



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

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

The Green Thumbs of MCN

Courtesy of: Kristy Lawson, Muscogee Creek Nation

In early 2020, the Muscogee (Creek) Nation (MCN) Natural Resource Conservation District was awarded the USDA Natural Resources Conservation Service Urban Conservation Project grant. Through this, the Conservation District developed a community garden plan for the Elderly Nutrition/Housing in Okmulgee. With help from MCN's Office of Environmental Services, Reintegration Center, and the Daffodil Garden Club, this project has helped to improve elderly citizens' access to healthy, affordable food, while allowing elders to pass down traditional ecological knowledge to the youth through gardening.



In February, the Conservation District and Environmental Services utilized the greenhouse located at the Reintegration Center in Henryetta to establish approximately 100 flats of plants intended for the community garden. While some of the seeds were bought, most were donated by the Kaleo Foundation or collected from pollinator workshops at the Euchee Butterfly Farm in Bixby. MCN Principal Chief David W. Hill and Second Chief Del Beaver visited the greenhouse during the seed planting – impressed with the variety of plants being grown for the project.

Environmental Services had planned to give away any remaining plants at an upcoming Earth Day event; however, due to the COVID-19 virus, this event was postponed. Instead, an effort was made to encourage people to get outside, improve their mental health, and provide access to affordable, healthy food during these difficult times. Over the course of 3 days – with help from MCN's Food Distribution Center, Elderly Nutrition/Housing, Recycle Center, and the Okmulgee Travel Plaza – more than 2,000 plants were distributed to MCN citizens, employees, and residents.

In celebration of the 50th anniversary of Earth Day in 2020, MCN Principal Chief David W. Hill signed a proclamation declaring April as “Earth Month”; further encouraging all MCN citizens and employees to implement practices designed to preserve and protect our environment – shaping the future of our environmental security.





What's in YOUR Watershed?

Courtesy of: Debbie Dotson, Eastern Shawnee Tribe Water Quality Officer

Several very important water quality projects are related to protecting the health of tribal members and the community. The Eastern Shawnee Tribe Water Quality Monitoring Program is active all year, but the pace picks up in the summer months when some specific contaminants become more of a threat to public health.

One project that begins in May each year is bi-weekly bacteria sampling at two recreational sites, Lost Creek at the Powwow grounds and Spring River at Hwy 10 boat access. Both sites are most likely to have Primary Body Contact Recreation (PBCR) activity and that could mean a chance for health risks during times of high concentrations of bacteria.

Twice a week from May to September, samples are taken from each site and analyzed for *E. coli* and *Enterococci*. If results of the analyses are above the state guidelines, a swimming advisory is posted at the site and at tribal complex buildings to let people know that bacterial infection risk is higher at that time.



Justin Morehead & Justin Burris, Flint Branch



Debbie Dotson & Justin Morehead, Spring River

Both *E. coli* and *Enterococci* are common Fecal Indicator Bacteria (FIB) used worldwide to check recreational water sites, including beaches. High concentrations of their presence signal that other bacteria and pathogens are likely, and that caution should be used when in the water. Ingestion of the water can cause intestinal issues, bacteria entering a cut or open area on the body can become infected, water particles in the lungs can cause respiratory problems, and skin contact can sometimes cause a rash depending on the type of bacteria present. Water recreation should be a fun part of summer and not a health risk, so the swimming advisories are to remind people to use good judgement and hygiene practices.

A second public health project that was just implemented in 2019 for the Eastern Shawnee Water Quality Monitoring Program is analyses to detect the presence of blue-green algae on Spring River during the summer months. Harmful Algal Blooms (HABs) are more common in warmer weather, so samples are taken monthly in June-August to check for blue-green algae that could be hazardous to people or animals.

Analyzing fish tissue for metals is an annual project connected to public health and water quality. Fish from Spring River are collected annually either in spring or summer to be analyzed for lead, mercury, arsenic, cadmium, and zinc. The data collected can be compared to note improvements or lack of improvements in levels of contaminants in fish over time.

Data also determines whether an additional fish consumption advisory is needed for a specific contaminant or species affected.

Groundwater monitoring of private wells is a year-round effort for public health. Any private well within 50 miles of tribal jurisdiction is eligible and well water can be tested for bacteria and/or lead at no cost. Environmental Department staff collect the samples and report the analysis to the homeowner as a free service to promote healthier water.

Funding for the Eastern Shawnee Tribe's Water Quality Monitoring Program is provided by US EPA and all surface water data is publicly available. If you have questions about any of these projects, please contact me at ddotson@estoo.net or 918-666-5151 ext. 1044.



Debbie Dotson, Lost Creek



Facts About the “Murder Hornet”



Recent documentation of the [Asian giant hornet \(*Vespa mandarinia*\)](#) in Canada and Washington state have prompted questions and concern about the species.

While invasive non-native species are a real problem and something to be concerned about, right now there’s no cause for panic over Asian giant hornets in North America. Monitoring continues, but the problem was local to a specific area of the Pacific Northwest and seems to have been resolved.

Early detection and rapid response to new species invasions is of critical importance. Eradication of new non-native invasive species is only truly possible when the problem is identified and dealt with early enough. Monitoring continues, but hopefully that is the case with the Asian giant hornet in North America.

Asian Giant Hornets – The Facts

In the fall of 2019, a nest of Asian giant hornets, native to Eastern Asia, was found and eradicated on Vancouver Island, Canada. Individual hornets were also found and dispatched on the U.S. side of the border in Washington state.

Media headlines that referred to these insects as “murder hornets” recently went viral, causing mass concern in North America about the species.

According to entomologists involved, however, there have been no verified reports of the species in 2020 and although monitoring efforts continue, there currently is no cause to believe that any of these hornets are still present in Canada or the U.S.

No verified sightings have been recorded of the species in the U.S. outside of Washington state. If you are in that region and think you have seen an Asian giant hornet, [report it to the Washington State of Department of Agriculture here](#). If you are not in that region and think you’ve seen one, it is most likely a different species.

Threats Posed

Non-native invasive species weaken ecosystems and are the second leading cause of species endangerment behind habitat loss.

A 2005 study estimated that the economic damages associated with invasive species in the United States reached approximately \$120 billion/year.

The Asian giant hornet preys on honey bee hives and is a concern for the commercial honey bee industry should it become established in North America.

Asian giant hornets can deliver a painful sting and due to their size and amount of venom injected can cause human fatalities, although this is rare. They can also bite with their mandibles. Generally, however, the species ignores humans unless its nest is disturbed.

Species ID and Behavior

The world’s largest hornet species, the Asian giant hornet can grow to two inches long. It has a **distinctive look**, with a large, yellow-orange head, long teardrop-shaped eyes, large mandibles and orange and black stripes.

Hornets are a type of wasp. All female wasps can sting, but only attack humans defensively.

Some wasp species are social and form hives which they will defend by stinging when threatened. Other species are solitary and use their stinger to procure food, rarely defensively.

Other large wasp species that may be confused with the Asian giant hornet are the European hornet, introduced to the U.S. in the 1800s, and the native cicada killer wasp.

Managing Hornets at Home

Hornets and other wasp species play important ecological roles as pollinators, predators and parasites of pests, and are part of the greater food web. **We should make the effort to co-exist with native species.**

Here are some helpful tips:

- 1) Avoid getting close to any wasp, never swat at a wasp and never approach a nest hive.
- 2) If you have a wasp nest that is in close proximity to high-traffic areas around your home that is a cause for concern, contact a professional pest removal company to safely remove it.
- 3) If you have a known allergy to wasp stings, carry an epinephrine auto-injector (e.g., EpiPen) and follow best practices for its use.
- 4) Avoid blanket spraying of pesticides, which can impact non-target species such as bees, butterflies and other beneficial insects.



In most cases, if you respect their space and let them go about their business, people can peacefully co-exist with wasps.

<https://blog.nwf.org/2020/05/facts-about-the-murder-hornet/>



Carbon Monoxide

Carbon monoxide, or “CO,” is an odorless, colorless gas that can kill you.

Where is CO found?

CO is found in fumes produced any time you burn fuel in cars or trucks, small engines, stoves, lanterns, grills, fireplaces, gas ranges, or furnaces. CO can build up indoors and poison people and animals who breathe it.

What are the symptoms of CO poisoning?

The most common symptoms of CO poisoning are headache, dizziness, weakness, upset stomach, vomiting, chest pain, and confusion. CO symptoms are often described as “flu-like.” If you breathe in a lot of CO it can make you pass out or kill you. People who are sleeping or drunk can die from CO poisoning before they have symptoms.



Who is at risk from CO poisoning?

Everyone is at risk for CO poisoning. Infants, the elderly, people with chronic heart disease, anemia, or breathing problems are more likely to get sick from CO. Each year, more than 400 Americans die from unintentional CO poisoning not linked to fires, more than 20,000 visit the emergency room, and more than 4,000 are hospitalized.

How can I prevent CO poisoning in my home?

- Install a battery-operated or battery back-up CO detector in your home and check or replace the battery when you change the time on your clocks each spring and fall. Place your detector where it will wake you up if it alarms, such as outside your bedroom. Consider buying a detector with a digital readout. This detector can tell you the highest level of CO concentration in your home in addition to alarming. Replace your CO detector every five years.
- Have your heating system, water heater, and any other gas, oil, or coal burning appliances serviced by a qualified technician every year.
- Do not use portable flameless chemical heaters indoors.
- If you smell an odor from your gas refrigerator have an expert service it. An odor from your gas refrigerator can mean it could be leaking CO.
- When you buy gas equipment, buy only equipment carrying the seal of a national testing agency, such as Underwriters' Laboratories.
- Make sure your gas appliances are vented properly. Horizontal vent pipes for appliances, such as a water heater, should go up slightly as they go toward outdoors, as shown below. This prevents CO from leaking if the joints or pipes aren't fitted tightly.
- Have your chimney checked or cleaned every year. Chimneys can be blocked by debris. This can cause CO to build up inside your home or cabin.



- Never patch a vent pipe with tape, gum, or something else. This kind of patch can make CO build up in your home, cabin, or camper.
- Never use a gas range or oven for heating. Using a gas range or oven for heating can cause a build up of CO inside your home, cabin, or camper.
- Never burn charcoal indoors. Burning charcoal – red, gray, black, or white – gives off CO.
- Never use a portable gas camp stove indoors. Using a gas camp stove indoors can cause CO to build up inside your home, cabin, or camper.
- Never use a generator inside your home, basement, or garage or less than 20 feet from any window, door, or vent.
- When using a generator, use a battery-powered or battery backup CO detector in your home.

<https://www.cdc.gov/co/faqs.htm>





American Wetlands

The EPA and our partner federal, state, tribal, local, non-profit and private sector organizations celebrate the vital importance of wetlands to our Nation's ecological, economic, and social health. Wetlands help improve water quality and supply, reduce flooding and provide critical habitat for plants, fish and wildlife.

Learn about wetlands. This is a great time to better understand what a wetland is, where wetlands can be found, and the importance of wetlands in your community. [Read about what some State and Tribes are doing to protect their wetlands.](#)



Explore a wetland near you. Wetlands occur in all 50 states, so there is a good chance a scenic wetland exists nearby for you to visit and explore during American Wetlands Month and throughout the year! To find a wetland near you, consult your local parks department, state natural resource agency or the [United States Fish and Wildlife Service's National Wetlands Inventory.](#)

Why Celebrate Wetlands?



Wetlands are renowned for their ability to remove excess nutrients, toxic substances, and sediment from water that flows through them, helping to improve downstream water quality and the overall health of waters in our communities. Studies indicate that, depending on the type of wetland, the season, and other factors, wetlands can retain significant percentages of pollutants such as nitrates, ammonium, phosphorus, and sediment loads. Natural wetlands have also been effective in removing harmful contaminants such as pesticides, landfill leachate, dissolved chlorinated compounds, metals, and excessive storm water runoff. They are so effective at improving water quality they have been referred to as the "kidneys" of a watershed.

Wetlands can absorb excess rain or river water so they protect against flooding. They are a form of [green infrastructure](#) that also provides recreational opportunities and serves as important habitat for many wildlife species. They are both an effective and economical way to enhance community safety while improving quality of life.

<https://www.epa.gov/wetlands/may-american-wetlands-month>

What is a Wetland?

Definition of a Wetland

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils.

<https://www.epa.gov/wetlands/what-wetland>

Other Wetland Resources:

[Learn About Wetlands](#)

[Funding and Grants](#)

[Wetland Restoration Grants](#)

[Wetlands Fact Sheet](#)





Upcoming ITEC Trainings:

Phase I Assessment Training—July 15, 2020, this will be a webinar training.

Stream Ecology/Stream Characterization Training - Rescheduled, date to be determined.

Drone Training— Date to be determined.

More information about trainings will be sent out at a later date.



For more information about ITEC trainings contact:

Karen Dye

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Email: Karen-dye@cherokee.org

ITEC on the web

Check out the ITEC webpage for information on upcoming events, training and newsletters.

Please visit us at:

www.itecmembers.org





UPCOMING EVENTS

DATE	EVENT	CONTACT INFORMATION
TBA	2020 Tribal Lands & Environment Forum	webinars
July 27-August 25	25th Annual ITEC Conference	webinars
August 11-13, 2020	Region 6 Brownfields Conference, Dallas, TX	
April 2020	National Brownfields Conference, Oklahoma City, OK	

Mark Your Calendar!

**25th Annual
ITEC Conference**
July 27– August 25, 2020
Webinars

More information coming soon....



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 1-918-453-5109 or contact Karen Dye at: Karen-dye@cherokee.org.

