



# ITEC NEWS

*"The Official Newsletter of the Inter-Tribal Environmental Council"*

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## **ITEC MEMBER TRIBES**

Absentee-Shawnee Tribe  
Alabama-Coushatta Tribe  
Alabama-Quassarte Tribe  
Apache Tribe  
Caddo Nation  
Cherokee Nation  
Cheyenne/Arapaho Tribes  
Citizen Potawatomi Nation  
Comanche Nation  
Coushatta Tribe of Louisiana  
Delaware Nation  
Delaware Tribe  
Eastern Shawnee Tribe  
Fort Sill Apache  
Iowa Tribe  
Jicarilla Apache Nation  
Kaw Nation  
Kialegee Tribal Town  
Kickapoo Tribe  
Kiowa Tribe  
Miami Tribe  
Modoc Tribe  
Muscogee (Creek) Nation  
Osage Nation  
Otoe-Missouria Tribe  
Ottawa Tribe  
Pawnee Nation  
Peoria Tribe  
Ponca Tribe  
Pueblo of Laguna  
Pueblo of Pojoaque  
Pueblo of Santa Clara  
Pueblo of Taos  
Pueblo of Tesuque  
Quapaw Tribe  
Sac & Fox Nation  
Seminole Nation  
Seneca-Cayuga Nation  
Shawnee Tribe  
Thlopthlocco Tribal Town  
Tonkawa Tribe  
Wichita & Affiliated Tribes  
Wyandotte Nation  
Ysleta del Sur Pueblo  
Zuni Tribe

## **22<sup>nd</sup> Annual ITEC Conference**

The 22nd Annual Inter-Tribal Environmental Council Conference was held on July 25-27, 2017 at the Hard Rock Hotel & Casino in Ca-toosa, OK. The General Assembly opened with the presentation of colors being posted by the Cherokee Nation Color Guard. Opening songs were performed by Cheyenne Arapaho Tradition Not Addiction Youth Group.



Bill John Baker, Principal Chief of the Cherokee Nation provided the welcome. Sara Hill with Cherokee Nation provided the RTOC and NTOC updates. Yvette Wiley with the Iowa Tribe provided a poem recitation. ITEC staff provided various ITEC program updates during the Annual ITEC Meeting. Breakout session topics included Wildfire Management, Cultural Preservation, Food Sovereignty, Pesticides, First Aid & Field Safety Training, Natural Resources, Edible, Medicial & Traditional Plants, National Environmental Policy Act, Environmental Health, Environmental Issues, Renewable Energy and various other topics.

There were approximately 230 attendees which included representatives from the Environmental Protection Agency, Region 6 Tribes, various tribal organizations, federal and state agencies, environmental consultants and environmental organizations. Equipment manufacturers displayed exhibitor booths at the conference.



# ITEC NEWS

## Tar Creek Conference: 19 Years of Environmental Commitment

By Debbie Dotson

The 19<sup>th</sup> Annual National Environmental Conference at Tar Creek was held on September 26 and 27 in Miami, OK at North-eastern Oklahoma A & M College. Several tribal and local partners collaborated on planning and supporting the event in an effort to showcase environmental work completed and projects still to come surrounding the Tar Creek Superfund site.

All of the presentations at the Conference were meant to highlight, “what everyone living in the Tar Creek Superfund site and downstream should know.” Clean-up work in the Tar Creek area, informing local residents about public health issues from pollution, and looking at impacts on the natural resources and economy in the area were the focal points of the conference. The event included art from local artists with photographs, prints, paintings, and film presentations.

Tar Creek in Miami, OK, was designated an official Superfund site by EPA in 1983 due to the impacts on the region from mining and heavy metal contamination. Lead, other metals, and tailings from mining left problems behind for the water, plants, soil, and fish in the community. US EPA in Regions 6 and 7, Oklahoma Department of Environmental Quality, and the tribes in Ottawa County, Oklahoma have been working on cleanup efforts for many years. Residual metals and other chemicals from mining and industry continue to affect the health of people in the area. Public health issues, particularly the effects of lead blood levels in children, and the health of the local environment, inspire the need for an annual conference where issues and the latest studies are made available to local residents.

Mike Synar Environmental Excellence Awards were given to Larry Tippit from Peoria Tribe of Indians of Oklahoma, Rafael Casanova for US EPA Region 6, Dr. Robert Wright, and Dr. Ed Gustavson. Larry Tippit also earned a special recognition from EPA for his work in collecting wildlife samples for Tar Creek. Wyatt Chuckluck, a senior from Commerce High School, won a scholarship for his work in school, the community, and tribal work.

The L.E.A.D. (Local Environmental Action Demanded) Agency in Miami, OK is the coordinating agency for the event each year. L.E.A.D. works with youth on education projects and community educational efforts in the interests of public health related to metals exposure and environmental health of the area waters. Rebecca Jim heads the L.E.A.D. Agency and has worked tirelessly for years in the Miami community, particularly with children and as an advocate of public health. Ms. Jim is a Cherokee tribal citizen, and worked in area schools before starting L.E.A.D. Agency.

For more information on remediation work in northeast Oklahoma and planning for the next conference, please check out the L.E.A.D. Agency’s website, [www.leadagency.org](http://www.leadagency.org), or call at 918-542-9399.

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# ITEC NEWS

## Lost Creek Water Festival: An Educational Day at the Creek

By Debbie Dotson, Water Quality Officer

On September 8, the Eastern Shawnee Tribe's Water Quality Monitoring Program hosted the 3rd annual Lost Creek Water Festival. Over 600 students and teachers attended this year's event, which included 12 different education stations. The weather was ideal for a day outside at the Eastern Shawnee Powwow grounds, under the shade of the ash trees along the street leading to Lost Creek.

Schools participating this year were Wyandotte Elementary, Fairland Elementary and Middle School, Turkey Ford, Seneca Intermediate School, Epic Charter School and Eastern Shawnee Learning Center. Students and their teachers checked in and then walked from station to station with their class. Each station provided an educational demonstration, presentation, or outreach materials for the students, with a focus on environmental and water quality topics.



There was a presentation on the Grand Lake Watershed, showing on maps how our watershed touches four different states but all drains to Grand Lake in Oklahoma, then demonstrating how water moves through our watershed. The kids seemed really surprised to learn that they were standing on the state line of Missouri and Oklahoma, and then to see the map of all of the waterways that come from Kansas, Missouri, and Arkansas and flow into Oklahoma. We talked about being good water neighbors, because no matter where you live, you live in a watershed and there is always someone else downstream to consider.

Everyone's favorite station to see was at Lost Creek, where Candice Miller from Oklahoma Conservation Commission, Bruce Hallman from US Fish and Wildlife Service, and Tammy Gibson from the Eastern Shawnee Indian Child Welfare office worked together to collect macroinvertebrates from the creek and let the kids see them with microscopes. For some, it was the first time to see and touch the different varieties of life forms that live in the creek.



Environmental departments from area tribes were: Eastern Shawnee Tribe of Oklahoma, Peoria Tribe of Indians of Oklahoma, Wyandotte Nation, Seneca Cayuga Nation, and Quapaw Tribe of Oklahoma. Missouri Department of Conservation and Wildcat Glades Audubon Center represented Missouri. Oklahoma Department of Environmental Quality, GRDA, Bernice Nature Center, and Ottawa County Conservation District also had representatives with great information on water quality, fish, and the environment. All of the tribes, agencies, and community partners are great resources for the area.

The event has grown each year in numbers of students and educational stations. All of the partners come together to help the students learn something new that could lead to a school project, encourage awareness and respect for nature's balance, and bring a unique way of learning while being outside. We are looking forward to next year's event.

A big "Neyiwa" goes to the Eastern Shawnee Child and Family Services Department for providing lunch for all of the workers, and for Eastern Shawnee Maintenance and the Powwow Committee for having the grounds looking beautiful. The Eastern Shawnee Environmental Department all pitched in to help in some way during the day. Our Community Health Representative provided a first aid station. The Purchasing Agent shopped for needed supplies, and the Wellness Center loaned us a grill and a much needed water cooler for the day. Thanks to all for helping the event be another successful one.



# ITEC NEWS

## General Information About Harmful Algal Blooms

### **What is a Harmful Algal Bloom?**

A harmful algal bloom (HAB) refers to the fast growth of any phytoplankton (cyanobacteria and microalgae) that can cause harm to animals, people, or the local ecology. HABs can affect human, animal, and environmental health.

A HAB can harm people, animals, or the local ecosystem. A HAB can cause harm by producing toxins that can poison humans, fish, seabirds, aquatic animals, livestock, wildlife, and household pets (such as dogs) that are near the water, consume the water, or swim in the water. A HAB can also cause harm through the buildup of toxins in both fresh and marine water fish and shellfish, which can cause illness when a person or animal eats the contaminated fish or shellfish.

A HAB can also cause harm by growing densely and blocking the sunlight from reaching the lower depths of the water. A HAB can also starve fish and plants of oxygen in the water when they decompose, resulting in fish kills and damage to the local ecology.

Not all algal blooms are harmful. Algal blooms known as “nuisance blooms” can discolor water, smell bad, and/or cause the water or fish to taste bad. Nuisance blooms are not dangerous as they do not produce toxins that can harm people or animals. However, they can discourage people from visiting beaches, drinking tap water, or eating fish from the water that is experiencing the bloom.

It is not possible to tell if a bloom is harmful just by looking at it.

### **What causes a Harmful Algal Bloom?**

In freshwater, a HAB is most likely to form in warm, still waters with abundant nutrients such as phosphorus and nitrogen. Climate change also might increase the frequency and occurrence of HABs or cause them to be more severe in both freshwater and marine waters. For example, warming temperatures in Lake Erie have contributed to extensive blooms that have lasted long into the early winter months. These blooms were caused by *Microcystis aeruginosa*, a toxin-producing cyanobacteria. In the past, blooms of *Microcystis aeruginosa* in Lake Erie were of smaller size and did not last until winter.

### **What are the symptoms of Harmful Algal Bloom-associated illnesses?**

In humans, exposure to marine water or freshwater contaminated with HAB toxins can cause a variety of signs and symptoms of illness, depending on the amount of toxins, the type of toxin, or the length of time that the person was exposed to the contaminated water or bloom. Symptoms usually begin within hours of exposure and can last for a few days.

People whose skin comes into contact with contaminated water or who breathe in aerosolized water can experience skin and eye irritation, as well respiratory illness. Swallowing the toxin can cause abdominal pain, vomiting, and neurologic effects.

In animals, HAB toxins can cause severe disease such as excessive salivation, weakness, staggered walking, difficulty breathing, convulsions, or even death. Death in animals can occur within hours to days of exposure.

### **How can I prevent illness from a Harmful Algal Bloom?**

If you see an algal bloom, stay out of the water and keep your pets out of the water. It may be difficult to determine if an algal bloom is harmful by looking at it, so it is best to use caution and avoid contact. If you or your pets do go in water that has an algal bloom, wash yourself or your pets off immediately afterwards with tap water. When you visit a body of water, check for current local and/or state swimming or fishing advisories. If you have concerns about the appearance, smell, or taste of the water, stop using the water and contact your local park authority, environmental authority, or health department.

If you have been notified of a HAB in a local water body or in your public drinking water supply, follow local or state guidance to reduce your risk and report any illnesses that you believe resulted from exposure to a HAB or HAB toxins.





# ITEC NEWS

## Advanced Floodplain Management Training

On October 4, 2017 Cherokee Nation Environmental Programs hosted an Advanced Floodplain Management workshop at the Cherokee Nation Osyo Training room sponsored by Oklahoma Floodplain Managers Association (OFMA). Five (5) OFMA speakers presented PowerPoint topics; Bill Smith, P.E. CFM HISINC, L.L.C. presented Advanced Studies on Base Level Engineering, David Caraway, United States Army Corp of Engineers (USACE), Tulsa District presented Section 404 permitting, Monica Cardin, CFM, Del City presented Community Support for Higher Standards on Floodplains, Tom Leatherbee, CFM, Del City presented Ordinance Basics and the National Floodplain Insurance Program (NFIP), Tim Lovell presented Building Resilience and Fortified Homes. Several participants attended the workshop among them were Cherokee Nation's Certified Floodplain Managers (CFM), Ponca Tribe of Oklahoma, Muscogee Creek Nation, and various Floodplain Administrators. Attendees earned six (6) Continuing Education Credits that can be applied to their (CFM) requirements or professional development hours for professional engineers or licensed surveyors. This was a free workshop.



# ITEC NEWS

## Training



The Radon-"What is it?" Training was held at the Cherokee Nation Environmental Programs office on September 13, 2017. There were 9 participants from the Iowa Tribe, Chickasaw Nation, Sac & Fox Nation, Alabama Quassarte Tribal Town, United Keetoowah Band and Cherokee Nation. This training discussed radon entry/behavior, physical/health effects, mitigation overview, radon in Oklahoma, and test kits/monitors/sampling forms.

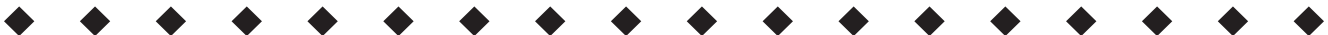


**For more information about ITEC trainings contact:**

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# ITEC NEWS

## Upcoming Events

DATE	EVENT	CONTACT INFORMATION
October 11, 2017	OKRA's 2017 Oklahoma Recycling Conference, Stillwater, OK	<a href="http://www.recycleok.org/okra/oklahoma-events-activities/">http://www.recycleok.org/okra/oklahoma-events-activities/</a>
December 5-7, 2017	2017 National Brownfields Conference, Pittsburg, PA	<a href="https://www.brownfields2017.org/">https://www.brownfields2017.org/</a>
February 28, 2018	Climate Leadership Conference, Denver, CO	<a href="http://www.climateleadershipconference.org/">http://www.climateleadershipconference.org/</a>



**REGISTRATION & HOUSING NOW OPEN!**

**Brownfields 2017**  
SUSTAINABLE COMMUNITIES START HERE

**NATIONAL BROWNFIELDS TRAINING CONFERENCE**  
**DECEMBER 5-7, 2017**  
WITH PRE-CONFERENCE PROGRAMMING ON **DECEMBER 4TH**  
**PITTSBURGH, PA**  
[WWW.BROWNFIELDS2017.ORG](http://WWW.BROWNFIELDS2017.ORG)

## ITEC News

*“The Official Newsletter of the Inter-Tribal Environmental Council”*

*The Cherokee Nation Environmental Program (CNEP) publishes ITEC News each quarter. The mission statement is to protect the health of Native Americans, their natural resources, and their environment as it relates to air, land and water. To accomplish this mission, ITEC provides technical support, environmental services, and assistance in developing Tribal environmental programs to the member Tribes.*

*The viewpoints contained in this newsletter are not necessarily those of the USEPA or the CNEP/ITEC. Free and open discussion of all environmentally related issues is strongly encouraged. We also encourage submission of letters, comments, and articles from readers so as to promote a greater awareness among our people about environmental issues and to foster the free exchange of information, technology, and culturally relevant values of Tribal people.*

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The *ITEC NEWS* gladly accepts and encourages your Tribal environmental information for upcoming issues and events. If you wish to contribute any articles in the next issue or for questions about this newsletter, please call 1-800-259-5376 to contact Karen Dye ([Karen-dye@cherokee.org](mailto:Karen-dye@cherokee.org)).

