

Thomas Linzey, Senior Legal Counsel for the Center for Democratic and Environmental Rights CDER visited Tar Creek for the first time, but saw the same kind of damaged water he had seen too many times, at polluted places in the US and in other countries around the world. It was with assistance from CDER the proposed Clean Water Protection ordinance was launched during the summer of 2021. The renewed interest in Tar Creek will drive the efforts to put protections in place through citizen petition processes in the future.

Mr. Linzey made a presentation to the Intertribal Council during his visit, about his work assisting communities, tribes and countries in forming codes, laws and ordinances for the legal protection for rivers and whole eco-systems. Ottawa Chief Cook asked him what he needed from them, and what was explained was Linzey actually brought his availability to be of assistance with any and all of the tribes in their own efforts to establish Rights of Nature legislation.

Eastern Shawnee Chief Glenna Wallace expressed a great concern for the color of Tar Creek and the harm that has been done to water here and that politicians needed to understand its importance. "NO LONGER CAN WE AFFORD TO THINK IN TERMS OF JUST PROTECTING THE HUMAN COMMUNITY. WE NEED TO UNDER-STAND THAT EVERY-THING THAT AFFECTS THE NATURAL ENVIRONMENT AFFECTS US ALL"

# The LEADer

#### Page 2

# Where You Begin the Journey: Multiple Pathways to Empathy and Equity Through Researcher Community Collaborations

**AAAS PANEL: CULTURAL HUMILITY/COMPETENCE** American Association for the Advancement of Science Communication Program Officer **Elana Kimbrell** invited LEAD Agency to participate in a Communicating Science Seminar at the <u>AAAS Annual Meeting</u>. The seminar examined how people with varied lived experiences find common ground for conversations about science and build bridges to productive dialogue and action.

LEAD's **Martin Lively** and Wellesley College professor **Dan Brabander** along with Post baccalaureate Researcher **Claire Hayhow**, currently working with the Silent Spring Institute joined a team representing the Flint, Michigan community. They discussed the relationships that can and should develop between scientific researchers and members of affected communities. Often scientists "parachute" into communities to fix an acute health crisis. Panelists encouraged building longer-term relationships, which may mean overcoming cultural differences. By building mutual trust, new scientific questions are asked, and new answers for communities are found – as LEAD's long partnership with Wellesley College demonstrates. This panel illustrated for a scientific audience how deep community relationships offer not only journal articles, but also a transformation and shared joy by discovering together what serious questions community members have and helping to find those answers.

## MORE EXCITEMENTS AND REQUESTS:

LEAD is an environmental justice organization and it is you who we believe deserve justice. Together we are stronger and more able to address the environmental issues we are facing. Our next issue will be packed with the programs and projects LEAD has had in the works for years and are kick starting them all at once. Ga Du Gi (Working Together in the Cherokee Language) has been our motto and we are going to need many people working with us to be successful in the projects that we are beginning. After two years of a pandemic, we know how to work safely while working together, so we will be asking you to choose to join in these efforts more fully. Whether you are a "people person" or a nature lover, fisherman, or want to get this Community Garden back to its glory or be involved in building a Rain Garden, we have a place for you and a great need for your help.

You will be side-beside college, university and high school students, researchers, scientists and a Master gardener. Stories you choose to share in the Air/Water and Work Stories are our history. We value your past and want you to be part of what we do to protect the future generation.

Let us know your availability whether in person, by phone, zoom or with social media. Get ready.

I have humbly included a reprint of an article from Sierra Magazine about:

Your Tar Creekkeeper ~ Rebecca Jim

### LEAD Agency, Inc.

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# JAN/FEB 2022

Page 3

# YOUR OPINIONS, INPUT AND STORIES MATTER TO US

#### **AIR ADDED TO WATER & WORK STORIES PROJECT**

Working in collaboration with LEAD, students and researchers Moriah Bailey Stephenson, Valerie Doombos, Laurel Smith and Jenna Randall, will conduct an oral history and GIS mapping project focused on experiences with work and water in Ottawa County, Oklahoma. Earlier out of deep respect for tribal sovereignty, permission to conduct this study was received from the Intertribal Council whose territories make up Ottawa County: Quapaw, Seneca-Cayuga, Miami, Modoc, Wyandotte, Ottawa, Peoria, Shawnee, Eastern Shawnee, and Cherokee.

This oral history project will involve mapping of contemporary and historical sites and oral history interviews covering two primary focuses:

Work: occupational history and memories of labor in the mines, the BF Goodrich Plant, agricultural, environmental, and other industries.

Water: relationships with water, views, how water has been a part of life in the past and present, and hopes for the future. This might include discussions of recreation, fishing, bird watching, flooding, and/or responses to flooding.

#### NORTHEAST OTTAWA COUNTY PRIVATE WELL SURVEY

Since the discovery by Indian Health Service of the migration of contaminated mine water into a private well of a tribal member and the actions to connect the household to safe rural water, LEAD and DEQ have worked with Indian Health to develop a plan to determine which agency would take on the responsibility of testing the private water wells in a 20 square mile area of Ottawa County. LEAD will begin the survey process by visiting the residents in that area, road by road until we have reached all the residents. Tribal wells will be sampled by I.H.S. while non-tribal by DEQ. We begin because of the additional staff member, Shane Hallett who will be assisting in this process. Indian Health has received funding and approval to begin placing rural water lines to tribal homes in need of clean safe drinking water, free from the lead and other heavy metals that may be occurring.

#### **CLIMIGRATION PROJECT INCLUDES SURVEYS**

LEAD joined a partnership with Climigration/A2/Buy-IN for the communities of Ponce in Puerto Rico, Miami, OK and Port Arthur, Texas to identify and evaluate approaches to respond to climate displacement. This collaboration will bring a better understanding on flood risks, provide a guide community members for buy-out support programs and assist the community to develop strategies to adapt to flood risk, including green infrastructure and assisted relocation.

LEAD will form a steering committee who will attend the virtual meetings, the members will design questions to survey community members and share what we learn with Climigration.

## LEAD AGENCY BOARD AND MEMBER MEETINGS

BOARD AND MEMBER MEETINGS REMAIN VIRTUAL

NOT RECEIVING THE ZOOM OR CALL-IN #'S TO PARTICIPATE PLEASE CALL 918-542-9399 OR MESSAGE US ON FACEBOOK

LEAD MEETINGS 1ST THURSDAYS AT 5:30

LEAD BOARD MEETS LAST THURSDAYS 5:30

LEAD CONTINUES TO FOLLOW COVID19 CDC GUIDELINES FOR SAFE WORKING CON-DITIONS AT OUR OFFICE AND TO PROMOTE SAFE PUBLIC MEETINGS TO PROTECT US ALL.



#### LEAD BOARD POLICIES ON COVID-19

Our Board directs LEAD staff to remain masked in the office when working together, regardless of vaccination status. Visitors will be provided masks during the pandemic. Employees must act in ways that protect the broader community and with individuals we interact.

# **PROTECTING OURSELVES PROTECTING OTHERS**



# The LEADer

#### Page 4

#### UNIVERSITY OF THE PACIFIC SEES TAR CREEK IN NEW WAYS

Jennifer Little, associate professor of photography has been visiting and capturing images and drone footage of the Tar Creek Superfund site for several seasons. From a recent visit she has created a video for Tar Creek that will be publicly released in April. Her images have now inspired the Harvard School of Design Studio students and Gabe Teo, a fellow professor at the University of the Pacific. In addition one of her interns is redesigning our website. **Gabe Teo** is the instructor of visual effects who has introduced Tar Creek to one of his classes this semester. "We are super excited about the project in the animation course." The environmental challenges and history of Tar Creek, the importance of environmental protection and most importantly the history of Native Americans — the students will do in-depth research in order to be able to develop and to create narratives and characters for their projects.

# We've flooded enough. We won't take it anymore.

Over 1,000 people have signed these statements. There is room for YOU to sign one, too.

# WHAT YOU NEED TO KNOW ABOUT TAR CREEK

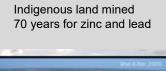
### OTTAWA TRIBAL STUDENT TAKES ACTION AT TAR CREEK

**Micalea Klaus**, Ottawa Tribal member and a graduate of Ottawa University, is now completing a Masters in Marine Biology with her final project



- Chat piles (mine remnants) remained after mining operations ceased
- Toxic dust led to elevated blood lead levels in native children





Tributary of the Neosho River

Essential freshwater ecosys-

BACKGROUND

in NE Oklahoma

tem for local tribes



- Acid mine water surfaced in 1979 and area was designated Tar Creek Superfund Site in 1983
- With chat piles remaining the ecosystem is endangered and poses a threat to surrounding residents and wildlife

designed around freshwater ecosystem health and environmental stewardship on a segment of Tar Creek running through the Ottawa boundaries. Tribal members participating in her project document observations on wildlife and the state of the ecology in and surrounding Tar Creek.

"We hope to find evidence of river otters during these efforts, because they serve as bioindicators for ecosystem health and have a cultural connection to our tribe."



# **JAN/FEB 2022**

## **DEQ WARNING SIGNS READY TO BE POSTED & MAILED**

Due to the evidence of children both fishing and swimming in Tar Creek this past summer and fall, DEQ has taken the long overdue action of mailing postcards to the residents along and near Tar Creek with this important message discouraging both swimming and consuming fish that might be caught in the creek. In addition DEQ has worked with the City of Miami and received permission to post signage (see below) along the creek.

# Tar Creek Superfund Site

Tar Creek may contain high levels of lead, cadmium, and other heavy metals from past mining activities

# PROTECT YOUR HEALTH:

**Swimming Discouraged** 

**Fish Consumption Discouraged** 



www.deq.ok.gov

## LEAD POISONING: RULES PROPERTY MANAGERS NEED TO FOLLOW

"EPA affirms that property management companies (PMCs) that perform, offer, or claim to perform regulated renovations in pre-1978 housing or child-occupied facilities are required to obtain certification from the EPA and ensure that renovations in the homes they manage are performed by certified firms and employees trained to use leadsafe work practices. EPA plans to hold both the PMCs and the contractors they hire responsible for compliance if the circumstances indicate that both entities performed or offered to perform renovations for compensation in target housing or child occupied facilities. LANDLORDS:

"Compliance with the leadbased paint RRP rule's re-

quirements protects people, especially young children, from the hazardous effects of lead," said Larry Starfield, Acting Assistant Administrator for the EPA's Office of Enforcement and Compliance Assurance. "With this action EPA is notifying property management companies that EPA will assess RRP Rule compliance based on the broadly applicable language of the RRP rule, whether the property management company uses its own employees or hires an outside firm to perform the renovation. "Providing equal protections for all communities from the dangers of lead-based paint means we need to hold everyone equally accountable for following the requirements of the RRP rule," said Michael

Freedhoff, EPA's Office of Chemical Safety and Pollution Prevention. This is especially important to underserved and overburdened communities, which often include a high proportion of rental housing managed by PMCs. Compliance with the RRP rule's requirements protects people from the hazardous health effects of lead. Lead-contaminated dust from chipped or peeling leadbased paint in homes built prior to 1978 presents one of the most common causes of elevated blood lead levels in children. Infants and children are especially vulnerable to lead paint exposure because their growing bodies absorb more lead than adults do, and their brains and nervous systems are more sensitive to the damaging effects of lead.

Following lead-safe work practices will help reduce exposure to lead and keep children and workers healthy



https://www.epa.gov/newsreleases/epa-affirms-building-managers-responsible-lead-based-paint-safety-requirements-when



Rebecca Jim has dedicated her life to cleaning up Tar Creek and warning others about the area's toxic dangers. Photos by Cody Hammer

## Rebecca Jim and the Legacy of Tar Creek

The lifelong activist brings people together to heal the land By <u>Wendy Becktold</u> | Dec 29 2021

Rebecca Jim lives on 490 acres of tallgrass prairie in northeastern Oklahoma. A creek runs by her house, which she built with her father in her twenties. Persimmon, walnut, pecan, and pine trees that she planted herself offer shade. Most years she tends a big garden. The buckbrush that she uses to make baskets grows outside her back door.

For two and a half decades, Jim commuted 25 miles east to the town of Miami (pronounced my-am-ah), in Ottawa County, where she worked as a counselor for Native American students at the junior high and high school (about 20 percent of the county's population is Indigenous). During that time, Jim, who is Cherokee, never lost sight of the fact that while she resided in a beautiful place where she could live off the land and safely practice her cultural traditions, her students did not. Their families lived in and around Tar Creek, the oldest Superfund site in the United States: 40 square miles of toxic air, soil, and water.

In the first half of the 20th century, northeastern Oklahoma was mined heavily for zinc and iron ore. By the 1960s, the mines had closed and the mining companies had left behind a landscape dotted with deserted mine shafts, tailing ponds, and enormous piles of chat, a byproduct from processing ore that looks like dirt and gravel. One day in 1979, soon after Jim had begun her job as a counselor in Miami, the small creek that wound through the town turned orange. The mines had been built on top of an aquifer and, when operating, had been pumped to stay dry. Once closed, they had gradually refilled and finally overflowed, pouring out a toxic soup of ore, zinc, cadmium, and other heavy metals. At least a million gallons of mine water a day were flowing downstream—sometimes much more. "Tar Creek was the treasure of the town," Jim says. "The people I worked with fished in it every day. My students swam in it."

In 1983, the EPA declared the area the Tar Creek Superfund site. The agency tried a few tactics to improve the water quality, then gave up. It took another 10 years for residents to realize the full scope of the problem.

https://www.sierraclub.org/sierra/2021-6-winter/do-gooder/rebecca-jim-and-legacy-tar-creek

In the early 1990s, the Indian Health Service discovered that a third of the children at the clinic in Miami had elevated levels of lead in their blood. In nearby Picher, 34 percent of the children were found to be suffering from lead poisoning. One of the main sources of exposure was the chat piles dominating the skyline. Kids played on them, climbing up and sliding down. Wind blew the dust into people's houses. Towns built playgrounds with chat; fathers filled sandboxes.

For Jim, the grim news made sense. She had grappled with high rates of learning and behavioral problems among her students—common outcomes for kids exposed to lead. She told herself, "We have to do everything we can do to lower those rates."

The EPA launched a large-scale project to replace the soil in yards and parks, but the chat piles and polluted water remained. Jim and her students decided that people needed to understand the risks. They began taking kids from surrounding schools on "toxic tours" to show them the damage. They made posters and flyers instructing residents to wash their hands frequently and wipe down surfaces.



Before long, the whole school was involved. Math students calculated the percentage of heavy metals in the water; English students wrote poetry about their devastating impacts. Sophomores collaborated with scientists studying Tar Creek for a required environmental research project, and Jim and her students started a tooth fairy project, collecting baby teeth so they could be tested for lead.

Jim hesitates to take credit for these efforts, saying, "I just stirred the pot." But her effect on students was profound. Melanie White was in high school in the mid-'90s. Jim, she says, was all about getting information out: "There were no secrets with her, and that's what I loved." White, who is Cherokee, also credits Jim with connecting her to her heritage. "She helped me grow my backbone," White says. "She has a soft, kind heart, but when you look in her eyes, you see steel. As we say around here, dynamite comes in small packages."

In 1997, Jim cofounded the agency Local Environmental Action Demanded (LEAD), and she remains its executive director. She retired from her counseling job in 2001. As Jim explains it, LEAD is doing what the students did—conducting toxic tours, pushing for more cleanup funds, and organizing the annual Tar Creek Conference, now in its 23rd year.

Bob Nairn, an engineering and environmental science professor at the University of Oklahoma, met Jim on a toxic tour in the late '90s. "No matter how many roadblocks occur, she doesn't give up," he says. Nairn and his students regularly attend the Tar Creek Conference, which brings together universities, state and federal agencies, and tribes for what Nairn calls "a few days of information sharing and fellowship." Jim has spent decades building out this web of relationships—an intensive emotional labor that's hard to quantify but that ensures that the people of Tar Creek aren't forgotten.

Nairn has overseen the construction of two passive water-treatment systems that send half a million gallons of clean water a day back into Tar Creek, a solution that he thinks with proper funding can be scaled up. Jim whole-heartedly agrees.

"We're going to end up with a wastewater-treatment system right where that bad water enters," she says. "We're going to cap that mine waste. Children are going to play here again."

This article is reprinted in the LEADER with permission after it appeared in the Winter quarterly edition: The magazine of the Sierra Club with the headline "The Legacy of Tar Creek."

# BE OUR VISTA

## To Serve You'll need...

» To be a US Citizen, National, or Lawful Permanent Resident

» To hold a Bachelor's Degree or have Equivalent Experience

» To be able to commit a full year (365 days) to an amazing experience

» To be at least 18 years of age

## What You'll get is...

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service year is completed

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» In-person & virtual service and professional development training

» The chance of a lifetime to leave a legacy in a community in need!

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www.facebook.com/ stewardslegacy.org

www.instagram.com/ stewardsip/



www.twitter.com/ stewardsip This VISTA, Year 1 of our project, will study the region's environmental hazards and conduct a comprehensive community environmental asset mapping project for the region. It will identify existing and potential human, community, and environmental assets. The VISTA will then prepare a proposed initial suite of outdoor programs utilizing the currently-available assets. The VISTA will also provide support (programmatic, office, organizational, research, etc.) for LEAD Agency's other environmental justice projects as needed. The balance drawn between time spent on the environmental mapping project and programmatic support will be determined in part by the VISTA's abilities and interests.



EGAC



LEAD Agency has an opening for a VISTA to work with us for the next year. If you are interested contact our office to learn more:

918-542-9399