PBPN TO RESTORE WETLANDS-

Original article written by Michelle Simon with PEP contributing information

The Prairie Band Potawatomi Nation (PBPN) and the Natural Resources Conservation Service (NRCS) commemorated the approval of an Agricultural Conservation Easement Program-Wetland Reserve Easement (ACEP-WRE) contract on Monday, December 17, 2018, in an event held at the Prairie Casino & Resort.

The contract approval marks a momentous event in Kansas; this is the first Tribal Wetland long-term contract established in Kansas, and one of only a handful throughout the United States. PBPN has entered into a 30-year contract with NRCS to restore the functions and values of an existing wetland located on the PBPN Reservation.

"The PBPN is thankful for the opportunity to return this portion of land back to its natural wetland condition and for the area's high potential to provide environmental education. We look forward to having our youth and the community visit the site and experience direct learning about the unique attributes a wetland provides for water resources and the environment," said Joseph Rupnick, PBPN Chairman.

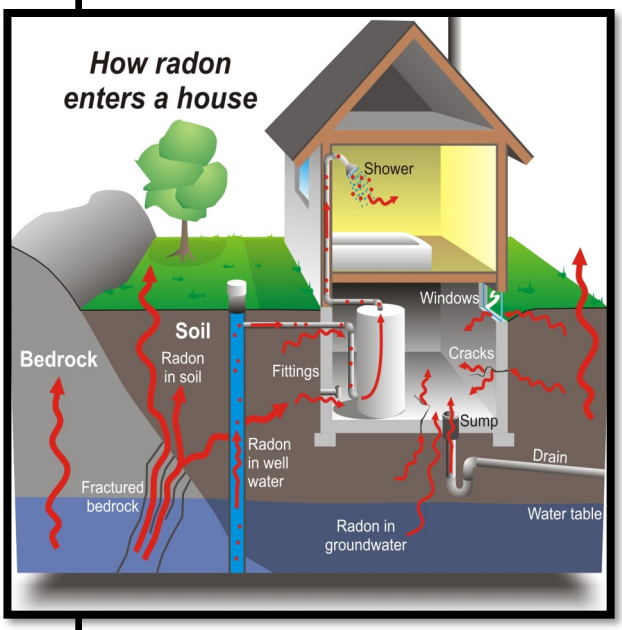
The wetland restoration area consists of 31.7 acres. Tribal Council signed a resolution with the "goal to conserve, enhance, and restore the quantity, quality, and biological diversity of wetlands within the PBPN Reservation", adopted on November, 5, 1996 signed by Chairperson, Mamie Rupnicki. Virginia LeClere, Environmental Manager, said that over the course of many years, and many staff contributing to the project, it is now a reality.

The first phase of the project will begin in early spring of 2019. The PBPN Land's and Road/Bridge Departments will start excavation and groundwork to create dikes, berms, and pools as designed by consulting engineers.

The area will also be used for educational outreach and provide opportunities for hunting, trapping, and recreational bird watching. A walking path will be established for visitors to reach the center area of the wetlands in order to observe the natural wildlife in their restored habitat. Wetlands also aid in water quality improvement by filtering out pollutants before they enter surface waters. We all drink water from surface and ground water.

AIR PROGRAM UPDATES PAGE

RADON



The Air Program partnered with PBPN Housing Department to conduct Indoor Air Quality (IAQ) Assessments and radon testing in tribal homes. Radon and IAQ awareness plays an important role in addressing human health by identifying and addressing environmental factors. The Air Program has tested 13 PBPN Housing homes for radon with one needing a radon mitigation system. With the radon mitigation system was installed, the radon level went from 7.9 pCi/l to 0.7 pCi/l which is well below EPA's 4.0 pCi/l action level.

Picocuries per **liter** (**pCi/L**) is a unit for measuring radioactive concentrations. The curie (Ci) unit is the activity of 1 gram of pure radium 226. Pico is a scientific notation term which means 110. A typical value for radon in the living spaces of a US home is 1 **pCi/L**.

INDOOR AIR

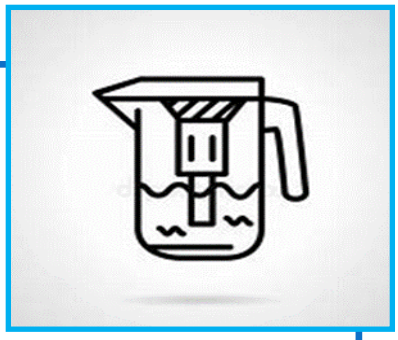
Did you know there is a proper way to stack wood to help it season, keep it dry, mold and disease free? Seasoning firewood includes multiple components. These include proper stacking to increase air flow and site selection – never stack against or by surrounding structures. Strategically stacking and storing wood will help keep wood dry and properly season green wood. Fire wood kept in a pile won't dry (season) or burn well.

EPA's Burn Wise Tips:

- Season all fire wood. Wood should be split, securely stored/covered, and aged for at least 6 months.
- Choose the right firewood. Hardwoods are the best. Avoid treated wood or wood that is wet or moldy. Treated wood may contain **CREOSOTE, a wood preservative that is HIGHLY CARCINOGENIC** And some molds such as ***Stachybotrys chartarum*** are harmful if ingested via inhalation.
- Don't let fire smolder. Smoldering overnight reduces air supply and does little for heating but increases air pollution.
- Clean ashes out. Excess ashes can clog air intake and vents. Reducing efficiency.
- Keep your chimney clean. Helps provide good draft and reduces risk of chimney fire.

FYI: PBPN cut and delivered 130 loads of wood to elders and other applicants during Nov. '18 – part. Jan. '19. PBPN Building Maintenance selects some wood types based on invasiveness. Removing invasive trees helps other trees flourish like oak and walnut. ***A BIG THANKS TO BUILDING MAINTENANCE!!***

THE USE OF GRANDULATED ACTIVATED CARBON TO REMOVE COMPOUNDS IN DRINKING WATER



"Activated carbon is commonly used to adsorb natural organic compounds, taste and odor compounds, and synthetic organic chemicals in drinking water treatment. Adsorption is both the physical and chemical process of accumulating a substance at the interface between liquid and solids phases. Activated carbon is an effective adsorbent because it is a highly porous material and provides a large surface area to which contaminants may adsorb."- EPA

ARE ALL CARBON FILTERS EQUALLY EFFECTIVE?

No. Activated carbon filters are usually rated by the size of particles they are able to remove, measured in microns, and generally range from 20 microns (least effective) down to 0.5 microns (most effective). The two most important factors affecting the efficiency of activated carbon filtration are the amount of activated carbon in the unit and the amount of time the contaminant spends in contact with it. The more carbon the better. Particle size also affects contaminant removal rates. The most common carbon types used in water filtration are bituminous, wood, and coconut shell carbons. While the coconut shell carbon typically costs 20% more, it is generally regarded as the best of the three.

2018 Public Record Update

The PBPN's Tribal Response Program focuses on identifying and cleaning all illegal dump sites, educating the public about contaminated sites and increasing emergency preparedness. As part of our responsibility, we're required to develop and regularly update a Public Record. Our Public Record includes an inventory of contaminated sites or potentially contaminated sites. This record is made available to all and provides the general public an opportunity to review and participate in our program. If you would like to review the 2018 public record please contact Kyle Miller at 785.966.8033 or follow the link: https://www.pbpindiantribe.com/wp-content/uploads/2018/12/PBPN-Tribal-Response-Program-Public-Record-2018-update.pdf

JUST FOR THE FUN OF IT

How do you cut the sea in half?

- With a sea saw!

What did the tree wear to the swimming pool?

- Swimming trunks!

Why is it hard to play cards in the jungle?

- There are too many Cheetahs!

RIVER ON FIRE!!

The Cuyahoga River has caught fire a total of 13 times dating back to 1868. But the fire in 1969, helped spur action that ultimately led to the passage of the **Clean Water Act in 1972.**

SOLID WASTE UPDATES

⇒ Solid Waste Disposal Operators will only pick up the waste inside the issued container and **ONE BAG outside of the container** at the regular monthly rate.

⇒ Bags and boxes holding recyclables **need to be closed**. Tying bags and closing boxes, holding recyclables, will help contain materials during pick up.

⇒ **NO Glass in recycling bins**. The Solid Waste Program will not pick up glass during recycling routes. Glass only can be dropped off at the recycling center 9835 142nd.

Developing Community Waste Strategies

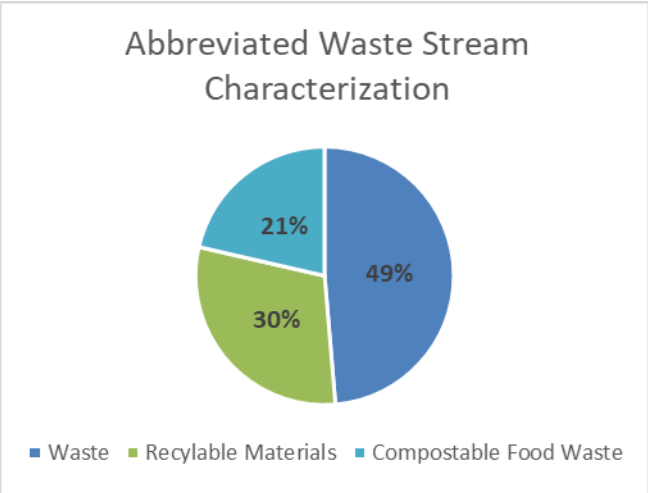
The PEP Waste Program is currently developing their 5-year Integrated Waste Management Plan (or ISWMP). The ISWMP will serve as a tool for implementing an effective Tribal Solid Waste Program, and for the planning and development of our future solid waste activities. The Plan will incorporate involvement from stakeholders and will provide a framework for systematically reviewing options and determining priorities of the Tribe's solid waste management system.

This will be our third ISWMP. Under our two previous plans, we established and achieved goals that included; closing illegal/poorly managed dumpsites, developing curbside recycling and waste services, and reducing food waste through composting. Key goals within the new (2019-2023) plan include increasing financial sustainability through improved asset management and assignment of customer responsibility.

The waste stream characterization is a major component of our ISWMP development. We study the composition and determine how much paper, glass, food waste, etc. is discarded in the waste stream. This information helps in planning how to reduce waste, set up recycling programs, and conserve money and resources. PEP staff conducted a waste stream characterization in November 2018, pulling weekly waste containers from our residential trash service customers and sorting/separating into categories. From this study we determined 51% of the materials wasted and sent to the landfill have the potential to be recycled or composted. While many of our customers are successfully recycling and composting, some are not, and we are still sending too much material to the landfill.
The summary is depicted in the charts below.

Waste staff hand-sorted and weighted the waste by category

Category	Weight (lbs.)
Waste	693
Recyclable materials (cardboard, tin, aluminum, paper)	426
Compostable food waste	305
TOTAL	



PEP Wraps Up Climate Workshops

On December 18, 2018, the Division of Planning and Environmental Protection wrapped up the Prairie Band Potawatomi Nation Tribally-Based Climate Change Communication workshop series. Beginning in September of 2017, PEP began holding a series of workshops that aimed at communicating climate change to the PBPN community. Each workshop featured a speaker on climate change impacts in Northeast Kansas and a theme regarding weather and climate. The kickoff event was held September 22-24, 2017 at the PBPN annual pow wow, where community members were asked to fill out questionnaires regarding their knowledge and concerns about climate change. These education/outreach questionnaires were intended to gauge whether community members felt informed about climate change impacts in the NE Kansas region.

The first workshop was held on October 30, 2017 and Mary Knapp, KSU Climatologist, spoke about the differences in weather and climate, as well as the role of citizen science in data collection. She also shared different sources for Kansas weather and climate data, specific to our NE region. The second workshop was held on December 4, 2017 where participants informally discussed basic climate change topics, such as: natural climate change factors (solar radiation, planetary orbit, tilt of the Earth), unnatural climate change factors (carbon emissions, greenhouse effect, global warming). The third workshop was held on December 20, 2017 and featured Mark Junker from the Sac & Fox Nation in Kansas and Nebraska, and Dr. Daniel Wildcat, author of *Red Alert! Saving the Planet With Indigenous Knowledge.* Mark Junker talked about his work with the Sac & Fox tribe in linking climate change impacts into their tribal Pre-Disaster Mitigation Plan. Dr. Wildcat spoke about tribal communities being the front lines of climate change impacts. The final workshop was held on December 18, 2018 and we had experts from USGS talk about the Soldier Creek watershed and historical flow trends.

Overall, workshop participants ranged from 20-35, with an average of 25 participants per workshop. This was a pretty good turnout for our community. Virginia LeClere, Environmental Manager, commented "We were really excited to see the diversity in workshop participation. Community leadership was well represented with elders, Tribal Council representatives, Nation employees, young parents and even youth leaders attending the workshops. We are hoping, as community leaders, they'll carry on the knowledge to their own audience." PEP hopes to continue our climate change work and engage the community as much as we can. Thank you to everyone who helped make these workshops successful and we hope you enjoyed them.

HERBICIDE: DICAMBA EFFECTS ON HUMANS & ENVIRONMENT

During a July 29, 2017 call with EPA officials, a dozen state weed scientists expressed unanimous concern that dicamba is more volatile than manufacturers have indicated, according to several scientists on the call. Field tests by researchers at the Universities of Missouri, Tennessee and Arkansas have since found that the new dicamba herbicides can volatilize and float to other fields as long as 72 hours after application.

The backlash against dicamba has spurred lawsuits, state and federal investigations, and one argument that ended in a farmer's shooting death and related murder charges.

Leaves will curl downward and in on themselves like tiny, broken umbrellas. It's the telltale mark of inadvertent exposure to a controversial herbicide called dicamba.
– *Washington Post*

Soldier Creek Watershed Studies

Water is one of our Tribe's most important natural and cultural resources. Protecting aquatic resources and adjacent terrestrial resources has biological, cultural, and economic benefits, in large part because fish and wildlife are important to our way of life. The main aquatic resources within the Reservation are Big and Little Soldier Creeks, and smaller streams that flow into them, which together make up the Soldier Creek Watershed. Historic changes in land use and on-going agricultural practices have impacted these resources, resulting in problems like streambank erosion, more sediment, poor water quality, and stream corridor and wetland habitat loss.

PBPN's Division of Planning and Environmental Protection is partnering with the US Army Corps of Engineers (USACE), the Bureau of Indian Affairs (BIA), and the consulting firm Ad Astra, to prepare watershed-based plans for Tribal lands. Planning efforts include a Land and Water Management Plan and a Watershed Feasibility Study. The Management Plan will help guide staff and Tribal leadership to make sound management decisions that protect the quality and quantity of natural resources, particularly as our climate changes. The Feasibility Study will identify, evaluate and recommend appropriate, coordinated, and realistic solutions to water resource-related problems, including habitat restoration and streambank stabilization projects that will protect water and terrestrial resources, improve natural resource-based cultural resources, and improve water quality.

These planning efforts are scheduled to be completed by the end of 2020.

PRAIRIE BAND POTAWATOMI NATION's DIVISION OF
PLANNING & ENVIRONMENTAL PROTECTION

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"Plans to protect air and water, wilderness and wildlife are in fact plans to protect man"- Stewart Udall, former congressman and decorated military veteran.