

## What is Groundwater?

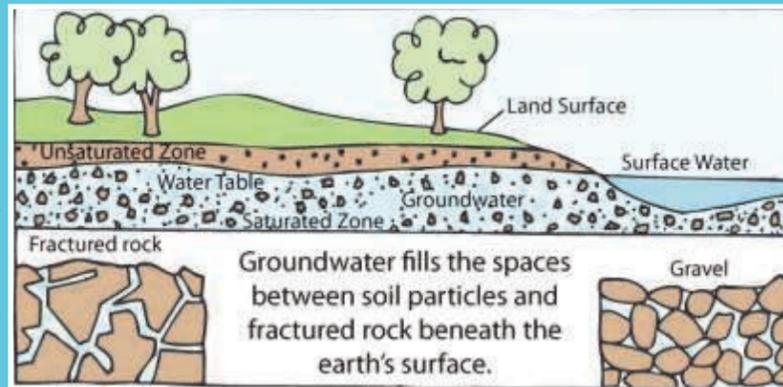
When people hear the word "groundwater" they often think of rivers of water under the ground. While generally true, it is important to understand that there are different types of groundwater. Groundwater can be in soil or near the surface. It can be deep in the ground in fractured or porous rocks. Water in the soil, does not provide very much drinking water. It can be present at the surface or several feet underground. This groundwater moves very slowly. In clay type soils it can move as slow as several inches a year.

Water moves faster in sandy soils and can be polluted from the surface. Pollutants include; chemicals, fertilizers, pesticides, salt, and animal or human waste.

Groundwater that supplies the Oneida Reservation comes from bedrock between 100 and 300 feet and sometimes as deep as 700 feet! Natural clay layers in the soil and good well construction methods protect the bedrock groundwater from surface pollution.

There are many types of bedrock that provide water. Each one affects the quality of the water. If the bedrock has a lot of iron, you may have water that has an orange or red color. If the bedrock is limestone, you may have very hard water and need a water softener. Sometimes bedrock can contaminate the water because of the type of minerals that are in it – such as arsenic. This is why special well construction is required on some parts of the Reservation.

By practicing good waste disposal techniques and making sure wells and septic systems are in good shape, we can help protect the groundwater for future generations.



Source: [www.groundwater.org](http://www.groundwater.org)

Spring 2015

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ONEIDA  
ENVIRONMENTAL,  
HEALTH & SAFETY  
NEWS

# ehsd news

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Cutting Buckthorn at Coyote Run Natural Area.

Buckthorn is a common invasive plant. EHSD uses several methods to control it including pulling by hand, cutting, and applying herbicide.



Wetland Ecology with Oneida Head Start students  
October 2014



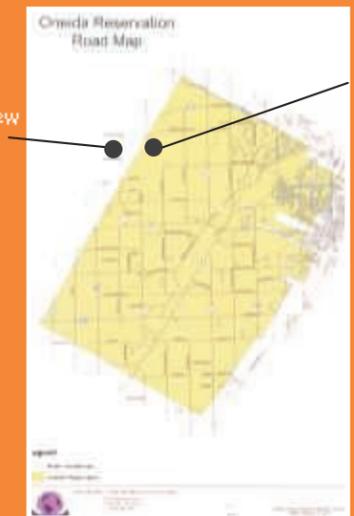
## MANURE SPILL NEAR THE ONEIDA RESERVATION REQUIRES INVESTIGATION AND PARTNERSHIPS

### Investigation

On November 26, 2014, Wisconsin Dept. of Natural Resources (WDNR) Conservation Warden Mike Young contacted Oneida Environmental, Health and Safety Division (EHSD) because he was investigating a manure runoff situation just west of the reservation. Meadowview Dairy on County Highway Y, applied approximately 1.3 million gallons of liquid manure to a partially frozen, snow covered field on Linsmeyer Road. The manure ran off the field in large quantities and ended up in the adjacent roadway ditch. This ditch flows into the Coyote Run Natural Area on the reservation. The tribe has spent time and resources on restoration projects in this area over the past several years.

### Further Investigation

On December 1<sup>st</sup>, 2014 Oneida Water Resources Team and WDNR staff visited Coyote Run Wetland to observe the extent of the manure runoff. Staff collected physical and chemical measurements of the stream and collected samples. The results of the samples confirm that this has and will continue to negatively impact the aquatic life and habitat in the restored headwater wetlands at Coyote Run.



Pumping manure out of the ditch. This manure overspread will impact the aquatic life and habitat at Coyote Run Wildlife Area.

More on Dairy Farms and Manure  
A single dairy cow produces approximately 120 pounds of manure every day. As the number of cows in this area continues to grow, proper handling of manure becomes more and more difficult. More spills are occurring, which result in pollution of our surface waters.



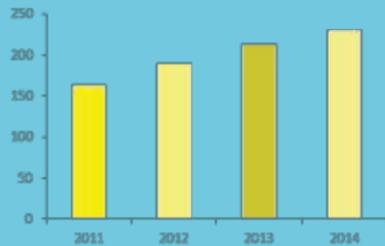
Oneida curbside recycling customers increased recycling rates by 8% in 2014.

### WHY IS RECYCLING IMPORTANT?

Conserves raw materials making new products out of recycled materials reduces the need to consume resources.

Saves energy using recycled materials in the manufacturing process uses less energy than is required from producing products from raw materials

Years of Material Recycled Annually by Oneida Customers



Protects the environment recycling reduces the need for extracting, refining, and processing raw materials-all of which create air & water pollution. Recycling also reduces greenhouse gases emissions.

Reduces landfill usage Years ago, there were thousands of landfills in Wisconsin. Today there are approximately 80 active landfills. When we recycle- we save space in the landfills, so they will last longer.

Source: Wisconsin Department of Natural Resources

## Oneida Compliance Assistance Program...10 Years in the Making

The Oneida Compliance Assistance Program (OCAP) is a program that EHSD operates under an agreement with the EPA, called a DITCA (Direct Implementation Tribal Cooperative Agreement). This DITCA allows EHSD to manage an underground storage tank inspection program, and complete inspections on the EPA's behalf. The program applies to federally regulated underground storage tank (UST's) facilities on the Oneida Reservation.



### COMPLIANCE ASSISTANCE PROGRAM

The inspections that OCAP inspects, are generally underground storage tanks that hold petroleum at gas stations. The program began in 2005, and has become a nationally recognized program for its accomplishments:

- Significant Operational Compliance rates of UST facilities on the reservation have increased from 7% in 2005 to 100% each year after.
- Developed trust and working relationships with tribal and non-tribal owners and operators
- **Demonstrated OCAP's** ability to be an effective partner with the EPA.



Mike Arce, OCAP's Underground Storage Tank Inspector- uses an inspection camera to inspect a fuel dispenser at a local gas station.

- Increased the professional presence of OCAP staff on the reservation. Assisted with multiple UST installations, removals, and upgrades
- Provides compliance assistance to other Tribes in great lakes area
- Created a UST Compliance Assistance Handbook that tribes, states, and municipalities have requested to use for their inspectors
- Produced 17 newsletters, offered technical assistance, and provided petroleum spill kits

**OCAP's staff participates in** UST webinars, seminars, and trainings to stay up-to-date on UST regulations and compliance issues. OCAP has acquired a portable Automatic Tank Gauge monitor, multiple three-dimensional UST models, and a refurbished trailer to aid in trainings and promote UST compliance. OCAP is committed to protecting human health and the environment by offering compliance assistance, providing UST training, and helping to prevent groundwater contamination due to petroleum releases.

## Locally Sourced Energy for EHSD

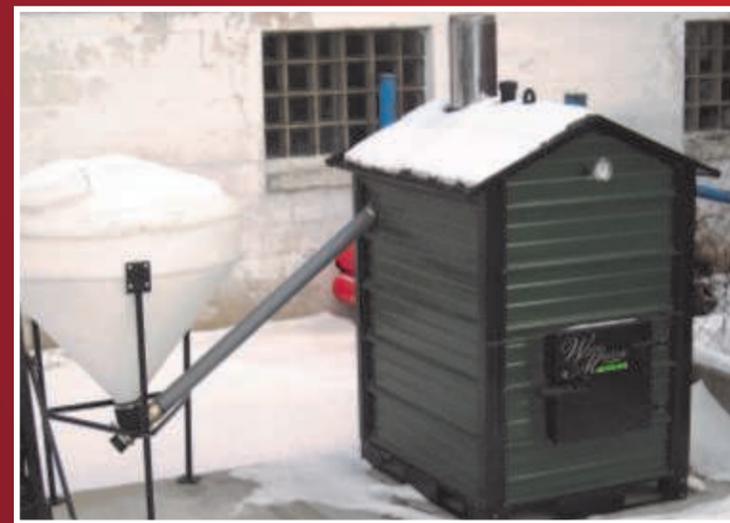
The Forestry & Trails Program (Tsiyolhotu okale yohaten lutstelistu- the forests and the paths they are in charge of) provides outdoor maintenance work for tribal members throughout the year. They are located at the EHSD Conservation Field office- N8047 County Highway U. Their workshop requires heat during winter. Depending on the fuel source heat can get very expensive, so EHSD decided to investigate a new kind of fuel.

Currently, the workshop is heated with propane. The building typically uses **2,500 gallons per year. Last year's frigid cold and propane shortages** made heating with propane very expensive. The workshop burned more than 3,500 gallons of propane. The heating season costs were double what was budgeted.

In December 2014, EHSD used a grant to install a wood pellet furnace to heat for the workshop. Wood pellets are growing in popularity and their prices are remaining stable. There are a lot of EPA-certified, high-efficiency appliances available for burning pellets or cordwood. **By using wood, we're reducing our imports of a fossil fuel and we're using a Wisconsin-grown energy source.**

Staff will continue to make adjustments and will including increase the pellet hopper size. We also plan on improving the energy efficiency of the workshop.

Eventually, the furnace will be used as the main heat source with propane as a backup. We will invite the community to observe the furnace and demonstrate its operation in the near future. Stay tuned...



EHSD received a grant from the U.S. Department of Energy for the purchase of this Wood Pellet Boiler. On the left, the hopper holds the wood pellets. The fire is located in the furnace. The furnace heats water, that is piped into the workshop. Heat radiates out of a radiator.



In September 2014, the Oneida Tribe was awarded a grant by the USDA Agricultural Marketing Service through their Local Foods Promotion Program.

The grant will run until September, 2015. The project title is **"Oneida Tribe's Food Enterprise Development and Healthy Food Initiative"**.

The project is designed to assist Oneida Community members to start their own food enterprise while also trying to encourage healthier eating habits. The Tribal Sanitarian will be teaching a Food Certification Class for vendors that are interested in selling food on the reservation. Please contact William Vervoort at 920-496-7423 with any questions regarding this program.



Food Safety Class students



~Oneida Lake Grand Opening Event~ EHSD continues work at the Oneida Lake site. This spring and summer's activities include installing fishing piers, building a boat landing, bath houses, and restrooms.

We will celebrate by hosting a Just Move It Oneida! Event at the lake on Saturday May 16.

## Healthy Duck Creek=Healthy Green Bay

Phosphorus is common in farm fertilizers, manure, and organic wastes in sewage and industrial effluent. When there is too much of it in lakes and stream— it reduces the amount of oxygen available to plants and animals. Phosphorus enters water systems by soil erosion. Erosion transports phosphorous from the river banks and adjacent land into a stream. Silver Creek is a small stream located 1 mile west of Austen Straubel Airport and flows into Duck Creek which flows into the bay of Green Bay. The watershed is about 7.5 square miles (4,800 acres). Water testing in Silver Creek shows that it has high levels of phosphorus and sediment that contributes to algae growth, low oxygen, and loss of habitat for fish and aquatic life.

The Silver Creek watershed has been selected as a demonstration area to partner with agricultural landowners and operators, Outagamie and Brown County Land Conservation, Natural Resource Conservation Service, and the Oneida Tribe to collect soil and water samples and design and install conservation practices to reduce phosphorus and soil erosion. NEW Water (the brand of the Green Bay Metropolitan Sewerage District) is leading the planning of the project. Through this project, NEW Water will be evaluating if it is more cost effective to spend \$200 million or more on wastewater treatment plant phosphorus improvements or to partner with agricultural efforts to control the amount of phosphorus reaching the bay of Green Bay.



Silver Creek Pilot Watershed Project Area



## ~Oneida Food Safety Class~

According to the Oneida Food Service Code, and in order to provide the safest food products to the community- people who wish to sell food at any event sponsored by the tribe, or in a tribal building are required to complete a free food safety class.

**FREE**

Certification Class	Time	Recertification	Time
March 11	5-9pm	March 25	5-6pm
April 22	5-9pm	April 15	12-1pm
May 6	5-9pm	May 20	5-6pm
June 3	5-9pm	June 17	12-1pm
July 3	9-12pm-NHC	July 3	12-1pm-NHC
July 15	5-9pm	July 29	5-6pm
August 12	5-9pm	August 26	12-1pm
September 9	5-9pm	September 23	5-6pm
October 7	5-9pm	October 21	5-6pm

### LOCATION

All classes are held at Little Bear Development Center  
N7332 Water Circle Pl.  
Oneida, WI

### EXCEPTION

4th of July Powwow  
July 3rd classes- will be held at the Norbert Hill Center, N7210 Seminary Rd., Oneida, WI. To accommodate food vendors coming to the Annual Oneida Fourth of July Powwow

### REGISTRATION

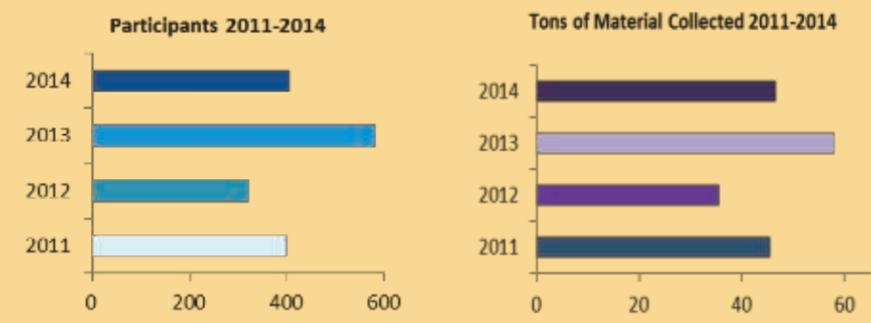
Call EHSD at 920-869-4553 or email [vmiller@oneidanation.org](mailto:vmiller@oneidanation.org)

## HOUSEHOLD Clean Sweep

2015 CLEAN SWEEP JUNE 3

2015 Annual Household Clean Sweep  
EHSD received a grant from the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) to help fund the Annual Household Clean Sweep. This is the third year we have been awarded this grant. The \$7,365 will be used to pay the hazardous waste recycling fee and supplies for the event.

### Clean Sweep by the Numbers 2011-2014



## Pollution Clean Up at Hilltop BP Gas Station



Gas stations are found everywhere. They have become part of our daily lives. Many gas stations have underground storage tanks (UST's) that leak petroleum into soil. Late last summer, the Hilltop BP was demolished and the UST's were removed. After that, samples were collected to determine if there had been soil contamination. The results indicate:

1. There is pollution 6 – 12 feet below the ground
2. Gas and diesel contamination is present
3. Metal contamination has been found



Soil sampling equipment

The Environmental Protection Agency helped EHSD to develop a clean up plan. The cleanup plan focuses on removing the gas and diesel contaminated soils and disposing of them in a landfill. The metal contamination does not pose the same health threat. It will be managed in place. For more information, contact EHSD at 920-496-4548.

It is EHSD's goal to clean the site up and prepare it for reuse by the tribe.

## CONGRATULATIONS AND YAW ^ KO

Mike Arce and Mike Troge both celebrated their 20 year anniversary working for the Oneida Tribe in January.



Mike Troge has been an Environmental Project Manager for Oneida EHSD since 1995. He has worked on design and construction of water and restoration projects. For the past 10 years Mike has focused on renewable energy strategies. His work on the Anna John solar thermal system and the Suamico River Headwater Wetland are his most memorable.



Mike Arce worked for Oneida Retail for 15 years. In 2008, he began his education at the College of Menominee Nation in their Natural Resource Program. After completing his Associates Degree, he earned a Bachelor of Science Degree from the University of Wisconsin-Green Bay. Mike has worked on invasive plant projects and is currently preparing to become an Underground Storage Tank Inspector.

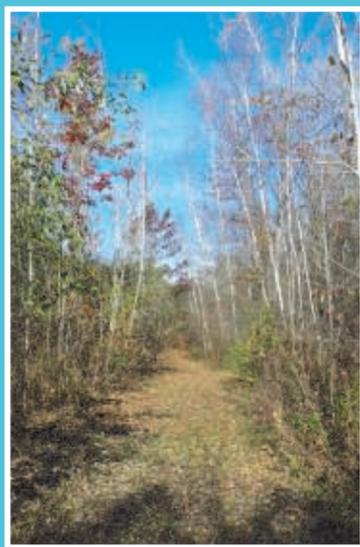


### Trails & Natural Areas Map Update

EHSD is working on an updated version of the Natural Areas & Trails

Guide! The original green booklet was printed in 2006 and highlights 10 of Oneida's natural areas. The new guide will provide information on 22 natural areas including a site map, trails, uses, habitats, plants and animals. We are committed to providing the membership with opportunities to enjoy a variety of habitats on the Oneida Reservation and this guide is a great way to start exploring.

Funding for printing is being provided through the Health Promotions Program Diabetes Prevention Grant. Watch for the new guide in early summer.



Hiking trail at Quarry Park

### Tribe Drafting Vehicle Driver Certification and Fleet Management Law

The law repeals two existing tribal policies, but incorporates their provisions onto the new tribal law— that governs tribal employees, elected & appointed officials, and volunteers in the use of tribal vehicles. Elements addressed include; driver certification, training, insurance, motor vehicle crash reporting, rental vehicles, drug and alcohol use, suspension and revocation, roles and responsibilities, use of personal vehicles, and mileage reimbursement. The draft law is currently with the Oneida Legislative Operating Committee. Jennifer Webster, Oneida Business Committee Councilperson is the sponsor of the law.



### Hunter Recruitment Program Begins

The Wisconsin Department of Natural Resources Hunter Recruitment, Development, Training and Education Grants have awarded the Oneida Tribe \$5,625.00.

The goal of this program is to "provide funding to local clubs, organization, communities, governments, tribes, and colleges and universities to ensure the education and development of new hunters", according to the DNR. The DNR made \$200,000 available for the grant. Seventeen projects were selected for funding, including Oneida. Other grant recipients include; Aldo Leopold Foundation, Pheasants Forever, University of Wisconsin, Wisconsin Bowhunters Association, etc.

EHSD's project involves recruiting 10 women into hunting under the guidance of Conservation Wardens and experienced mentors. The program is designed to inform, educate, and develop the skills necessary to safely hunt. Participants will hunt during the pheasant, waterfowl, and turkey hunts on 2015. The program will conclude with an Awards Dinner, & the women will be offered a free Hunter Safety Course and a free 2015-16 Oneida Sportmen's License. EHSD wants to thank all the volunteer mentors for their support and hopes everyone has a positive experience and successful hunts.



A participant learns about proper gun handling

Source: Paul A. Smith, Milwaukee Journal-Sentinel, Oct. 15, 2014



## Out & About with Kids in Oneida



Turtle School 7th Graders learn about wetland ecology at Where the Waterbirds Nest.



Oneida students from W. DePere High School plant wild rice at Oneida Lake.



Oneida Head Start students learn about the importance of wetlands at Coyote Run Natural Area.

### ~STAFF CHANGES~

There have been staff changes with the Forestry & Trails Program. Todd (Moon) Hill, Natural Resource Technician I has swapped positions with David Flores, who was working for Retail. Moon and David initiated this switch, and EHSD was able to make it happen— in an effort to accommodate their employment goals. So Yaw^ko Moon for your years of service with EHSD! And welcome David— we hope you are enjoying your new position!



Yaw^ko EHSD thanks Moon for his years of service in providing services to the community and contributing to Oneida's quality of life. Good Luck!



Welcome David! It's great that you have joined our team. We all look forward to working with you.



Wild Rice growing at Coyote Run Natural Area. Oneida High School students have been planting rice at this site every fall since 2011.