

Rez Recycler

Low cost & No cost ways to save on your winter energy bill

Special tips for holiday lighting

- Dispose of older incandescent lights and buy new LED holiday lights. Older strings of incandescent holiday lights can use up to 99 percent more energy than new LED light strings. Plus, the wire insulation on older lights can erode and pose a fire hazard.
- Turn on your holiday lights for no more than 6 hours per day (to keep energy use down). Purchase a lighting timer to turn lights on and off automatically.
- Always unplug holiday lights before going to bed or leaving the house.
- Don't overload your circuits. Check your fuse box or circuit breaker panel to see how much load you can add to your house, stay within these limits to reduce the risk of fire.
- Take lights down promptly after the holidays.



Rez Hike

The Division of Planning and Environmental Protection and PBPN Diabetes Prevention Program recently coordinated two hiking events on the Prairie Band Potawatomi reservation. The events were held on November 1, 2009 and November 8, 2009. They were led by Mary and Don Don LeClere. Both events began on Sunday mornings, with all participants rallying at the Boys & Girls Club. Logistics such as routing, maps, and schedules were reviewed and discussed. Participants then carpoled to the trail starting point.

Over 30 youth and adults participated in the November 1st hike. The selected trail was in the northwest part of the Reservation near Crow Creek. Participants walked an approximate 4 miles through wetlands, creek banks and crossings, and timber areas. Adults stopped along the way to point out various plants, (including one particular traditional plant) to the youth hikers. A communal lunch break provided a great opportunity for visiting, sharing healthy snacks, and rest for the

Mission Statement

To develop and administer a Planning & Environmental Protection Program that provides all appropriate planning, environmental services and protection of health and wildlife habitats for the Potawatomi Reservation jurisdiction in a manner that is compatible with the Potawatomi culture.

legs.

Over 20 youth and adults participated in the November 8th hike. The selected trail was again in the northwest part of the Reservation through the upper elevations. While driving to the trail starting point, one hiker spotted a golden eagle over the bridge. Participants walked approximately 5-6 miles in mostly open hilly areas. Along the way, hikers noticed a bald eagle soaring across the sky. Lunch was held on top of a big hill and again it was a nice time to rest, visit, and share.

The Division of Planning and Environmental Protection and the PBPN DPP both had separate, but equally beneficial goals in coordinating these events. The Division of Planning hoped to inspire an appreciation for the outdoors, nature, and love for our wonderful Reservation lands. The PBPN Diabetes Prevention Program aimed to encourage exercise, healthy lifestyles, and foster the support systems between community members as they strive for good health.

**Hike route
found on
Pg. 3**

Regional Ambient Fish Tissue Monitoring Project

On November 10, 2009 Stanley Holder, Tribal Specialist with EPA Region 7 Kansas City, KS and Sharon Bosse, Environmental Technician with the PBPB rafted the Big Soldier Creek to catch bottom feeder fish and predator fish. The overall goal for the project is to provide data to the PBPB on the presence or absence of contaminants in fish tissue. This data maybe useful to the environmental director and others concerned about human health and the environment in Indian Country when making natural resource decisions. Four metals; arsenic, cadmium, mercury and lead were originally the contaminants the project was to analyze for. Since then pesticides have been added to the compounds of interest. The results from this sampling project will be in June 2010.



Introducing....

Myron Shield
Environmental/
GIS Technician

Myron J. Shield Jr., is the new Environmental/GIS Technician. Myron is a member of the Crow Tribe from Crow Agency Montana, which is located in the South Eastern part of Montana. Myron comes from a very traditional family, attends Powwows and Native American Church Meetings and also an active member of the Oglala Sioux Sundance Ceremony. He has recently graduated from Haskell Indian Nations University in Lawrence Kansas with a Bachelors Degree in Environmental Science with a BIG focus in Geographical Information Systems (GIS).

Environmental/GIS Technician requires Myron to coordinate the ambient air quality, indoor air, and GIS/GPS programs. These programs include; grant development, implementation, and reporting. Also, will be developing and maintaining Geographic Information System (GIS) database and mapping information to support grant projects, emergency management and other Tribal needs for the Reservation and will be spending time in the field applying his knowledge with Global Positioning System (GPS) for field survey work supplemental to the tribal GIS database and air quality monitoring and assessment procedures.

Myron has accomplished several feats in his time as a college undergraduate student at Haskell Indian Nations University. He created a project called "Site Suitability for Wind Turbines on the Crow Reservation", using ArcGIS and Data Collecting tools; the project was aimed toward lowering the electricity bill for the Crow Tribal members and to help the Crow Tribal officers and members to understand the specifications and knowledge of the Wind Turbine Farm industry. With his knowledge in ArcGIS software, he plans on helping the Prairie Band Potawatomi Nation understand the possibilities it has to offer.

To the right: Sharon Bosse, PBPB Environmental Technician and Stanley Holder, US EPA Tribal Specialist holding Carp that they caught in Big Soldier Creek.



Indoor Air Pollution

Indoor air pollution is the presence of one or more contaminants indoors that carry a certain degree of human health risk. Indoor air issues may be traced to the beginning of civilization. Prehistoric records note the problem of smoke in caves. However, over the last three decades the public has become more aware of indoor air pollution. Various studies show that people spend 65 to 90 percent of their time indoors; 65 percent of that time is spent at home. Field studies of human exposure to air pollutants indicate that indoor air levels of many pollutants may be two to five times and on occasion more than one hundred times, higher than outdoor levels.

What causes Indoor Air Problems? Indoor pollution sources that release gases or particles into the air are the primary cause of indoor air quality problems in homes. Inadequate ventilation can increase indoor pollutant levels by not bringing in enough outdoor air to dilute emissions from indoor sources and by the not carrying indoor air pollutants out of the home. High temperature and humidity levels can also increase concentrations of some pollutants.

There are many **Pollutant sources** of indoor air pollution in any home. These include combustion sources such as oil, gas, kerosene, coal, wood, and tobacco products; building materials and furnishings as diverse as deteriorated, asbestos-containing insulation, wet or damp carpet, and cabinetry or furniture made of certain pressed wood products; Products for household cleaning and maintenance, personal care, or hobbies; central heating and cooling systems and humidification devices; and outdoor sources such as radon, pesticides, and outdoor air pollution.

The **amount of ventilation** can make a big difference. If too little outdoor air enters a home, pollutants can accumulate to levels that can pose health and comfort problems. Unless they are built with special mechanical means of ventilation, homes that are designed and constructed to minimize the amount of outdoor air that can “leak” into and out of the home may have higher pollutant levels than other homes. Because some weather conditions can drastically reduce the amount of outdoor air that enters a home, pollutants can build up even in homes that are normally considered “leaky.”

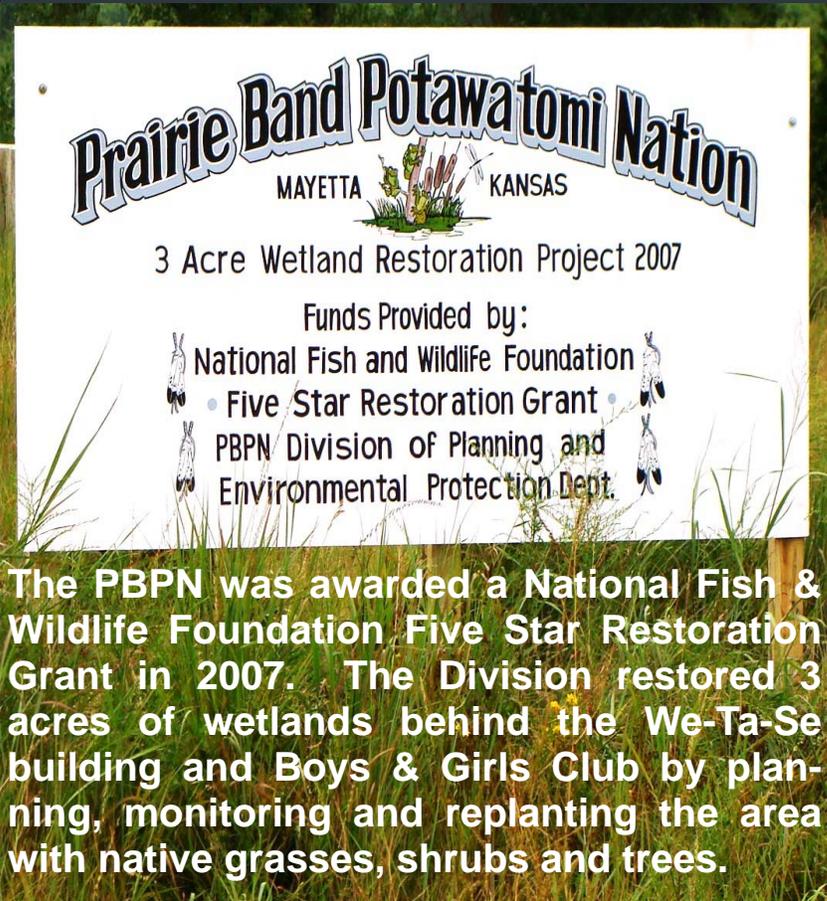
Outdoor air will help maintain some of these levels when entering a house.

Outdoor air enters and leaves a house by: infiltration, natural ventilation, and mechanical ventilation. In a process known as infiltration, outdoor air flows into the house through openings, joints, and cracks in walls, floors, and ceilings, and around windows and doors. In natural ventilation, air moves through opened windows and doors. Air movement associated with infiltration and natural ventilation is caused by air temperature differences between indoors and outdoors and by wind. Finally, there are a number of mechanical ventilation devices, from outdoor-vented fans that intermittently remove air from a single room, such as bathrooms and kitchen, to air handling systems that use fans and duct work to continuously remove indoor air and distribute filtered and conditioned outdoor air to strategic points throughout the house. The rate at which outdoor air replaces indoor air is described as the air exchange rate. When there is little infiltration, natural ventilation, or mechanical ventilation, the air exchange rate is low and pollutant levels can increase.

Biological Contaminates are Living organisms or their products that can be hazardous to animal or human health if inhaled, swallowed, or otherwise absorbed into the body.

Some Biological Contaminants include bacteria, molds, mildew, viruses, animal dander and cat saliva, house dust mites, cockroaches, and pollen. There are many sources of these pollutants. Pollens originate from plants; viruses are transmitted by people and animals; bacteria are carried by people, animals, and soil and plant debris; and household pets are sources of saliva and animal dander. The protein in urine from rats and mice is a potent allergen. When it dries, it can become airborne. Contaminated central air handling systems can become breeding grounds for mold, mildew, and other sources of biological contaminants and can then distribute these contaminants through the home. Some of the Health effects from Biological Contaminants trigger allergic reactions, including hypersensitivity pneumonitis, allergic rhinitis, and some types of asthma. Infectious illnesses, such as influenza, measles, and chicken pox are transmitted through the air. Molds and mildews release disease – causing toxins. Here are some of the symptoms of health problems caused by biological pollutants include sneezing, watery eyes, coughing, shortness of breath, dizziness, lethargy, fever, and digestive problems. Here are some ideas on how to reduce exposure to biological contaminants. Install and use exhaust fans that are vented to the outdoors in kitchens and bathrooms and vent clothes dryers outdoors. These are actions can eliminate much of the moisture that builds up from everyday activities. There are exhaust fans that can produce little noise, which most people prefer. Exhaust fans reduce levels of organic pollutants that evaporate from hot water used in showers and dishwashers.

Five Star Restoration Grant



(The wetlands sign was painted by Lester Arnold, Mayetta)

The PBPN was awarded a National Fish & Wildlife Foundation Five Star Restoration Grant in 2007. The Division restored 3 acres of wetlands behind the We-Ta-Se building and Boys & Girls Club by planning, monitoring and replanting the area with native grasses, shrubs and trees.

\$\$\$ Home Energy Savers \$\$\$\$

Cool new home energy monitors can help your family save money throughout the year. These compact, hand-held devices will allow you to monitor your home electric use in real-time. Setting up the unit first requires **wireless** synchronization with your outdoor electric meter or **wired** connectivity to your indoor electric, depending on your brand of unit. Once the monitor is synchronized, it is ready to use. Most units will display your current usage in dollars,

your month-to-date usage (or monthly bill prediction), and the outdoor temperature to assist with your home heating/cooling decisions.

There are several products available. They range in costs from \$90.00 - \$400.00. The monitors also range in complexity. Some of the more pricey units can provide homeowners with off-site monitoring capabilities. For example, some parents have teenage children at home during the day. Parents can log into their computer at work and monitor their home electric use. They can then call their teenager at home and remind them to turn off the lights, stereo, T.V., computer, etc. Other units can be downloaded as an iPhone application and users can monitor and control some electric use (lights, heat/cool controls) from their mobile iPhone.

Product advertisements on average pitch a 20% potential for reduction in home energy costs. If your electric bill is \$100.00/month, you have a potential savings of \$20.00/month. Online research of various products provide useful consumer reviews. Many reviews are focused on the product usability and set-up. It is always a good idea to research the product reviews.

Here are a few helpful websites:

Planet Green: How to Choose a Home Energy Monitor <http://planetgreen.discovery.com/tech-transport/pick-home-energy-monitor.html>

Google Product Search <http://www.google.com/products> Search: Home Energy Monitor

A great Septic System treatment

Using Rid-X once a month will help keep your septic tanks flowing at a good consistency.

Rid-X is a septic system treatment that contains billions of 100% natural active bacteria and enzymes to break down household waste. By adding RID-X, you restore the delicate balance of beneficial bacterial and enzymes needed to help keep your system operating at full efficiency. Each box and bottle of RID-X contains the following ingredients scientifically proven to break down household waste:

- Cellulase: Toilet paper, vegetable matter, and some foods
- Lipase: Fats, oils and grease
- Protease: Proteins
- Amylase: Starches

Using Rid-X will not unclog your drain/pipes or toilet. But when used regularly, RID-X liquid can help break down organic build-up in your pipes, to help prevent clogs before they happen.



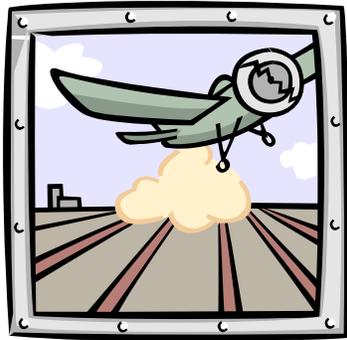
Noxious Weed Spraying '09

The goal of the PBPB noxious weed spraying program is to prevent the introduction of new species of noxious weeds and invasive plants, and to reduce the spread of existing noxious weed infestations to minimize the impacts on lands within the Potawatomi Reservation. To achieve this, the PBPB provides information to raise public awareness of the impacts on invasive plants and assist in the coordination of control efforts by the PBPB Lands Department and Division of Planning and Environmental Protection.

Method of Application:

- Ground – ground spraying will be done by the PBPB Land Department with their spraying equipment in areas adjacent to home sites, cluster sites, government centers or other populated areas.

- Aerial – some tracts will be sprayed by plane. If there are home sites within this distance, the area near the home site will be sprayed by a tribal ground rig. Numerous tracts are unable to be sprayed with a ground rig due to terrain, rocks, trees, creeks and other hazards.



Areas not sprayed – Large areas of trees, large pond and creeks,

home sites, building areas, roads, etc.

Dates to be sprayed: November through December 2009, weather permitting.

Musk thistle is an aggressive weed that occurs in pastures, rangeland, roadsides and non-crop areas. It is a biennial weed. Because musk thistle reproduces solely from seed, the key for successful management is to prevent seed production. Applying herbicides to musk thistle rosettes in spring or fall help control this problem.

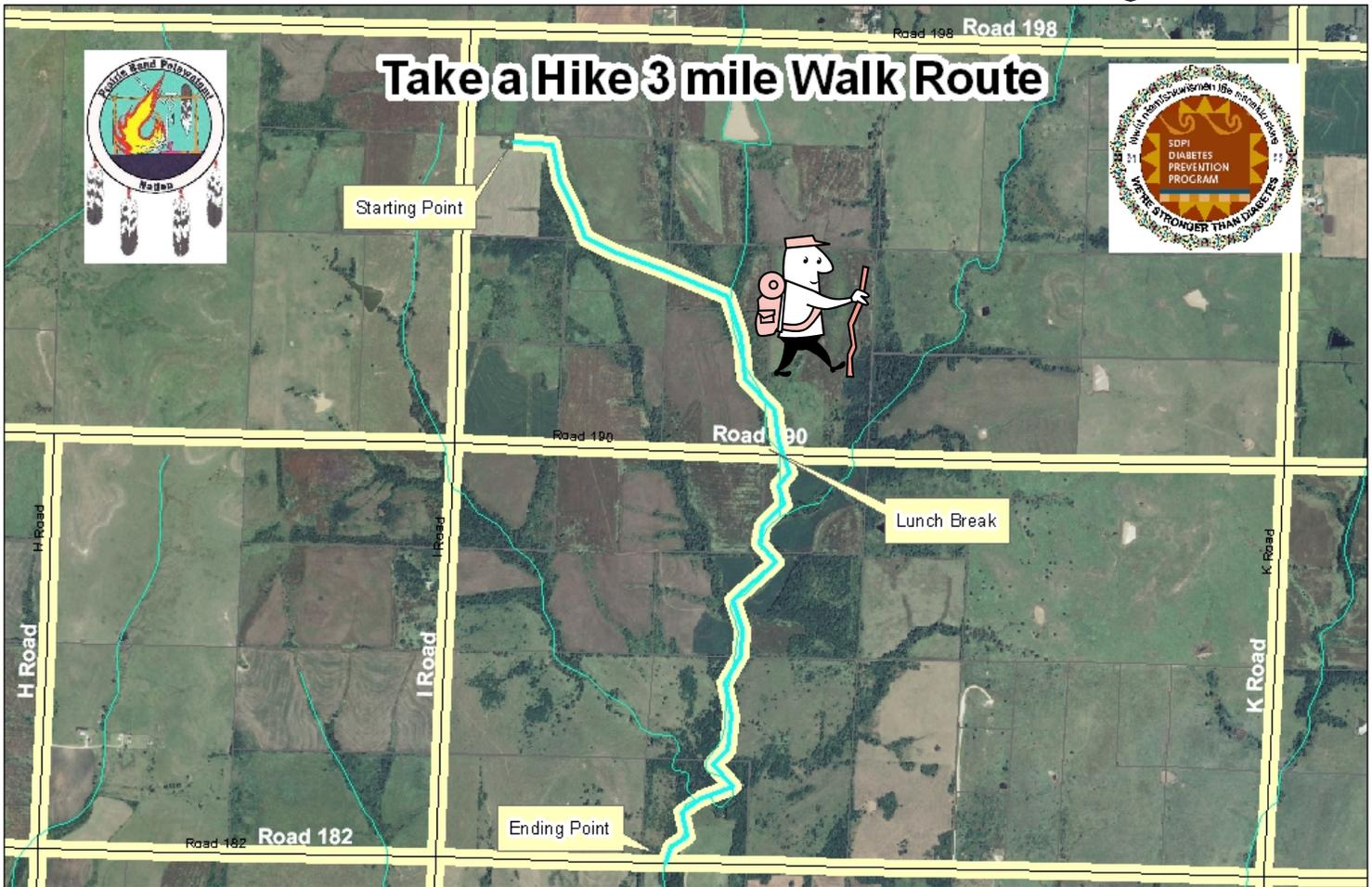
Sericea Lespedeza weed was introduced into the US in the 1930's to control soil erosion and provide cover and food for wildlife. It was not recognized as a problem weed until the 1980's. It's highly competitive and invasive nature, makes it a threat on native rangeland and cool season pastures. Sericea Lespedeza is a noxious weed on the reservation. The best approach to control is early detection, isolation of infected areas, and control of individual plants with approved herbicides. Normal management practices of grazing and prescribed burning will not be effective in preventing the spread of sericea.



Top: Musk Thistle

Middle and Left:
Sericea Lespedeza





Legend

- stream
- Roads

0 0.25 0.5 1 Miles

Division of Planning and Environmental Protection
By Myron J. Shield Jr.

Below: The Division of Planning & Environmental Protection and the PBPN Diabetes Prevention Program



Curbside Recycling & Disposal Program

Currently the Solid Waste staff is in preparations to start the tribally-operated "Curbside Recycling and Disposal Program". We are currently planning to implement this program within three initial phases. Phase 1 included distribution of costs to the appropriate departments within the Nation's workforce. We have successfully completed phase 1 and now are ready to move forward to phase 2 in January 2010, which includes the initiation of the recycling and disposal service to the initial 250 Reservation residences. The initial 250 Reservation residences will include the tenants residing in the cluster homes only. While phase 3 will include the additional Reservation residences living in the scattered homes within our Reservation boundaries, we anticipate beginning phase 3 in January 2011.

In the next few weeks, staff members will be visiting the cluster home residences to gather their input for this project. The Solid Waste staff members are looking forward to this challenging yet rewarding accomplishment of establishing our own tribally-operated curbside and disposal program. All recycling and disposal items will be transferred to a recycling or disposal site off the Reservation and will eliminate waste on our Tribal lands.

More details to follow in the upcoming Rez Recyclers!

This project is funded by the TSWMA Inter Agency Work Group.



A Guide to Septic Cleaning - How Often Do You Pump Out A Septic Tank?

Table to the right lists the recommended septic tank pumping frequency according to septic tank capacity and household size. The frequencies were calculated to provide a minimum of 24 hours of wastewater retention assuming 50 percent digestion of the retained solids.

The removal of **septic waste** by cleaning the septic tank is a critical step in septic system care as it extends the life of the septic field. Even if you don't care how septic systems work you need to know when to clean the septic tank by pumping out septic waste. Look up your tank size and number of building occupants to see how often the septic tank should be cleaned.

Call our Division about our Wastewater Service Policy to empty your septic tank 966-2946

Septic Tank Pumping Frequency in Years										
	Household size - Number of Occupants									
	1	2	3	4	5	6	7	8	9	10
Tank Gallons	Septic Tank Pumping Frequency in Years									
500*	5.8	2.6	1.5	1.0	0.7	0.4	0.3	0.2	0.1	-
750*	9.1	4.2	2.6	1.8	1.3	1.0	0.7	0.6	0.4	0.3
900	11.0	5.2	3.3	2.3	1.7	1.3	1.0	0.8	0.7	0.5
1000	12.4	5.9	3.7	2.6	2.0	1.5	1.2	1.0	0.8	0.7
1250	15.6	7.5	4.8	3.4	2.6	2.0	1.7	1.4	1.2	1.0
1500	18.9	9.1	5.9	4.2	3.3	2.6	2.1	1.8	1.5	1.3
1750	22.1	10.7	6.9	5.0	3.9	3.1	2.6	2.2	1.9	1.6
2000	25.4	12.4	8.0	5.9	4.5	3.7	3.1	2.6	2.2	2.0
2250	28.6	14.0	9.1	6.7	5.2	4.2	3.5	3.0	2.6	2.3
2500	30.9	15.6	10.2	7.5	5.9	4.8	4.0	3.5	3.0	2.6

Prairie Band Potawatomi Nation
Division of Planning & Environmental Protection
 15434 K Road
 Mayetta, KS 66509
 Office: 966-2946
 Solid Waste Center: 966-2773
 Wastewater Treatment Plant: 966-0111



We're on the web!
www.pbpindiantribe.com/epa.aspx

Rez Recycler November 2009



Division of Planning & Environmental Protection Staff

Virginia LeClere
Environmental Manager
 valeclere@pbpnation.org

Sharon Bosse
Environmental Technician
 sbosse@pbpnation.org

Erin "Kumos" Hubbard
Solid Waste Specialist
 kumos@pbpnation.org

Myron Shield
*Environmental/
 GIS Technician*
 myrons@pbpnation.org

Top row L to R: Bill Wilbur & Andrew Pahmahmie Middle row L to R: Kumos Hubbard, Myron Shield, Craig Wahwahsuck Bottom row L to R: Sharon Bosse, Virginia LeClere & Vincent Hernandez

Vincent Hernandez
Wastewater Operator

Bill Wilbur
*Solid Waste/
 Orchard Assistant*

Craig Wahwahsuck
Solid Waste Assistant

Andrew Pahmahmie
Solid Waste Assistant