olson said. “The (SUIT) has already shown they can run the show for the big dogs – the major sources and air toxics. The EPA's mission is to protect human health and the environment. This sort of puts that into their hand and says ‘this is your environment.’”

**HAPPY BIRTHDAY**



Walt Badroad Mount, Mitchell Healy & Adrian Kulbeck (all celebrated in July) and Jeremy Walker (celebrated in September)

# Introducing the Tribal TAB Team

From: Tribal TAB <tribal-tab@ksu.edu>



As we shared in our previous message, Tribal TAB is back, new, and more robust! And one of the most inspiring aspects of the new Tribal TAB is that it is now an unprecedented collaborative partnership between **Kansas State University (KSU)**, the **Alaska Native Tribal Health Consortium (ANTHC)**, and the **Institute for Tribal Environmental Professionals (ITEP)**. So, we'd like to take this opportunity to introduce the core Tribal TAB team. As the group grows, we will share more from the broader circle.



**Oral Saulters** is with KSU and is one of the Co-Directors of Tribal TAB. Always bringing new perspectives and connections while honoring the longstanding, Oral acts as a bridge between ideas, cultures, and worlds. He recognizes that it is the Tribal communities and environmental professionals themselves that lead; and his role is to actively listen, gently guide when helpful, and then quietly get out of the way. He is excited to be part of something this beautiful as we generate success in a good way together.

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**Jennifer Clancey**, the other Co-Director of Tribal TAB, has been with KSU since 2019. With a passion for and a life rooted in music and art, she is always inspired by the role they play in telling our stories, nurturing relationships, and creating community. Jen is honored to be able to partner with Oral, Todd, Julie, and Bailey and be part of this fantastic Tribal TAB team. And she is so excited about partnering with Tribal communities to bring visions to reality.

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**Todd Barnell** joined ITEP in 2002 and manages their Waste & Response programs. He's thrilled to be part of this new and passionate team, and to work with all of you on the front lines who are building a cleaner, healthier future for Native nations and communities, and all our relations.

communities, and all our relations.



**Julie Meikowski** joined the ITEP Waste & Response program in 2014 and is the Assistant Manager. She works on all of their many projects, including collaborating with the TWAR SC and TSWFG. She loves not only helping her Tribal colleagues, but also

creating strong relationships that help us all build a better world. She is very excited to be part of this new Tribal TAB team and partnering with Tribes to clean up and renew current brownfields.



**Bailey Richards** has worked in the ANTHC Contaminated Sites Program for over seven years. Born and raised in Alaska, she is passionate about protecting Alaska's unique natural environment and ensuring its communities are healthy, sustainable places to live. Bailey is very excited to use Tribal TAB as an opportunity to learn more about how Tribes are addressing brownfield sites throughout the nation, and to help facilitate brownfields knowledge sharing between Alaska and the rest of the United States.

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If you would like to learn more about Tribal TAB or share suggestions, please join the official Tribal TAB listserv ([https://memphis.co1.qualtrics.com/jfe/form/SV\\_6gsfnRsS4Lub4Q6](https://memphis.co1.qualtrics.com/jfe/form/SV_6gsfnRsS4Lub4Q6)), if you haven't already done so. And if you would like to learn how we may be able to assist you and your community, please email us at [Tribal-TAB@ksu.edu](mailto:Tribal-TAB@ksu.edu).

We look forward to connecting with you!

## The Tribal TAB Team

- Oral & Jennifer (KSU); Todd & Julie (ITEP); and Bailey (ANTHC)

**KANSAS STATE UNIVERSITY**



**ALASKA NATIVE TRIBAL HEALTH CONSORTIUM**



## Updates

# Fort Belknap Environmental Department Brownfields Projects

By Adrian Kulbeck, Brownfields Coordinator

Fort Belknap Indian Community (FBIC) Tribal Response Program has been working on multiple Brownfield projects. Brownfields are abandoned, vacant, and/or unused sites that have been or are potentially contaminated from previous uses. FBIC Tribal Response Program understands that redeveloping brownfields improves public health by cleaning up contamination, turns former blight into new opportunity and saves our undisturbed land from development. These projects include:

### Runway Homes:

Fort Belknap's Brownfields Tribal Response Program was awarded Infrastructure Investment and Jobs Act (IIJA)/Bipartisan Infrastructure Law (BIL) back in 2022 and took this opportunity to address multiple brownfield sites including the homes located on the runway southwest of Fort Belknap Agency. FBIC acquired 30 homes from the Malmstrom Air Force Base in Great Falls, MT. FBIC has stored the homes on its existing runway since acquisition back in 2013, since then 27 homes have burned, and the remaining ash and debris remained on the runway. At the time the clean-up began, only three homes remain intact and multiple debris piles were left from the burnt homes. Granite Peak Environmental oversaw the removal and disposal of all contaminants to ensure the clean-up was completed in accordance with the EPA approved cleanup plans and all state, federal, and tribal regulations. On August 21, 2024 Fort Belknap's Brownfields program, contractor and sub-contractors

visually inspected and approved that aspect of the Clean-up. Expected to have Cleanup finalized by October 30, 2024.

### Sacred Heart Church:

Also known as the Pink Church, the two-story, 3,322 square foot building is located on the main highway through Fort Belknap Agency and the Reservation. The Fort Belknap Indian Community would like to restore and preserve the Sacred Heart Catholic Church as a historically significant site. The site is located at 5015 US Highway 2, 3-miles east of Harlem, Montana, on the Fort Belknap Indian Reservation. The tribes' current plans are to restore the building and enclose the building entryway in plexiglass to offer views into the Church while restricting access to the rest of the building. The objective of abatement/cleanup is to safely remove and properly dispose of the Asbestos Containing Building Materials (ACBMs), Lead Based Paint (LBP), and pigeon guano associated with the building without unacceptable risk of exposure to abatement workers and the public **NEED FOR CLEANUP:** Asbestos Containing Building Material (ACBM), Lead Based paint (LBP), Lead in soils, and Pigeon guano.

### Old Lodge Pole School:

The former single-story elementary school, located in Lodge Pole, was built in 1957 and operated until

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## Fort Belknap Environmental Department Brownfields Projects

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2004, when a new school was constructed. FBIC would like to renovate the school building. The objective of abatement/cleanup is to safely remove and properly dispose of the ACBMs, LBP, lead in soil, pigeon guano, mold, and Polychlorinated Biphenyls (PCBs) associated with the buildings without unacceptable risk of exposure to abatement workers and the public. NEED FOR CLEANUP: Asbestos Containing Building Material (ACBM), Lead Based paint (LBP), Lead in soils, Pigeon guano, Animal Infestation, Mold, universal waste, and Polychlorinated Biphenyls (PCBs).

### Old Agency Dump:

The 24-acre site is located one mile southwest of Fort Belknap Agency and contains no permanent structures. The Agency Dump reportedly operated on the site from the 1970s to the mid-1980s and received a variety of wastes dumped by residents, tribal entities, Indian Health Service (IHS), and Bureau of Indian Affairs (BIA). FBIC would like to clean up and redevelop the property into a solar power generating facility to provide power to the proposed Eagle Valley Estates housing development, which is proposed north of the former dump. The objective of cleanup is to remove and properly dispose of surface soils impacted by Pentachlorophenol (PCP) and Di(2-ethylhexyl) phthalate (DEHP), disposing of these soils at a Class II landfill. The site is located southwest of Fort Belknap Agency, Fort Belknap Indian Reservation, Montana. NEED FOR CLEANUP: If PCP and DEHP contaminated soils are not removed before site is redeveloped, there is a direct contact risk for construction workers and future commercial users of the site.

### Old water Treatment plant:

The former single-story treatment plant, located in Fort Belknap Agency, was constructed in 1973 to pro-

vide domestic drinking water to the surrounding community. The plant was closed in 2010 when a new water treatment plant was constructed. The objective of abatement/cleanup is to safely remove and properly dispose of the ACBMs, pigeon guano, chemical containers, and PCBs associated with the buildings without unacceptable risk of exposure to abatement workers and the public. NEED FOR CLEANUP: Asbestos Containing Building Material (ACBM), Pigeon Guano, Chemical containers, Universal wastes.

### Facilitated Training/ Community outreach

Fort Belknap's Environmental Protection Department's (FBEPD) Tribal Response Program has been actively hosting and attending trainings. The Brownfields Tribal Response Program hosted a 40-hour HAZWOPER training in 2023. The 40-hour HAZWOPER training certification covers 40 hours of workplace health and safety topics. The provisions and the goal of the course was to educate FBIC workers on subjects like choosing and using appropriate approach when responding to hazardous chemicals/events, chemical properties and proper Personal Protective Equipment (PPE). FBEPD Tribal Response Program also collaborated with Fort Peck on a 3-day "Meth 101 training" this past June 10-12, 2024. The intent of this training was for us to gain in-depth knowledge on how to assess a meth contaminated area and choosing and using/taking the appropriate actions when responding.

FBIC and the Qualified Environmental Professional (QEP) has held multiple public meetings on the Brownfield projects. This allows for the community and its member to weigh in on the clean-up and redevelopment of the site which are typically advertised in the local newspaper and radio stations and via project information on our tribal website <https://ftbelknap.org/>.



A black-footed ferret peeks out of its den to enjoy a starry night on the prairie. Photo Courtesy of John Ashley.

## The black-footed ferret's attempted comebacks in Montana

By James Taurman-Aldrich Reporter | Jul 5, 2024

[https://www.lewistownnews.com/news/the-black-footed-ferrets-attempted-comebacks-in-montana/article\\_eb02fe7c-38b3-11ef-bad5-977250fdd00c.html](https://www.lewistownnews.com/news/the-black-footed-ferrets-attempted-comebacks-in-montana/article_eb02fe7c-38b3-11ef-bad5-977250fdd00c.html)

While grizzly bears roam Montana as a well-known threatened species, a little endangered creature navigates underground tunnels, dodging predators and plague, as it fights to stay alive.

Black-footed ferrets, known scientifically as *Mustela nigripes*, were not once, but twice thought to have gone extinct, first in the late 1950s then again in 1979 after the final ferret in captivity died. However, in 1981, a dog named Shep brought one home to his owners in Meeteetse, Wyoming, taking the species from extinct to endangered. Now, according to the National Black-Footed Ferret Conservation Center in Carr, Colorado, there are approximately 280 ferrets in captive breeding facilities, and around 200 – 300 in the wild, per the U.S. Bureau of Land Management.

In their heyday, as many as five million black-footed ferrets occupied land from Canada to Mexico. The 18-24-inch long mammal can be recognized by not only the black feet, but also the Teenage Mutant Ninja Turtle-esque mask around its eyes.

The first efforts at reintroducing black-footed ferrets in Montana took place in at the Charles Russel Wildlife Refuge (CMR) in 1994. Following the 1994 reintroduction, ferrets were released on BLM lands in Phillips County, at the Fort Belknap, Northern Chey-

enne and, most recently, Crow Reservations.

Randy Matchett, a biologist with the Fish and Wildlife Service, knows of very few wild ferrets remaining in Big Sky Country.

“Over the next 25 years [after the 1994 reintroduction], a grand total of 255 kits were released and we observed a minimum of 328 wild-born kits,” Matchett said. “After 25 years, the entire population (at the CMR) died out in 2018.”

For black-Footed Ferrets to survive, they need an abundance of prairie dogs to eat, but in the mid-1900s, rats and fleas brought sylvatic plague to the Great Plains. The plague eventually found prairie dog colonies and took enough of a toll on the population to almost wipe out ferrets in the US.

“The only place they can live is on prairie dog colonies,” Matchett explained. “Early in 2018, we lost about 70% of those acres of prairie dogs. We went from 1,800 acres in the fourth-largest ferret population in the world to 600 acres in 2018. Plague came out again in 2020, and we were down to 365 acres. Last summer, it was at 279 acres.”

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## The black-footed ferret's attempted comebacks in Montana

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BFF Dude, a black-footed ferret, licks his nose following a presentation at the American Prairie Reserve National Discovery Center last month. James Tauman-Aldrich Reporter.

### A third comeback?

Not all hope is lost, however, for the black-footed Ferret in Montana. While a 2017 drought possibly dealt the final blow to populations on the Northern Cheyenne Reservation, it is believed that around 30 ferrets live in Fort Belknap, while 10 hunker down on the Crow Reservation.

“They’re the world’s rarest mammals, and as of this last spring, there’s probably less than 300 in the wild,” Matchett explained. “About half of those are at one site in South Dakota at Badlands National Park and Conata Basin.”

The National Park Service estimates there to be 120 black-footed ferrets in the Badlands, with 80 of them being in the Conata Basin, where a total of 147 ferrets were reintroduced between 1996 – 1999. Unlike in Montana, the South Dakotan population did well, allowing for the relocation of 33 ferrets to Wind Cave National Park, where about 60 ferrets live today.

While such population growth in South Dakota sounds promising, black-footed ferrets are far from being safe from extinction.

Fish and Wildlife Services documents state, “Delisting criteria include at least 3,000 free-ranging breeding adults in 30 or more populations, in at least 9 of 12 States in the species’ historical range.”

The number of black-footed ferrets in the native range hasn’t even approached 3,000 since, even before they were first thought to be extinct. Total ferret population in Central Montana will also likely stay

near zero as there are no further reintroduction plans due to the lack of prairie dogs in the area.

There will, however, be at least one ferret in Fergus County soon. During a presentation at the American Prairie National Discovery Center on June 22, it was announced that the Discovery Center is working with the National Black-Footed Ferret Conservation Center to have a live ferret on display for educational purposes. There is no set date for when Lewistown’s newest ambassador of the species will arrive.



Randy Matchett, a biologist with Fish & Wildlife Services, is involved with all black-footed ferret recovery efforts in Montana. He’s also worked on recovery internationally during his 30+ year career. Photo courtesy of John Ashley.

For more information about black-footed ferrets on the Fort Belknap Indian Reservation, visit the links below:



<https://www.youtube.com/watch?v=a2dNuQQl90I>  
<https://www.worldwildlife.org/species/black-footed-ferret>

# Climate Change Program Highlights

By Dennis Longknife, Jr., Climate Change Coordinator



Hello Climate Change Warriors! I am back at the helm, after a lengthy illness that has kept me bedridden for most of the summer, and my recent diagnosis of cancer, which I am continuing to fight.

As Summer gives way to Fall, our Climate Change Program staff has been busy, as my Climate Change Education and Outreach Assistant, Austin After Buffalo, has been working on one of our climate projects, which is funded by the Climate Adaptation Science Center, and administered through Jennifer Thomson, Professor of Environmental Science and Sustainability, at the University of Montana. For part of the summer, we also had Katelyn Goes Ahead, an Aaniiih Nakoda College student, assisting Austin with native plant selection and identification in the field. Photos show Austin and Katelyn selecting sites, and other photos show Austin using a 1 meter transect square, tape measure and a flag pin, to identify plants in the study area. The main tasks are to complete ten (10) native plant transects within the Little Rocky Mountains, and to collect elder interviews, so when they are not in the field, they are conducting interviews in our communities within the reservation.



The elder interviews capture Indigenous Knowledge, on what our elders have seen in their lifetime from the impacts from climate change, to our ways of life, also called Traditional Ecological Knowledge (TEK).

## MONTANA NATIVE PLANT SOCIETY CONSERVATION STRATEGY 2024

For the past winter and this spring I was invited to participate in contributing my native plant knowledge, into a statewide effort organized by Andrea Pipp, Botanist for the Montana Audubon, including plant specialists and botanists throughout the state, and eth-

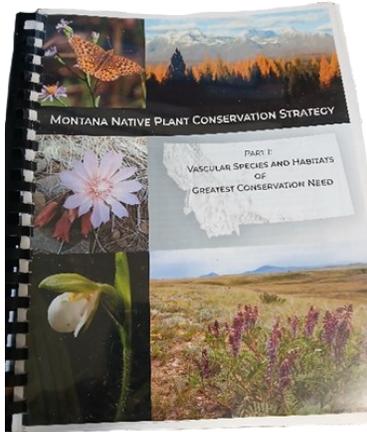


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## Climate Change Program Highlights

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nobotanists and native plant knowledge keepers, from other tribes, who also contributed their knowledge. In August 2024, the Montana Native Plant Society Conservation Plan was completed, thanks in large part to Andrea Pipp.



### THE LITTLE ROCKY FOREST RESILIENCE PROJECT (LRFR) has been completed!

In 2020, we partnered with the Center for Large Landscape Conservation (CLLC), based in Bozeman, Montana, on a Wildlife Conservation Society grant, to work on a Forest Health Project, we call the Little Rocky Forest Resilience Project (LRFR).

We collaborated with the Bureau of Indian Affairs (BIA) Forestry Program here in Fort Belknap, and Chester Gladstone, Forester. Chet was very instrumental in managing the project and in the field, to get the thinning completed, using contract forest crew, called Westslope. They completed the LRFR Project last fall by thinning 100 acres using a Forestry Contract Crew, which also included training ten (10) tribal members in chainsaws.

This year we worked with the CLLC again and secured funding from the National Fish and Wildlife Foundation (NFWF), to thin an additional 200 acres, using the same Forestry contract crew. In July 2024, the LRFR Phase II Project was completed, in all we thinned 300 acres.



Chet explains that “the LRFR Project’s main goal is to improve forest health and protection by thinning out

trees that are diseased, deformed, and overcrowded. Large diameter slash will be removed or incinerated. A light layer of small diameter branches will be cut and arranged to facilitate a low intensity ground fire that mimics natural fire. This beneficial fire reduces forest litter, allows more precipitation to reach the soil, and recycles nutrients. New native plant growth will flourish with the increased light, water, and nutrients. Bringing back the cultural aspect of burning that protects the forest from catastrophic wildfires.”



### CLIMATE CHANGE PROGRAM RECEIVES NEW FUNDING

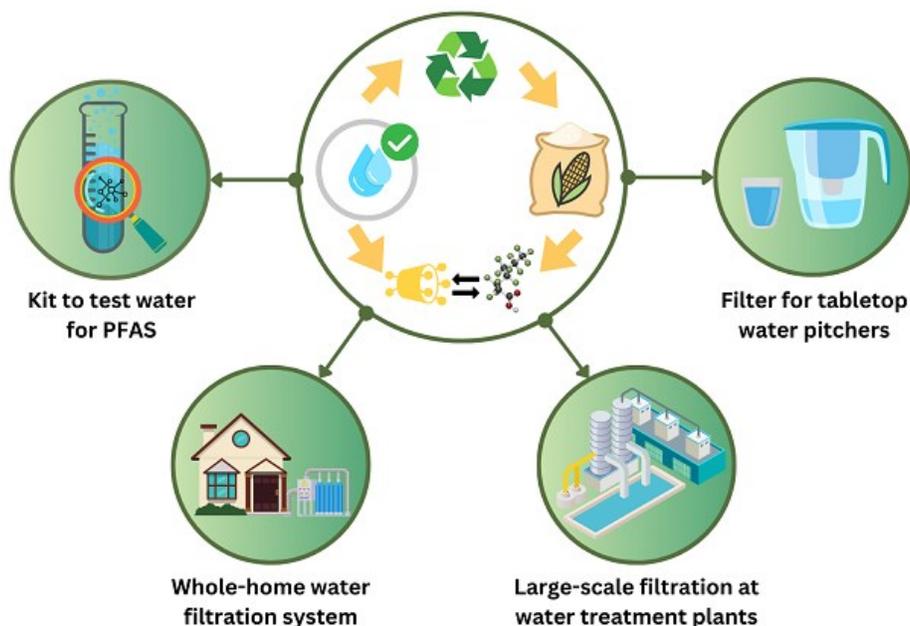
This spring we were the recipients of a \$126,000 BIA, Tribal Climate Resiliency Grant, called Relocation Managed Retreat and Protect in Place Project (RMP).

The funds will be used to initiate meetings within the community, participate in Climate RMP Cohort group meetings, and develop planning guidelines to make our communities more resilient to the impacts to our forests, floodplains and prairies, from wildfires, flooding and drought.



# Sustainable Technology Cleans Up PFAS in Water

[https://www.niehs.nih.gov/research/supported/centers/srp/phi/archives/remediation/cyclopure?utm\\_medium=email&utm\\_source=govdelivery](https://www.niehs.nih.gov/research/supported/centers/srp/phi/archives/remediation/cyclopure?utm_medium=email&utm_source=govdelivery)



An innovative technology, developed with funding from the NIEHS Superfund Research Program, successfully removes PFAS from water. The technology has been adapted to a variety of applications, including tabletop filters, whole-house water filtration systems, and large-scale cleanup projects.

## The Problem

PFAS are a group of nearly 15,000 human-made chemicals used for decades in a variety of industrial and consumer products, such as firefighting foam and food packaging. Due to chemical bonds within the molecules that are hard to split, PFAS resist natural degradation and can accumulate in ecosystems and organisms, exposing people through drinking water, food, and dust. The chemicals have been linked to a variety of health effects, including changes in immune and liver function, obesity, diabetes, certain cancers, and lower birth weights.

Current technologies used to remove contaminants from water, such as activated carbon and ion exchange treatments, do not work well for some PFAS. These approaches also have low molecular selectivity — meaning that they are less effective when other substances besides PFAS are present, which is often the case for contaminated drinking water systems.

## SRP Solutions

Funded by an SRP small business innovation research grant, Cyclopure, Inc., developed a sustainable technology to bind and remove PFAS from drinking water. Their technology is made of cup-shaped cyclodextrins — sugar molecules bound together in small rings — derived from corn starch. At less than a nanometer across, the cyclodextrin cup can rapidly bind and trap a variety of PFAS compounds faster and more efficiently than other filtration materials.

The technology can remove all 40 PFAS targeted in the U.S. Environmental Protection Agency (EPA) PFAS Roadmap and is certified by the National Sanitation Foundation International (NSF) as safe for drinking water treatment.

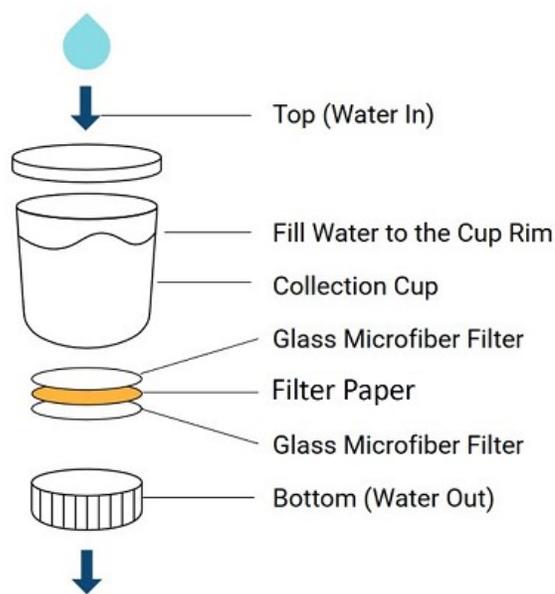


Cyclopure's cyclodextrins, called DEXSORB, have molecular selectivity for PFAS, while avoiding competition by natural organic matter and other chemicals. (Image courtesy of Cyclopure)

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After cyclodextrins trap PFAS molecules, the contaminants can be separated from the cyclodextrins in the laboratory, where the waste is concentrated for safe handling and disposal by destruction technologies without recontamination of the environment. During separation of PFAS waste, the technology undergoes regeneration, allowing reuse of the adsorbent for additional water filtration activities.

In 2022, SRP provided Cyclopure with additional funding to use their technology in developing products that detect PFAS and remove them from water. The new grant allowed the team to pursue PFAS removal solutions for consumer and municipal applications.



The water test kit includes a collection cup with a filter disc between two glass microfiber filters. (Image courtesy of Cyclopure)

### Testing Water for PFAS

Cyclopure developed a kit to test water for PFAS. The kit is listed by NIEHS as a Sensor Technology for the 21st Century.

Their water test kit uses a collection cup with a filter paper made with cyclodextrins that traps PFAS as water flows through it. After collecting a sample, the user returns the kit to the company's laboratory, where it is analyzed for 55 different PFAS compounds. According to Cyclopure, their approach is more cost-effective than currently available technologies and more convenient because the user does not need to ship water samples. Users are sent a detailed report

about their sample, including concentrations of each PFAS detected and location-relevant information, such as state drinking water regulations.

The water test kits have been used to test tap water, rivers, lakes, and streams by consumers, government agencies, research institutions, and environmental groups across the U.S. and abroad. The Colorado Department of Public Health and Environment is using the test kit as part of a program to test the water of residents who rely on private wells for drinking water. The test kits have also been used in Japan, the Netherlands, and Bangladesh.



Each cartridge comes with a prepaid label to return the filter to the lab where the contaminants are safely disposed, and the filters are recycled. (Image courtesy of Cyclopure)

### Treating Home Drinking Water

In 2022, partly funded by the National Science Foundation, Cyclopure developed a filter cartridge that is packed with cyclodextrins to trap and remove PFAS from water. The filter cartridge is compatible with commercial tabletop pitchers and can provide up to 65 gallons of PFAS-free water. The filters remove PFAS to non-detectable levels well below EPA's drinking water limit of 4 parts per trillion.

Families across the U.S. are using the filter cartridges to prevent PFAS exposures from drinking water. Municipalities, including communities in Colorado, have purchased cartridges to provide safe drinking water to households as an interim solution while they prepare for large-scale water treatment systems.

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The company also developed whole-home filter tanks that connect to residential water systems to remove PFAS from tap water throughout the home. Because not every consumer can install a whole-home water filtration system, such as those who rent, an under-the-sink filter that would be more convenient to install and less costly than the whole-home filters is under development.

### Large-Scale Water Treatment

The PFAS-removal capacity of cyclodextrins in large-scale applications is demonstrated through pilot installations across the U.S. These pilots have led to commercial installations to clean up PFAS-contaminated water in:

- Municipal drinking water plants
- Landfills
- Groundwater
- Industrial wastewater

In 2024, the Massachusetts Department of Environmental Protection approved the use of the company's cyclodextrins to remove PFAS from drinking water systems throughout the state. This approval followed 12 months of pilot testing in Newburyport and Lynnfield, Massachusetts, that successfully demonstrated reduction of PFAS in water to nondetectable levels throughout the study period. Additional pilot testing is ongoing at municipal drinking water plants in Maryland, Alabama, and Nevada, with additional installations slated for New Hampshire, Pennsylvania, Georgia, and North Carolina. The company will install a full-scale treatment system in Alaska at the beginning of August 2024.



Water filtration system using cyclodextrins at Biddle Air National Guard Base. (Photo courtesy of Cyclopure)

Also in 2024, Cyclopure began a pilot study to treat

contaminated groundwater with PFAS at the Willow Grove Naval Air Station in Pennsylvania. The team installed a full-scale treatment system at another Department of Defense site in the state, the Biddle Air National Guard Base.

The company has been working with landfill operators in Michigan and Pennsylvania to demonstrate removal of PFAS from landfill leachate. Landfill leachate forms when rainwater filters through wastes placed in a landfill and often contains high concentrations of PFAS leaching from different household goods.

The technology is also being used to remove PFAS from industrial waste streams, with full-scale treatment systems operating at a metal plating plant and petroleum facility.



Cyclopure staff members conduct pilot tests in a landfill leachate treatment plant in Michigan. (Photos courtesy of Cyclopure)

### Lowering Treatment Costs

In a year-long pilot test to remove PFAS from wastewater at a metal plating plant in Michigan, Cyclopure demonstrated that their technology requires less material to clean up water than currently used water treatment methods. Compared to the plant's approach that used 180,000 pounds of activated carbon, Cyclopure was able to accomplish similar performance using 21,000 pounds of cyclodextrins.

"We hope that our technology can help lower the cost of water treatment efforts and boost sustainability, preventing PFAS exposures and ultimately protecting human health," said Cyclopure chief executive officer Frank Cassou.

## Final Water Quality Standards Regulatory Revisions to Protect Tribal Reserved Rights

April 2024

[https://www.epa.gov/system/files/documents/2024-05/tribal-reserved-rights-final-rule\\_fact-sheet\\_508.pdf](https://www.epa.gov/system/files/documents/2024-05/tribal-reserved-rights-final-rule_fact-sheet_508.pdf)

The U.S. Environmental Protection Agency is finalizing a rule to help protect water quality where Tribes hold and assert rights to aquatic and aquatic-dependent resources. Specifically, the agency is revising the federal water quality standards (WQS) regulation to describe how EPA and states must consider applicable Tribal reserved rights when establishing WQS. For the first time, this action establishes a clear and consistent national framework for EPA and states to follow. When implemented, this final rule will better protect waters that Tribes depend on for various uses, including fishing, gathering wild rice, and cultural practices.

### How does this action support Tribes?

Clean water is essential to Tribes, but diminished water quality prevents many Tribes from maintaining traditional ways of life. By clearly describing how EPA will review state-set WQS that impact water and water-dependent resources reserved to Tribes, this rule will enhance protection of those resources. The final regulatory framework will also provide transparency and predictability for Tribes, states, regulated industries, municipalities, and the public.

### What are water quality standards?

WQS define the goals for a water body by designating its uses (such as fishing), setting criteria (pollutant levels or conditions) that support those uses, and establishing policies to protect existing water quality from degradation. Section 303(c) of the Clean Water Act (CWA) directs states<sup>1</sup> to establish WQS for rivers, lakes, estuaries, and other waters of the U. S. within their jurisdictions. States must review their WQS at least every three years and, if appropriate, revise or

establish new standards. Any new or revised WQS must be submitted to EPA for review. EPA's regulation that implements CWA section 303(c) specifies requirements for states to develop WQS that are consistent with the Act.

### What are Tribal reserved rights?

This rule defines Tribal reserved rights, for purposes of the federal WQS regulation at Title 40, Part 131 of the Code of Federal Regulations, as "any rights to CWA-protected aquatic and/or aquatic-dependent resources reserved by right holders, either expressly or implicitly, through Federal treaties, statutes, or Executive orders." The U.S. Constitution defines treaties as the supreme law of the land. Many Tribes hold rights to resources in waters where states establish WQS. In implementing CWA section 303(c), EPA has an obligation to ensure that its WQS approvals and disapprovals are consistent with federal laws reflecting Tribal reserved rights.

### What does the final rule require?

The rule requires that if a Tribe asserts a Tribal reserved right in writing to a state and EPA for consideration in establishment of WQS, the state must, to the extent supported by available data and information:

- 1) Take into consideration the use and value of its waters for protecting the Tribal reserved right in adopting or revising designated uses.
- 2) Take into consideration the anticipated future exercise of the Tribal reserved right unsuppressed by water quality in establishing relevant WQS.
- 3) Establish water quality criteria to protect the Tribal reserved right where the state has

*(Continued on page 14)*

<sup>1</sup> Pursuant to 40 CFR 131.3(j), "states" include the 50 states, the District of Columbia, Guam, the Commonwealth of Puerto Rico, Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, and Indian tribes that the EPA determines to be eligible for purposes of the WQS program.

# Final Water Quality Standards Regulatory Revisions to Protect Tribal Reserved Rights

(Continued from page 13)

adopted designated uses that either expressly incorporate protection of the Tribal reserved right or encompass the right. This latter requirement includes developing criteria to protect right holders using at least the same risk level as the state would otherwise use to develop criteria to protect the state's general population (i.e., non-right holders).

## The rule requires that EPA:

- 1) Provide assistance with evaluating Tribal reserved rights upon request by states or right holders, to the extent practicable.

- 2) Review WQS adopted by states and authorized Tribes to determine whether they appropriately considered applicable Tribal reserved rights.
- 3) Initiate the Tribal consultation process with the right holders to inform this review.

## Where can I find more information?

Contact Erica Fleisig at (202) 566-1057, fleisig.eric@epa.gov or Kelly Gravuer at (202) 566-2946, gravuer.kelly@epa.gov. To access the Federal Register notice and supporting documents, visit EPA's Water Quality Standards website.

## Montana Climate Resilience Stories (EVST 191 - Fall 2024)

- Open to Montana high school juniors and seniors as well as college students
- Explores the critical role of storytelling in creating community resilience and effecting climate action
- Network with experts and professionals in the field
- Accredited UM course! Transfer 1-credit towards an undergraduate college degree (elective credit at most institutions)

Contact:  
Dr. Paul Lachapelle  
Professor of Political Science,  
MSU, Bozeman  
[paul.lachapelle@montana.edu](mailto:paul.lachapelle@montana.edu)  
406.994.3620

Or Visit:  
[tinyurl.com/ResilienceMT](http://tinyurl.com/ResilienceMT)



## YOUR OPINION MATTERS! RURAL NEEDS SURVEY

Midwest Assistance Program, Inc. (MAP), is seeking information on your community's needs. Through your response to this survey, you have taken part in shaping the future of your rural America. Why is it important? Your opinion matters. This is not your average survey! The results will be shared with your representatives and senators in Washington D.C. It is important they know the real issues facing our small, rural, and tribal communities. The survey is also easily accessed on the home page of our website: [www.map-inc.org](http://www.map-inc.org)

- Do you have high staff turn-over?
- Do you have a capital improvement plan?
- Is your community population shrinking?
- Do you need assistance funding infrastructure projects?

### RURAL NEEDS SURVEY

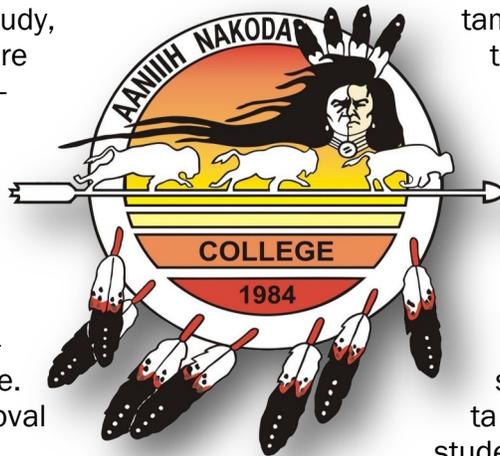


SCAN QR CODE TO ACCESS THE SURVEY BY 12/15/2024  
OR VISIT OUR WEBSITE [WWW.MAP-INC.ORG](http://WWW.MAP-INC.ORG)

# Current Nic?-Mni (Water) Center Projects

By James Swierc, PG, Co-Director Nic Mni Water Center, Hydrogeologist Instructor | Aaniiih Nakoda College

The Nic?-Mni (Water) Center at Aaniiih Nakoda College has been hard at work on water quality projects on the reservation. The water quality technicians and interns have been collecting data on two projects, and will be presenting the results with poster presentations at the upcoming Montana American Water Resources Associations annual meeting in October. The first project is looking at the Snake Butte Spring, collecting water quality samples quarterly to see if it changes seasonally, and measuring the discharge rate monthly to see if the flows are consistent. This data is useful as baseline information to compare with in the future to make sure that this water source will continue to serve the community with changing rain and snow patterns from climate change. This is an ongoing study, and will continue for several more years. The results to date show consistent, good water quality that doesn't seem to change much with the seasons. The discharge rate from the spring appears to slow down during the summer. If people would like a copy of the water quality results, please contact the Nic?-Mni (Water) Center at the college. (Note: This may be subject to approval by FBIC)



The second project is looking at the streams near the mines, which is a continuation of surface water studies in Lodge Pole Creek and Little People's Creek started during Summer 2022. A student research project was developed to collect data and focus on Little People's Creek and its tributaries in the mountains, especially near the mines. While people spending time there already know that the streams aren't healthy, macroinvertebrate studies conducted by students and faculty during recent years show that the mines have impacted the streams. The contamination of the streams in areas near the mines and not on tribal lands are documented in a TMDL report for the Landusky Region, published by the Montana DEQ in 2012. TMDL stands for Total Maximum Daily Loading, a measure of how much contamination can be in stream waters and sediments before the streams become unhealthy. The TMDL reports "impairments" that show the ecology of the stream and other stream uses don't reflect natural condi-

tions. The "impairments" can be related to specific contaminants, such as individual chemicals or metals, or things like temperature and dissolved oxygen. These things can all impact the ecology of the stream, from wetland plant and macroinvertebrates at the start of the food chain, which then hurts fish and all other creatures higher up the food chain. Federal law required that these programs be developed by each state for all streams and lakes across the country. Note that the Landusky TMDL Report does not include any data for streams on tribal lands. The goal of the stream project is to collect data to perform a TMDL analysis of streams on the reservation and upstream in the mountains to get data that shows the "impairments", or how contaminated the streams are, with respect to the acceptable contaminant levels set by the regulatory agencies for streams in the TMDL report. During July of this summer, the Nic?-Mni staff, with a student intern, worked on collecting flow measurements, water quality samples and stream sediment samples to get data to complete the analyses where streams flow on tribal lands. The data is still being reviewed as part of the student intern's research project. The conclusions will be presented in a future article.

## Nic?-Mni (Water) Center Private Well Sampling

The Nic?-Mni Center can collect water quality samples from any private wells that tribal residents have. Samples will be collected by the technicians and sent to Energy Laboratories in Helena for analysis. The lab takes about 3 weeks to get results. Once they are received, the staff will bring the results back to the residents of the house. Samples should be collected from outside hydrants or faucets before any treatment of the water, so that we know the water quality from the source aquifer in the ground. If there is a treatment system, a second sample can be collected to verify how the treatment system is working. If there are any problems with water quality, we will notify and work with the tribal sanitarian to help make sure that the water is acceptable for continued use.

# Tribal Lands & Environmental Forum (TLEF) 2024

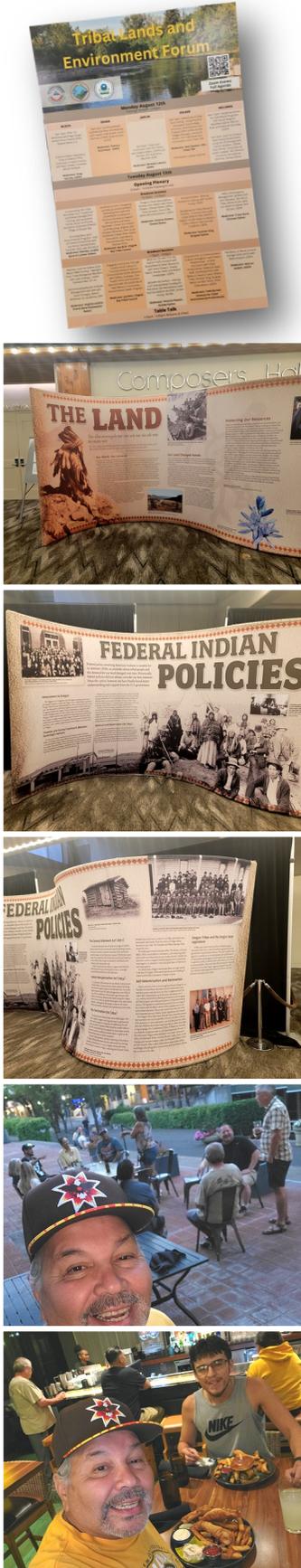
## A Homecoming of Sorts in Eugene, Oregon

By Kermit Snow Jr, BTRP Compliance Officer

Wahey Neetine, hello my relatives. It is and was one of the best weeks of the year in the Tribal environmental field. It was Tribal Lands and Environmental Forum (TLEF) time. A time when all friends and family come together and gather in one spot for a week. As Todd Barnell would later say, this is a Homecoming for all who attend, as we are considered family to each other when we gather for this awesome week of fun and learning. The staff of ITEP have done a great job the past 14 years of putting on this great conference of the minds, getting people of industry, government, and Tribal professionals in one spot to come together and find solutions for our lands and Mother Earth. It is a time of joy, to see what we all have been doing in the past year and to welcome new people to this great family. This year, my travel to the conference went without a hitch, no cancelled flight or long layovers, like last year, when my luggage made it to the conference before me. I arrived a day before the festivities, as I do every year, but we did run into a problem on day one of field trips. I had signed on for the 7 Feathers Truck and Travel Center field trip, owned by the Cow Creek Band of Umpqua, for an overview of a Tribal UST System. The bus/charter we were suppose to take, got a flat and there were no other buses available. So, this turned out to be an impromptu discussion on UST's and all other issues/problems attendees had questions about. It went very well, as we listened to both government and Tribal professionals talk about what they knew. It was good to see how we turned something bad, into something good, as we all walked away with something learned. The second day started good, with the Opening Plenary, and a welcome by Todd Barnell. He gave way to John Wheaton (Nez Perce Tribe) to give a Prayer and Honor Song. He was followed by the keynote speaker Shannin Stuzman, who performed the Flag Song. Todd mentioned how this conference is something of a homecoming and then talked about the 450 + people in attendance and the 250 or so that attended virtual. He mentioned the nine Nations in Oregon and the students that would be coming to TLEF to talk about their research. He mentioned the outing to go see the Eugene Emeralds, the local minor league baseball team, and that the tickets for the TLEF group were sold out and they were working on getting more. He then mentioned that a TLEF attendee would be throwing out the first pitch, yours truly, me. We then listened to welcome remarks from people in high places, such as Kenneth Martin (EPA AEIO and Bad River Member) who gave a welcome and talked about GAP needing more funding and Native rep-

(Continued on page 17)

*Circle Speaker*



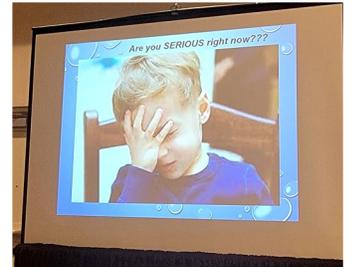
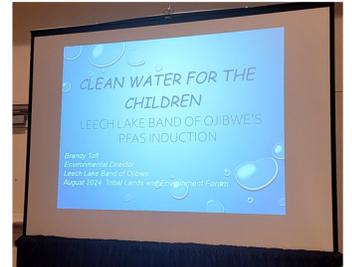
# A Homecoming of Sorts in Eugene, Oregon

(Continued from page 16)



resentation in the Federal Government, of which is comprised of 0.6% of the staff. Cliff Phillip (Dep. Asst. OLEM) in his welcome, talked about the Soil Lead Guidance, PFAS & Proposed Rule, the Final Coal Ash Rule, \$300 million in Brownfield Grants, LUST, Open Dumps, and another round of SWIFR Grants coming out. Rebecca Stevens (Coeur d'Alene and TWAR) gave her welcome before the Keynote Speaker talked. The Keynote Speaker was Shannin Stutzman (Coos Bay/Siletz/Kalapuya Storyteller) who talked about her Tribes history and that they called white people, Bostons. She mentioned her people as storytellers, like her mother and where she gets it from. She said her people are canoe people (river), their Creation story, their Tribal language and developing a dictionary, of which they donated a copy to NAU/ITEP. She finished with the Snake Story and got all of the attendees to interact as she told the story, very fun. The rest of the day was filled with different sessions to attend and then the baseball game later that night. I went to the game early with Shawn Hongeva (ITEP Photographer) to meet with baseball staff for opening pitch. There would be two (2) of us each throwing a pitch, along with two (2) young kids, one brushing off home plate and the other yelling "Play Ball". It was a great experience for me, as I had never done this before and was very nervous. I was talking with one of the Emeralds and he was telling me to just relax and that I could do it. I was hoping I would make it over the plate and I did. It was fun having people from the conference to cheer me on and then enjoy the game with each other. The Emeralds won. The rest of the conference went as planned, with many break-out sessions to choose from, owning a gas station, leveraging internet technology for UST compliance, modernizing Tribal transfer stations, Trash Talk, to climate change to name of few sessions. It is always hard picking a session, some sessions that you want, are going on at the same time. The one good thing about this conference is, the sessions you missed because you went to another one, can be seen a couple weeks later on the ITEP website. So, in a sense, you really don't miss out on any session. You also get to see how another Tribe can help you, as I learned from attending a session by the Choctaw Nation on Brownfields, who later helped me out after I contacted her. That is what this conference is about also, networking and how it can help you in your job. Another great event that was planned, was a movie screening Bring Them Home, on how they brought the buffalo back home to the Blackfeet Reservation. It also showed the collaboration between the Blackfeet of Montana and the Blackfoot of Canada. It was an awesome film and thank you to ITEP for the popcorn and refreshments. The closing Plenary went good, Todd thanked everyone for com-

(Continued on page 18)



# A Homecoming of Sorts in Eugene, Oregon

(Continued from page 17)



ing and introduced the new people to the raffle, as it is not only their first time, but his as well, as he is usually packing up. We then all waited to see if our names would be called for the many gifts the attendees brought. He then talked about something different this year, a Veteran's raffle of three items by an anonymous person, a Pendleton Thermos and two Pendleton blankets, for Veteran's attending conference. The final raffle was for the **Fort Belknap Indian Community Council Star Quilt**, the one everyone wishes they could go home with. The winner this year was special for me, as it was my good friend Mel Joseph of Lone Pine. We first met twenty (20) years ago, when I was the Air Quality Coordinator, which is how I got introduced to ITEP and all the Airheads. I haven't seen him for a long time, as I have moved on to a different media and he was busy coaching the High School Volleyball team. Early on in the conference, I told him I hope he wins our Star Quilt, I was so happy when they drew his name. We then watched a film clip by ITEP Photographer Shawn Hongeva, on the weeks activities. This was then followed by the closing remarks from Summer King (Quapaw Nation & Vice Chair TWAR). She talked about how this was homecoming or rather a family reunion for all. She talked about the new attendees (Fresh Flowers-Perennials) and the veteran's (Millennials), about learning the Four R's (Respect, Relevance, Reciprocity, Responsibility), and meeting new people and asking them questions. She talked about the Fresh Flowers, to bring new ideas to TWAR and she talked about the awesome movie screening of Bring Them Home. Todd then closed it out talking about being in the last year of the grant and getting ready to apply again, but also helping out, if they don't get it. Like Summer said, this is the most important work we will ever do, all with the help of ITEP. I hope to see you all again next year at the family reunion. A'HO

*Thank You...*

**I would also like to thank the following for their generous donations for the 2024 TLEF Raffle:**

- **Fort Belknap Indian Community Council** for their beautiful Star Quilt.
- **Aaniiih Nakoda College** for their ANC Backpack, Book Binder, Pendleton coffee cup, and classroom supplies.
- **Kermit Snow, Jr.** for beaded earrings, Tumbler, Pendleton Throw, and other gifts.

The attendees love all the gifts provided by Fort Belknap Indian Community each year I attend this conference.



Results of the 2024 Native American Week

# DOOR DECORATING CONTEST

Sponsored by the Fort Belknap Environmental Protection Department



PROSECUTOR'S OFFICE



SOCIAL SERVICES



CHILD SUPPORT

**NATIVE AMERICAN WEEK**

## CONGRATULATIONS!

1st Place—Prosecutor's Office (score 49 pts)

2nd Place—Social Services (score 48 pts) So close!!

3rd Place—Fort Belknap Child Support Program (45 pts)



### Honorable Mentions:



TIWAHE



THD—ENVIRONMENTAL HEALTH



FAMILY INTERVENTION



MYRNA COCHRAN

# THANK YOU to all who participated!

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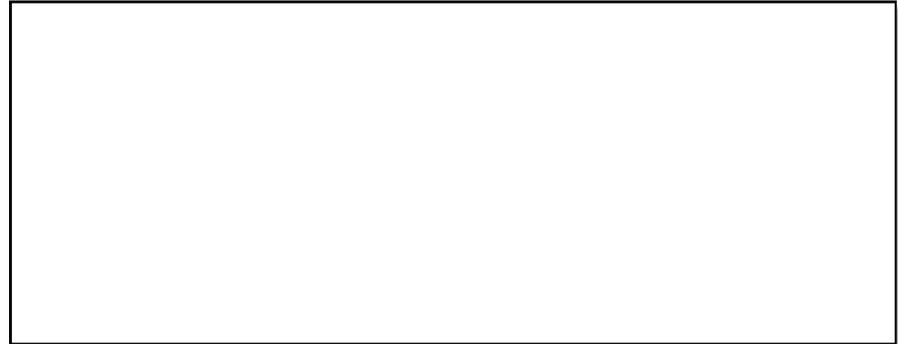
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**[www.ftbelknap.org](http://www.ftbelknap.org)**



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## **IMPORTANT ANNOUNCEMENT**

The Nic?-Mni (Water) Center research program wants to let people know that we will be installing sentinel monitoring wells in the area near the Pow Wow grounds, and along the reservation boundary near South Bighorn Creek and King Creek. They are called sentinel wells since they will be used to monitor if contaminated groundwater from the mine is moving towards the Pow Wow grounds. The wells will be used to support research of the groundwater hydrology of the area near the mines. This is part of the research program to investigate how water flows in the ground in the area and how groundwater is connected to surface waters (like the contaminated water in Swift Gulch). Since the main stream near the Pow Wow grounds is mostly dry and does not support flows all year, we know that the contaminated surface waters upstream from the Pow Wow grounds are infiltrating into the ground, and it's important that we collect data to help understand what happens to those waters. The drilling company will be coming from Great Falls for installation of monitoring wells designed for water quality sampling, and measurement of the depth to water below the ground ("water levels"). The drilling program is planned to start the week of October 21, and is expected to take one or two weeks to complete, depending on weather and conditions encountered during drilling. Please be considerate to the drillers and their equipment, as they are installing the wells to help the Nic?-Mni (Water) Center staff and students conduct research to understand where the contaminated waters from the mine may be moving in underground aquifers.