

TRIBAL WASTE Journal

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Successful Household Hazardous Waste Management



United States
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Household Hazardous Waste Products that Can Cause Harm

Household hazardous wastes (HHW) are products that contain corrosive, toxic, ignitable, or reactive ingredients. Everyday products such as cleaners, paints, batteries, and fertilizers that contain potentially hazardous ingredients require special care when you dispose of them.

Improper disposal of HHW can include pouring items down the drain, on the ground, into storm sewers, or in some cases putting them out with the trash. The dangers of such disposal methods might not be immediately obvious, but improper disposal of these wastes pollutes the environment and poses a threat to human health. Many communities in the United States offer a variety of options for conveniently and safely managing HHW.

This issue of the Tribal Waste Journal offers suggestions and examples of how to start HHW education, collection, and disposal programs in tribal communities. Tribes share their advice and expertise, including organizing a one-day collection event to remove tons of waste from the community (see pg. 10), using creative solutions to build a permanent HHW collection site in rural Alaska (see pg. 16), and organizing wastes to maximize opportunities to dispose or recycle materials that otherwise fill landfill space (see pg. 18).

The ideas, examples, and resources compiled in this issue provide tribal environmental managers and communities with a range of options for developing a HHW program to suit the needs of each community.

The Environmental Protection Agency (EPA) Office of Resource Conservation and Recovery (ORCR) works closely with individual states, industry, environmental groups, tribes, and the public to promote safe waste management. ORCR looks forward to hearing about the development of your community's successful program!

Household Hazardous Waste

is any leftover household material that

is **Toxic, Corrosive,
Reactive or Ignitable.**

Which household hazardous waste items are in your home?

Cleaning Products

- Bleach (laundry)
- Drain cleaners
- Oven cleaners
- Pool chemicals
- Toilet cleaners
- Wood and metal cleaners
- Tub, tile, and shower cleaners

Pesticides

- Bug sprays and baits
- Flea repellents and shampoos
- Houseplant insecticides
- Lighter fluid
- Mouse/rat poisons and baits
- Moth repellents

Automotive Products

- Air conditioning refrigerants
- Antifreeze
- Automotive batteries
- Carburetor and fuel injection cleaners
- Compressed gas cylinders
- Diesel fuel and fuel additives
- Gas/oil mix
- Motor oil
- Propane
- Starter fluids
- Transmission and brake fluids

Workshop/Painting Supplies

- Adhesives and glues
- Fixatives and solvents
- Furniture strippers
- Oil or enamel-based paints
- Paint strippers and thinners
- Stains and finishes
- Lawn and garden products/fertilizers
- Wood preservatives

Miscellaneous

- Batteries
- Driveway sealer
- Fluorescent light bulbs
- Home heating oil
- Kerosene
- Herbicides and fungicides
- Mercury thermometers

Types of Household Hazardous Waste Collection Programs: Selection Methods and Planning Cost

Getting Started

To prevent hazardous materials from being improperly disposed, communities should first determine the best and most feasible practices available for the disposal of their community's HHW. EPA encourages tribes who have the adequate funding and capacity to implement a HHW collection program and/or event. For tribes that do not have the ability to do so, there are other ways that a community's HHW can be collected. There are different types of collection programs and varying cost options for communities to use when disposing of HHW. The following describes a range of collection programs including one-time collection events, permanent collection programs, and multi-community collection events.

Participate in a Nearby Tribe, County, or City's Collection Event

A great opportunity to jump start a HHW collection event is to participate in a nearby collection event if your community has access to one. Participating in an already-established event is also an excellent way to save money. Check with nearby counties, cities, or tribes to see how often collection events are held.

One-Time Collection Event

A one-time collection event is an option for tribes with no or limited access to existing collection programs. In order to conduct a one-time collection event, a tribe may want to hire a contractor to manage and dispose of HHW. The contractor

hauls the waste to a transfer, storage, or disposal facility. The hauler then separates the waste into materials that can be recycled, incinerated or taken to a landfill.

Multi-Community Collection Event

A multi-community collection event is a cooperatively run program with other nearby tribes, cities, or counties. The entity that a tribe partners with runs a collection event at various locations and works with each community to arrange for a special collection truck or van to pick up the HHW at each site. This is the best option for a tribal community that is interested in running its own HHW program and wishes to benefit from the cost-sharing of a cooperatively run program.

Goals of Household Hazardous Waste Collection

- Provide proper disposal of HHW.
- Remove HHW from homes, thus reducing exposure and potential injury.
- Reduce danger to waste collectors and other sanitation workers.
- Increase general public awareness of HHW found in most homes and how these materials may impact human health and the environment.
- Educate residents as to the best methods of HHW disposal.

Tribal Permanent Collection Program

A permanent collection is an on-going program either through curbside collection or through a permanent drop-off location. To establish this type of program a tribe may consider hiring a contractor to deal with the HHW on an as-needed basis, negotiate directly with individual vendors, or link to a county collection program.



Contractor trucks picking up HHW at the Oneida Tribe of Indians of Wisconsin's one-day HHW collection event.
Photo courtesy of the Oneida Tribe of Indians of Wisconsin.

Program Costs

Many factors affect the cost of a collection event. Participation rate of tribal members, the estimated amount of HHW that will be collected, the cost of hiring a contractor, if necessary, to handle wastes, and the cost of hiring staff to work at the event are all factors which affect

the cost of a HHW collection program. The community also may need to set aside funds for advertising, outreach, and educational materials. Understanding what these costs are and estimating them is essential to a successful program (see box below).

It is important to remember

the goals of each type of HHW collection event and to determine which goals the community wishes to support (see box on opposite page). Identifying the goals helps with determining which type of collection program should be implemented.

Calculating Costs

The cost of a HHW collection program can be calculated using the following equation:

Total cost = [participation rate x number of households x cost per pound x number of pounds per household] + staff time** + other costs****

*Cost of waste per pound is typically \$0.50 - \$2.00.

**Staff time = *hourly rate x number of hours per person x number of people*

***Other costs include sending out and evaluating a request for bids; advertising the event via newsletters, radio, TV, etc.; vehicle use and the cost of fuel and administrative or overhead costs.

Cost formula example:

*Total cost = [20% x 100 households x \$1.00 x 50 pounds per household**] + (\$20/hr x 100 hours x 3 people) + other costs = \$6020.00 + other costs*

**It is best to use a higher estimate when calculating costs.

Source: EPA publication *Household Hazardous Waste Collection; A Program Guide for Tribal Governments* EPA-909-K-07-001.



Lead acid battery collection totes about to be sent out to rural Alaskan villages.

Photo courtesy of YRITWC.

Yukon River Inter-Tribal Watershed Council: Barging to Success with Backhaul

Where some see only empty space, others see opportunity—that is what Jon Waterhouse, the Executive Director of the Yukon River Inter-Tribal Watershed Council (YRITWC) saw in the empty vessels leaving the Yukon River Watershed Basin after delivering goods to native villages. Why not use the empty space in planes, trains, automobiles, and boats to haul household and other hazardous waste away? In doing so, waste accumulation in the Yukon River Watershed Basin could be prevented, where

126,000 Alaskans make their home. Utilizing the answer to the question of how to use available space on different modes of transportation is how “backhauling” became key to preserving the ecological health of the Yukon River Watershed Basin. Backhauling is the mission of the 70 members of first nations and tribes that comprise the YRITWC.

Mr. Waterhouse built on the success of his colleague, Clarence Lee Alexander, the Chairman and one of the four co-founders of the YRITWC.

Chairman Alexander was awarded the 2011 Presidential Citizens Medal for his dedicated work to clean up the Yukon River Watershed Basin. In 2004, Mr. Waterhouse partnered with tribes, the YRITWC, and several transportation and recycling companies to develop a comprehensive backhauling program to provide a method for disposal of batteries, junk-vehicles, electronics, and other HHW. The recycling and removal of millions of pounds of waste from the watershed resulted in the closure of

Backhauling

Backhauling is the transportation of goods in a return trip of an otherwise empty transporting vessel. After a vessel distributes goods, a backhaul vessel collects recyclables, solid or hazardous waste as agreed upon with the vessel owner/operator and community for the vessel’s return trip. Backhauling is beneficial because it decreases the costs of local waste management by reducing the amount of materials sent to landfills and minimizing local contamination.



Clarence Lee Alexander

In 2011, Clarence Lee Alexander, Chairman of the Yukon River Inter-Tribal Watershed Council, was awarded the 2011 Presidential Citizens Medal by President Obama. Chairman Alexander received the award due to his meticulous work to clean up the Yukon River Watershed Basin. He was a key figure in the closure of many open-burning dumps and aided the YRITWC in recycling or removing millions of pounds of waste. Chairman Alexander is one of the four co-founders of the YRITWC organization.

several open-burning dumps and provided a model for the proper management of HHW, something that is a challenge for rural Alaska due to its undeveloped road systems.

The backhauling program has not been without challenges. Alaskan villages are vast distances apart and often in remote areas, making transport difficult and costly. For the past three years, vessels did not charge a fee for backhauling waste, but with increasing fuel costs, the barges now charge YRITWC ten cents per pound of refuse. Another hurdle is the special preparation necessary for some items such as vehicles, which

must be drained of their fluids (e.g., gasoline, oil, antifreeze, and transmission fluid) to minimize any risk of spills and ensure they are properly prepared for recycling.

YRITWC received support for its backhauling programs from EPA in 2007 through an Alaska Tribal Multi-Media grant designed to achieve five goals:

- Increase the capacity among tribal solid waste coordinators throughout the Yukon River Watershed Basin to operate and maintain newly created Regional Recycling and Reuse Hubs;

- Expand the types and quantity of materials that are

backhauled off of the Yukon River;

- Provide documentation and other information in the form of a manual for other regions to create backhaul initiatives;

- Provide training to region-wide and watershed-wide efforts throughout Alaska 4 -7 times a year; and

- Create a “Sustainability Plan” for the YRITWC Backhaul Pilot Project.

The YRITWC determined that a backhaul “how-to” manual needed to be created so that the YRITWC could share the reasons and processes that made its program successful.



Alaska and the Yukon River Watershed overlaid over the United States.

Photo courtesy of YRITWC..



Overhead view of an empty barge ready to backhaul.

Supported by funds from the Tribal Multi-Media Project grant, the YRITWC wrote *Backhaul: A "How-To" Guide* (the Guide) to demonstrate to communities how to successfully create and implement their own backhaul programs.

The Guide is a comprehensive tool that addresses how to initiate backhauling, what types of materials can be backhauled, the training needed to support the program, and how to build partnerships, all of which are necessary for success. It also provides resources and success stories of communities who have used backhauling to reduce waste in their communities. The Guide is available on the YRITWC

website for anyone to download. To access the Guide visit: http://www.yritwc.org/Portals/0/PDFs/2008_backhaul_manual.pdf.

The Guide includes a long list of HHW that has been included in backhauling: lead acid batteries, white goods (e.g., refrigerators, freezers, and coolers), electronics (e.g., televisions, computers, copiers, fax machines, microwaves, etc.), motorized vehicles (e.g., metal boats, outboard motors, snow machines, ATVs, cars, trucks, and heavy equipment), used oil, used glycol, and fluorescent light bulbs.

In order for a community to be successful in backhaul programs, municipalities and

cities should communicate and cooperate and establish a strong outreach and education component. Each community has different obstacles to overcome, and therefore may need different solutions to approaching a backhauling program. Stephen Price, the Solid Waste Manager of YRITWC, advises a community to talk to EPA to see what kind of funding is available. In addition, Mr. Price recommends starting a dialogue with transporters who come to the community to initiate partnerships.

It is a commonly held assumption that transporters only bring goods in and are part of the solid waste problem. In reality, Mr. Price has found them to be cooperative since they “are typically a part of the community or come to the community and the work they do is important to the health and well-being of the village.”

The YRITWC’s backhauling program is overwhelmingly successful with over 10 million pounds of hazardous waste having been transported away from the Yukon River Watershed Basin since 2008. Their leaders have made an immeasurable contribution to the health and wellness of those who live and work along the Yukon River Watershed Basin which will be felt for years to come.

What can you envision in your community that turns an empty space into a healthier space?



Yakutat landfill source based separation awaiting packaging for backhaul in 2011.

Photo courtesy of Ted Jacobson.

Case Study on Rural Alaska Landfill Operators (RALO) and Backhaul in Yakutat, Alaska

Though Yakutat has been known nationally for its world-class steelhead angling and regionally for its progressive approach to commercial fisheries and processing, the town of around 660 people was behind the times when it came to managing solid waste.

In 2007, the landfill was a hodgepodge of disorganized materials scattered about several acres. There was no controlled access to the landfill, which meant that local residents threw whatever items they wanted, whenever they wanted, anywhere within the constraints of the fence. There was not much in the way of signage to direct them around the landfill.

Ted Jacobson, a Tribal Solid Waste Liaison for EPA and Rural Alaska Community Action Program (RurAL CAP), knew that Yakutat could reap immense benefits from proper solid waste training and suggested the Rural Alaska Landfill Operators (RALO) training. Consequently, an operator from Yakutat attended RALO training. Implementing the lessons he

learned, the operator began digging through the dump and separating and consolidating the various forms of solid waste. The RALO training helped the operator develop an organized landfill.

RALO highlights the duties of the landfill operator, their personal safety, and the safety of the community. Participants learn about landfill design and construction, applicable Alaska Department of Environmental Conservation regulations and requirements, HHW, waste separation and screening, waste reduction and segregation, recycling, personal protection

equipment, and operations and maintenance practices unique to rural Alaskan communities.

In 2011, the Yakutat landfill acquired seven conex containers, which became staging units for aluminum, HHW, and electronic waste. Waste oil was separated from waste gasoline, used oil, and antifreeze. In late spring, as a result of this new system, the landfill operator was able to backhaul two containers of electronic waste aboard a barge and send it south to recyclers in Seattle. The organization of the landfill facilitated the backhauling of specific goods.



Yakutat dumpsite in 2007.

Photo courtesy of Ted Jacobson.

Santa Ynez: Partnering with the County to Dispose of Household Hazardous Waste



Jesse Patterson*, the Environmental Management Specialist of the Santa Ynez Band of Chumash Indians Tribal Community, suggests looking “for a program that is already in place...one you would be able to piggy back on.” In 2008, the Chumash Reservation did not have a HHW program and Mr. Patterson felt that there was a need for one. He contacted administrators in Santa Barbara County which surrounds his community’s reservation, and as a result his tribe has had a safe place to properly dispose of their HHW ever since.

The Santa Ynez Reservation

is north of Los Angeles, adjacent to Santa Barbara County, California. The reservation was established in 1901 and the tribe has almost 300 residents living there. The Santa Ynez Band of the Chumash Indians has always lived along the coast of California.

Mr. Patterson began thinking about a HHW program for the tribe because the Santa Ynez Chumash Environmental Office (SYCEO) was developing an integrated waste management plan with funding they received from an EPA tribal solid waste management assistance grant.

The plan, which was completed

in 2011, includes methods for the proper disposal of solid and HHW.

In order to assess the needs of the Chumash community pertaining to solid waste, hazardous waste, and HHW, Mr. Patterson distributed surveys to the Chumash residents. At first the surveys were postcard size and asked basic questions such as what types of waste residents had and what type of assistance they needed for disposing of the wastes.

Mr. Patterson contacted Santa Barbara County and asked to participate in its HHW events, which were held twice a year (April and October), at the local transfer station in the Santa Ynez Valley. A month prior to the Santa Barbara HHW event, in September of 2008, SYCEO held a community cleanup event. Members of the SYCEO community gathered to pick up trash and other refuse which had accumulated on community lands. At the cleanup event, participants were reminded of the upcoming Santa Barbara HHW collection event. SYCEO employees informed community members of the items they could bring to the collection event as well as those that were ineligible for disposal. Prior to the HHW collection event, flyers were created by the county announcing the event. The flyers were sent to the residents

Medicines: Household Hazardous Waste or not?

Prescription drugs, such as antibiotics and other medicines are not considered HHW. However, recent studies have shown that prescription drugs are appearing in rivers and streams and can potentially harm fish and other aquatic species. Scientists think this is because people are pouring medicines down the drain or flushing them in toilets. Wastewater treatment systems are not designed to remove drugs, so medicines are going into our waterways. Some antibiotics can harm the bacteria needed for septic systems and soil treatment areas to function properly. EPA always encourages the public to take advantage of pharmaceutical take-back programs or HHW collection programs that accept pharmaceuticals, as these programs offer a safe and environmentally-conscious way to dispose of unwanted pharmaceuticals. If there are none available to you, please contact your local and state waste management authorities for guidance on discarding any unwanted pharmaceuticals. For more information, please refer to the Food and Drug Administration’s Guidance: *Disposal of Unused Medicines: What You Should Know*.

Transfer Stations

Transfer stations are extremely beneficial to tribal communities where residents have limited accessibility to the main collection event. A transfer station is a facility where solid waste is unloaded from smaller trucks and reloaded into larger vehicles for transport to a final disposal site. By combining the loads of several individual waste collection trucks into a single shipment, communities can save money on labor and operating costs by reducing the total number of vehicular trips traveling to and from the disposal site. However, if not properly situated and operated, transfer stations can cause problems for residents living near them.

For more information see EPA's manual, *Waste Transfer Stations: Involved Citizens Make the Difference* at: <http://www.epa.gov/waste/nonhaz/municipal/pubs/wtsguide.pdf>

Also check out the previous Tribal Waste Journal: *Against All Odds: Transfer Station Triumphs* at: <http://www.epa.gov/waste/nonhaz/municipal/pubs/wtsguide.pdf>

of the Chumash Reservation, as well as to tribal members outside of the reservation. The flyer provided information as to why a homeowner should not dispose of HHW incorrectly and the items the collection event accepts. The tribe also advertised the event on their Facebook page, website, bulletin boards, at public areas around the reservation and in tribal offices, and made announcements at other community events. The tribe participated in the county event two weeks later.

The SYCEO made it clear it would assist tribal community members, including answering their questions. For those community members that request assistance, SYCEO staff provide individualized support with HHW assessments and disposal. For example, on April 1, 2012, staff assisted five residences with HHW removal. In order to assist the community members, personnel from the tribal office visit the residents' homes to review what HHW

is found in the home and how best to dispose of it. SYCEO staff look in garages, kitchens and other areas of their home and help identify wastes such as cleaning chemicals, paints and solvents. The tribal office advise the residents on how to store and properly dispose of the waste. Ideally, residents transport their own HHW to the county collection events, but if a resident is elderly or has some other restriction, the tribal office transports the HHW to the event for them.

The county's collection event is free to all members on the reservation and county residents. Some fees are required for the disposal of certain items like tires or refrigerators with freon. Mr. Patterson says that the tribe's members are incredibly grateful to be able to participate in the collection events. Every year there is an increase in tribal participation which Mr. Patterson links to word-of-mouth generated buzz.

Mr. Patterson suggests that

if the event were held on the reservation, it probably would have a better participation rate among the tribal members, but the tribe does not collect and hold material on the reservation because of permitting and other regulatory requirements. Participating in a county event is a good way to avoid the sometimes lengthy and costly issues surrounding obtaining a permit. However, the Santa Ynez Band of Chumash Indians is open to the idea and is looking into the feasibility of partnering with the county to build a small collection center on the reservation.

Prior to 2008, the residents of the Chumash Reservation were not completely clear on how to identify and properly dispose of HHW. Mr. Patterson asserts: "People just didn't know and they didn't know a way to get rid of it...now people are aware of the events and know what to do."

Sounds like success.

*As of the publication date Jesse Patterson moved on from the SYCEO to become Deputy Director for the League to Save Lake Tahoe. Joshua Simmons has now taken over his position as Environmental Director of the Santa Ynez Band of Chumash Indians. Learn more about the SYCEO and find contact information here: www.SYCEO.org.



HHW Collection Event held by the Oneida Tribe of Indians of Wisconsin.

Photo courtesy of Amy Spears.

Oneida Tribe of Indians of Wisconsin: Partnering with the State for Healthy Homes

When Amy Spears, Recycling Coordinator and Environmental Specialist, started working for the Oneida Tribe of Indians of Wisconsin's Tribal Environmental Response Program, she realized that many tribal members did not know about HHW disposal options. Many were unaware of how to utilize the Oneida's Tribal Environmental Response Program. Ms. Spears wanted to change this.

At about the same time, the State of Wisconsin approached the Oneida Tribe of Indians of Wisconsin, located west of Green Bay, Wisconsin, with a Housing and Urban Development (HUD) Healthy Homes Grant. The grant was to help facilitate identifying housing-related health and safety hazards, including items such as leftover paints and chemicals that are considered HHW.

Ms. Spears, with the help of Victoria Flowers, Oneida Environmental Specialist and Jennifer Falck, Environmental Health Supervisor, realized that as part of the Healthy Homes Initiative the goal of identifying HHW could be expanded to include proper disposal of hazardous chemicals. Ms. Spears and Ms. Flowers began planning a one-time HHW collection event with the support of the Tribal Environmental Response Program and the HUD Healthy Homes Grant. The first collection event would be used as an outreach mechanism to encourage tribal members to properly dispose of HHW.

Additionally, the Oneida Environmental Department wanted to provide outreach about the disposal options in the surrounding counties. The members of the Oneida Tribe

of Indians of Wisconsin have a partnership with the surrounding counties and can dispose of HHW for free at the county's facilities, rather than paying typical county fees.

For the one-day collection event, the collection planning team had to determine whether the goal of the program was to encourage tribal members to drive in to use the service or to prevent HHW from going into the landfill. Though the goals of the program would evolve in future events, the tribe decided that the goal for the first event was the latter.

Postcards were sent out to all tribal households within the reservation to advertise for the collection event. To raise awareness, articles defining HHW and advertisements about the events were placed in the tribal newspaper six weeks in

advance.

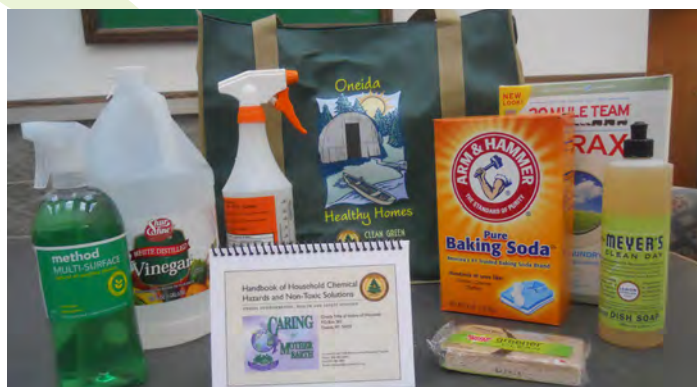
The first collection event was held in September 2010. Many different items were collected during the event such as scrap metal, appliances, used tires, pieces of lamps, PCB ballasts, antifreeze, latex and oil-based paints, compact fluorescent lamps, electronics, and mercury thermometers. The first event was a success with 215 tribal members participating and 21.3 tons of HHW collected.

A significant amount of HHW also was collected during the next two events. At the May 14, 2011 event, which had a total of 205 participants, 22.7 tons of HHW were collected and at the August 27, 2011 event, with 197 participants, 18.3 tons of HHW were collected. Goodwill also collected items that could be reused from the 2011 collection events.

The attendees of the events received eco-friendly totes which included green cleaning products and ingredients to “make your own” green cleaning products. A green cleaning recipe book, created by the Tribal Environmental Response Program also was included.

In the future, the Oneida Tribe’s plan is to conduct yearly HHW collection events and they are exploring options to secure funding for the event. Ms. Spears and Ms. Flowers agreed that the goal of the events has shifted from not only preventing items from going to the landfill, but also to increasing tribal members participation. Ms. Spears acknowledged that “we have a lot of people who are really happy about the events and excited to participate in the coming year.”

Ms. Spears was able to combine the need for disposing HHW, raising awareness of proper HHW disposal and making homes more “healthy.” Best of all, she found a way to use this grant towards the Oneida’s HHW program. This HUD grant is a great example of a successful partnership with the state and the Oneida.



Green cleaning supply kit handed out at the Oneida HHW collection event.

Photo courtesy of Amy Spears.

Examples of Homemade Green Cleaning Supplies*

Furniture Cleaner and Polish

- 1/2 teaspoon oil, such as olive (or jajoba)
- 1/4 cup vinegar or fresh lemon juice

Mix the ingredients in a glass jar. Dab a soft rag into the solution and wipe onto wood surfaces. Cover the glass jar and store indefinitely.

Oven Cleaner

- 1 cup or more of baking soda
- Water
- A squirt or two of liquid soap

Sprinkle water generously over the bottom of the oven, then cover the grime with enough baking soda that the surface is totally white. Sprinkle some more water over the top, let sit overnight. Wipe up the next morning. When the worst of the mess is removed, dab the liquid detergent or soap on a sponge, and wash the remaining residue from the oven.

Window Cleaner

- 1/4 - 1/2 teaspoon liquid soap
- 3 tablespoons vinegar
- 2 cups water

Put all the ingredients into a spray bottle, shake it up a bit, and use as you would a commercial brand. The soap in this recipe is important because it cuts the wax residue from the commercial brands you might have used in the past.

Mold and Mildew Cleaner

- 2 teaspoons tea tree oil
- 2 cups water

Combine in a spray bottle, shake to blend, and spray on problem areas. Do not rinse.

Disinfectant

- 2 teaspoons borax
- 4 tablespoons vinegar
- 3 cups hot water

Mix all ingredients together in a spray bottle. For stronger cleaning power add 1/4 teaspoon liquid soap. Wipe on with dampened cloth or use nonaerosol spray bottle.

*All recipes listed here are taken from the Oneida Tribe of Indians of Wisconsin's HHW booklet located at: <http://www.oneidation.org/uploadedfiles/hrfbooklet.pdf>.



Recycling containers at the Oneida Tribe of Indians of Wisconsin's HHW collection event.

Photo courtesy of the Oneida Tribe of Indians of Wisconsin.

Outreach: Raising Awareness and Increasing Participation at Household Hazardous Waste Collection Events

What do flyers, postcards, surveys, brochures, and posters have in common?

All of the above can be used as successful outreach materials when the goal is to raise awareness and increase participation at HHW collection events. Outreach is used for a variety of purposes including, gathering information such as environmental surveys, informing the community, and most importantly, building community support for collection events.

There are different ways to

get the word out about a HHW collection event. Announcements can be made at community meetings, school presentations, and other public events. Public Service Announcements (PSAs), letters to the editor, radio or newspaper ads are ways to reach a larger audience. Brochures, newsletters, door hangers, flyers, and posters are other ways to spread the news. Using more than one type of communication tool is even more effective than using one method alone. Making announcements at several meetings and posting flyers in

multiple locations builds up awareness more than simply hanging flyers in the tribal office.

For example, the Nenana Native Community made announcements about HHW collection at community meetings and they also posted posters at their local school. They know that children often go home and tell their parents about what they saw and heard at school. Informing and raising children's awareness of HHW can result in children convincing adults to participate in the collection event. This strategy

News from the American Association of Poison Control Centers and The Children's Health Environmental Coalition


- According to the American Association of Poison Control Centers, household hazardous products make up 30 percent of the substances most frequently involved in poisonings.
- The Children's Health Environmental Coalition estimates the average household has 3-10 gallons of hazardous materials in the home at all times.
- According to the American Association of Poison Control Centers, 60 percent of all poisonings involve children under six years of age. The most common products involved in these poisonings are household chemicals, cleaning products, drugs (prescription and over-the-counter), and cosmetics.

worked well for Nenana and was a great precursor to the community involving the youth as well as the elders in Nenana's clean-up event.


The Oneida Tribe of Indians of Wisconsin sent out postcards to all of the tribal residents and advertised the event in the tribal newspaper. They also distributed brochures documenting what items would be accepted at the event. Outreach was an important part of generating awareness of the event as well as providing information about identifying HHW items.

Another approach to spreading the word about HHW events is to gather volunteers to canvas or go door-to-door to talk individually to community members about an upcoming event. The first year the Santa Ynez organized a HHW collection, volunteers went to elderly community members and helped identify and collect the HHW waste in their homes that could then be brought to the collection event. If a tribe has an environmental program that is able to field phone calls from residents with questions related to HHW, this typically makes the collection event run smoother.

Most importantly, don't give up! Many of the HHW collection



Santa Ynez Band of Chumash Indians Environmental Survey



Please take a few moments to fill out the following survey regarding waste management and water use at your residence. This information will help us (the Chumash Environmental Office) identify any environmental needs that you may have and areas where we can provide assistance and information to you. With your help we can keep the Chumash Reservation a beautiful place to live. We are here to serve you.

General Information

1. Do you currently live on the Reservation?
Yes _____, No _____ (If you answered No skip to question 4.)

2. Do you rent or own the residence you are currently living in?
Rent _____, Own _____

3. How many people (including yourself) live in this residence fulltime (more than 6 months a year)?

General Waste Management

4. Do you currently have trash service (pick-up) at this residence?
Yes _____, No _____ → Would you like information about trash service (pick-up)?
Yes _____, No _____

5. Do you currently have recycling service (pick-up) at this residence? (Typically this is a blue container.)
Yes _____, No _____ → Would you like information about recycling service (pick-up)?
Yes _____, No _____

6. Do you currently have yard waste service (pick-up) at this residence? (Typically this is a green container.)
Yes _____, No _____ → Would you like information about yard waste service (pick-up)?
Yes _____, No _____

Above is an example of an environmental survey.

Document courtesy of the Santa Ynez Band of Chumash Indians.

events were even more successful the second or third time they were held because of the increased awareness raised from the first event and continued outreach. As the featured tribes in this issue can attest, outreach was critical in the success of each

event and perseverance ensured increasing participation in subsequent events.

As with any event, the more it is advertised, the more people will come—and the more they'll tell their neighbors to come, too!

Personal-Care Products: Household Hazardous Waste or Not?

Some personal care products are considered HHW. In particular, nail polish, nail polish remover, and products in aerosol containers have flammable chemicals and are considered HHW. Nail polish should not be poured down a drain and instead should be brought to a HHW collection center along with other HHW. Aerosol cans should be recycled for a number of reasons, the most important being safety. When aerosol cans are thrown into landfills, they become a hazard. If a fire were to break out, these containers could explode and cause physical harm to landfill workers and firefighters. Extra care should be taken to recycle empty aerosol cans or dispose of partially filled aerosol cans as HHW. Most other personal care items like cosmetics, or skin and hair-care products, can be thrown away in the trash. In general, it is best to finish using products completely before disposing of them.

The Cool Factor: Certification in Refrigerant Compliance at The United South and Eastern Tribes Annual Summit



What do effluent microbiology, Hurricane Sandy emergency response, and safe refrigerant handling have in common? These were training and continuing education sessions provided at the 2013 fourth annual United South and Eastern Tribes, Incorporated (USET) Tribal Utility Summit (TUS), held in Nashville, Tennessee. From April 9-11, more than 130 tribal water, wastewater, and solid waste

professionals gathered for the event. This collaborative effort was sponsored by USET, EPA, and the Nashville Area Indian Health Service (IHS).

Headquartered in Nashville, Tennessee, USET was formed around the shared idea of “strength in unity.” What the organization is discovering by hosting annual tribal summits is that there is also unity in strength—when tribal

employees convene under a common purpose, they have an unprecedented opportunity for networking and community. USET is a non-profit inter-tribal organization founded in 1969 that has grown to include twenty-six federally-recognized tribes, operating through various workgroups and committees and providing a forum for the exchange of ideas and information among tribes, agencies, and governments. USET’s mission is “dedicated to enhancing the development of Indian Tribes, to improving the capabilities of Tribal governments, and assisting the member Tribes and their governments in dealing effectively with public policy issues and in serving the broad needs of Indian people.”

Several training opportunities were available to tribes at the 2013 Tribal Utility Summit. Tribal employees had the opportunity to train and test for their 608 Certification — an EPA certification for all who perform maintenance, service, repair, or disposal of equipment or appliances that could be reasonably expected to release refrigerants into the atmosphere. EPA Region 4 and the Nashville Area IHS provided travel

Refrigerant

Freon refers to chemicals called chlorofluorocarbons, or CFCs, that are used in refrigeration products. While CFCs are typically not toxic to humans, they are harmful to the environment because when released into the atmosphere, CFCs destroy ozone molecules faster than nature can repair the ozone layer. The ozone layer is important because it protects us from harmful UV rays. Freon is so harmful that it is illegal to release it into the atmosphere. Before recycling or disposing of an appliance containing freon, the freon must be removed by a certified technician. The cost to hire a removal technician or to get certified depends on variables such as the cost of the technician or instructor’s time, the cost of the certification exam, refrigerant disposal fees, refrigerant handling equipment, and the cost of shipping any materials.

For more information on freon and examples of Alaskan tribes with freon experience visit:

http://www.zendergroup.org/docs/Freon_removal.pdf

For information on complying with the Section 608 Refrigerant Recycling Rule visit:

<http://www.epa.gov/ozone/title6/608/608fact.html>



Collected appliances containing refrigerant.

Photo courtesy of Robin Campbell of the Nenana Native Council.

scholarships to USET-affiliated tribal water, wastewater, and solid waste professionals to increase accessibility to the program.

The mandatory EPA certification program requires individuals to be trained before servicing, disposing of, or recycling air-conditioning and refrigeration equipment. The program also certifies to the appropriate EPA Regional Office that these individuals have acquired (built, bought, or leased) refrigerant recovery or recycling equipment and that they are complying with the applicable requirements. This certification must be signed by the owner of the equipment or another responsible officer and sent to the EPA Regional Office.

The Tribal Utility Summit 608 Certification sessions were conducted by Earl Delatte of the ESCO Institute. Mr. Delatte was the lead in training and

testing participants on how to handle solid waste products such as freon, the refrigerant that can affect air quality if not properly handled and discarded. Participants must pass an EPA-certified test to get their 608 credentials and the credentials do not expire.

The USET Office of Environmental Resource Management (OERM) is the lead on the Summit and programs such as an Operator Certification Program, related drinking water activities, and solid waste training assistance programs. The mission of the OERM is “to assist member tribes in addressing environmental concerns, such as clean and safe drinking water, health community ecosystems, and climate change impacts to tribal homelands, traditional practices, and overall economic well-being.” Any tribal employee is eligible to take the 608

Certification course and test. The annual Summit is a convenient alternative to independently searching for and attending local certification programs.

In addition to waste-related training, USET also supports efforts in inter-tribal agriculture, clean water, and wastewater. Aside from the environmental services, USET also has programs in tribal health programs and legislative priorities and policies. With all that USET and its member tribes have accomplished, it is easy to see how unity and strength are related.



Containers used for organizing a HHW collection event.

Photo courtesy Robin Campbell.

Nenana Native Council: Using Indian General Assistance Program (IGAP) for HHW

The town of Nenana, located 55 miles southwest of Fairbanks in Alaska's interior, at the confluence of the Tenana and Nenana Rivers, is a small community of 578 members. The town has implemented an impressive and comprehensive recycling program. Flyers encouraging residents to participate in Nenana's recycling program are prominently posted on bulletin boards nearly everywhere in the town, including the city office, the school, and the tribal office.

How did such a successful program get started and how is it maintained? This is the story of an exceptional HHW outreach effort and a responsive community that had a stake in its success.

Prior to the establishment of the recycling program, the Tanana River banks and the surrounding areas were being used as make-shift dump sites for the community's HHW. These wastes included abandoned

cars, and other refuse, such as paints, cleaners, oil, batteries, pesticides, refrigerators, detergents, and adhesives—all examples of HHW. Since Nenana had a history of working with the Yukon River Inter-Tribal Watershed Council (YRITWC) on issues related to waste oil, the Nenana Native Council decided to partner with the YRITWC to create a recycling plan. In 2009, Nenana was awarded an Indian Environmental General Assistance Program (IGAP) grant from EPA. Robin Campbell, the IGAP coordinator employed by the Nenana Native Council, spearheaded the recycling program.

Initially, the program focused on businesses and promoted the bulk collection of cans and cardboard boxes from restaurants and bars. Soon, the local store, city office, and courthouse were all recycling. The residents of Nenana were not far behind. Community members joined forces and soon

the town was overwhelmed with the amount of recyclables—so much so that they had to locate a place to store the materials until they could travel to Fairbanks to dispose of it.

The Nenana Native Council embodied their own environmental principles in the construction of a facility using recycled materials. The Council gained approval from the owners of an abandoned and flooded house to have it torn down so the lumber could be recycled. The new recycling center was constructed by the community from 85 percent recycled lumber. Even the paint used on the building was earth-friendly. Leftover paint collected from community members was used so that it did not have to be disposed of or stored, which could potentially pose an environmental hazard.

It took nearly three months to complete the 20x20-foot recycling drop-off center. Nenana held a community ceremony

to celebrate the opening of the facility. To build on its success, in 2011, the program expanded to include the HHW program. At that time, the Nenana Native Council applied for a small grant from the Alaska Forum of the Environment in an effort to fund storage of HHW. They were awarded the grant funds, and the Council has since obtained two 40-foot condexes to store HHW before transport to Fairbanks for disposal. The Nenana HHW program is now an ongoing, weekly HHW and solid waste collection effort carried out by a local disposal company.

Still, the program's leaders wanted greater participation. Every May, Nenana has a community-wide spring cleaning event. Just before the end of the school year, Nenana distributes approximately 800 bags to the community for trash collection. The children have a day off from school and participate in the cleanup activities from morning until lunch time. Then, the community comes together for a picnic at the baseball park. This is a great example of the power of community involvement. The tribe supplies the labor and food,



HHW recycling containers at the Nenana Recycling Center.

Photo courtesy of Robin Campbell.

while the children learn the value of recycling.

In addition to recycling, most of the tribe's HHW is also collected at this event. The event provides a great opportunity to educate the community about HHW. In particular, the community learns how important it is to separate the HHW materials from the regular trash.

To what can the success of this program be most attributed? Ms. Campbell stressed that Nenana's successful HHW

program is due to strong partnerships. She advised, "Our coordinator for EPA in Anchorage is so helpful, and you have to have the Tribal Council's support... you have to get the approval of the Council to do these things; if they see you are doing good things, they are going to support you." She also pointed out that the IGAP coordinator has to be involved and should find dedicated workers to support collection. "Recycling is an outdoor job—the guys [have to] have all their winter gear on...it's a hard job in the winter, especially for Alaska."

The Nenana Native Council of Nenana, Alaska and their HHW management effort embodies the term "helping hands." The local recycling center is now decorated with community members' handprints to symbolize that each citizen of the Nenana community is involved in, and has a "hand" in the program.



Construction of the Nenana Recycling Center.

Photo courtesy of Robin Campbell.

Eight Northern Indian Pueblos Council: Collective Conscience Leads to Collective Success



The Eight Northern Indian Pueblos Council, Inc. (ENIPC) is a non-profit organization located in north central New Mexico. Member tribes include the Tesuque, Pojoaque, Nambe, San Ildefonso, Santa Clara, Ohkay Owingeh, Picuris, and Taos Pueblos. ENIPC was founded in the 1960s by a group of visionaries who realized that with a united effort of combining resources

ENIPC leads environmental initiatives, as well as successful health, education, and economic programs for nearly all of the pueblos and tribes in New Mexico. In 2005, the Office of Environmental Technical Assistance (OETA) was created to provide technical assistance, infrastructure development and training services related to environmental protection and health. OETA is housed within

resulted in a very successful endeavor, which not only educates citizens about how to dispose of waste responsibly, but also provides an opportunity for the community to come together for proper disposal of HHW.

OETA began the tradition of HHW collection events in 2008 and has held events every other year since. The first collection for the Eight Northern Pueblos was a collectively coordinated effort. They weren't certain what volume of waste they would collect from their community members, but suspected that it would be a fairly small amount for each of the individual pueblos. Each pueblo had their own small collection event within their individual communities, then they transferred the wastes to a central location. In addition, a contractor was hired to collect, sort, and properly dispose of the various types of HHW. This shared and coordinated collection effort seemed to work well for the OETA and they repeated this collection method for the next four years.

Each pueblo provides outreach materials about individual programs, such as posters, brochures, and advertisements. OETA also creates and distributes outreach materials, and provides answers to questions that tribes may have about HHW disposal, such as identifying HHW items. OETA extends strategic outreach to schools to develop



Materials collected at the ENIPC HHW collection event.

Photo courtesy of Sage Deon.

and populations, they would be in a better position to compete for federal funds. Since that time, ENIPC has evolved into a conduit for federal and state programs that not only serve the Eight Northern Pueblos, but many of the surrounding tribes and communities as well.

the Environment Department of ENIPC.

This mission-driven consortium organizes HHW collection events which provide community members the opportunity to identify, gather and transport HHW to a central location. OETA's efforts have



Additional materials collected at the ENIPC HHW collection event.

Photo courtesy of Sage Deon.

an environmental ethic and in the hope that young people will encourage their parents to participate in the collection event for their community.

The ENIPC/OETA recognizes the need to make these programs sustainable into the future, by funding the costs of the collection events. Historically,



ENIPC/OETA was able to obtain funds through the Hazardous Waste Management Grant Program for Tribes and a New Mexico Recycling and Illegal Dumping (RAID) grant, for collection events through 2011. Officials are working to secure resources into the future. Sage Deon, an OETA Environmental Specialist, has gained experience from managing the HHW collection program for various pueblos and tribes. She advises tribes who hire contractors for their HHW collections to consider that contractors may provide different kinds of assistance. Some may help with specific aspects of the collection,

while others execute the entire collection and transfer of HHW waste. When hiring a contractor, the organizers should clearly communicate which jobs are to be completed by the contractor, and which are expected to be completed by the tribe.

OETA also provides advice to pueblo and tribal residents who have questions or request assistance. This open line of communication has been the key in educating the tribes and is one of the reasons the HHW collection events have been so successful.

Successes of the 2010 ENIPC Tribal Hazardous Waste Management Program

- The ENIPC Hazardous Waste Management Program worked with 22 pueblos, tribes and Ysleta del Sur Pueblo in Texas.
- The program increased public health and environmental health through hazardous waste management training, public education, and land protection.
- Through a grant received from EPA, ENIPC/OETA removed more than 10,500 pounds of HHW collected from the eight pueblos that participated in the collection events.
- The main types of waste collected were paint related materials, aerosols, corrosive acids, corrosive bases, gas cylinders, used oil, antifreeze, and alkaline batteries.





Recycled wood used in the construction of Nenana's Recycling Center.

Photo courtesy of Robin Campbell of Nenana Native Council.

Funding Sources: Grant Opportunities To Support the Groundwork for HHW Programs

EPA provides funding opportunities in the form of grants, cooperative agreements, and interagency agreements to assist tribes and inter-tribal consortia with HHW management activities. These activities may include tribal capacity building for the development and implementation of waste management programs, outreach/education, and compliance assurance/enforcement. General information on these and other HHW grants and funding for tribes is available at: <http://www.epa.gov/region9/waste/tribal/house-waste.html#fund>. More specific information on the funding sources below may be found through the Catalog of Federal Domestic Assistance (CFDA) website at: www.cfda.gov.

In addition, some states offer grant programs to help fund

HHW management activities. Listed below are examples of EPA-funded grant programs and other federal/state grant programs.

Environmental Protection Agency Grant Opportunities

Indian Environmental General Assistance Program (IGAP) **[CFDA Reference Number 66.926](#)**

Authorized under the Indian Environmental General Assistance Program Act of 1992, the Indian General Assistance Program (IGAP) provides funding for capacity building and management capabilities for federally-recognized tribes and inter-tribal consortia to develop environmental programs. These grants can be used toward activities such as planning and conducting HHW collection events and/or programs, and

establishing recycling collection areas and support facilities. Funding for IGAP has increased from \$8.4 million in the early 1990s to an estimated \$64 million for fiscal year 2013. IGAP funding may be applied to identify baseline environmental needs; establish administrative, legal, technical and enforcement capability; foster compliance through programs, ordinances, education and outreach; communications capability; and management. IGAP grants are administered by EPA's American Indian Environmental Office and are negotiated by EPA Regional Indian Program Managers and Coordinators.

The list of regional coordinators is located on-line at: www.epa.gov/tribalportal/contactinfo/regcontacts.htm. For more information, visit EPA's IGAP website, at: <http://www.epa.gov/tp/grantsandfunding/gap.htm>.

Community Action for a Renewed Environment (CARE) Program

CFDA Reference Number 66.035

Community Action for a Renewed Environment (CARE) Program is a competitive grant program that supports analyses, studies, evaluations, surveys, investigations, conferences, demonstrations, and special purpose projects which empower communities to reduce risks from exposures to toxic pollutants in the air, in the water and on the land through collaborative action at the local level. For more information, visit EPA's CARE website at: www.epa.gov/care.

Alternative or Innovative Treatment Technology Research, Demonstration, Training and Hazardous Substance Research Grants

CFDA Reference Number: 66.813

The Alternative or Innovative Treatment Technology Research, Demonstration, Training, and Hazardous Substance Research Grants are awarded for: (1) a program of research, evaluation, testing, development, and demonstration of alternative or innovative treatment technologies which may be utilized in response actions to achieve more permanent protection of human health and welfare and the environment; (2) a technology transfer program including the development, collection, evaluation, coordination and dissemination of information relating to the utilization of alternative or innovative treatment technologies for

response actions; (3) a program of training and evaluation of training needs in the procedures for the handling and removal of hazardous substances for employees who handle hazardous substances and training in the management of facilities at which hazardous substances are located and in the evaluation of the hazards to human health presented by such facilities for state and local health and environmental agency personnel; and (4) a program of research with respect to the detection, assessment, and evaluation of the effects on and risks to human health of hazardous substances and detection of hazardous substances in the environment. For more information visit: <http://www.epa.gov/tp/grantsandfunding/topic-waste.htm#hwr>.

Brownfields Assessment and Cleanup Cooperative Agreements

CFDA Reference Number 66.818

Brownfield sites are properties whose expansion, redevelopment, or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. The objectives of the brownfield assessment revolving loan fund and cleanup cooperative agreements (project grants) are to provide funding to inventory, characterize, assess, and conduct planning and community involvement related to brownfield sites; to capitalize a revolving loan fund and provide subgrants to carry out cleanup activities at brownfield sites; and to carry out cleanup activities at brownfield sites that are owned by the grant

recipient. For more information visit: <http://www.epa.gov/brownfields/plocat.htm>.

Region 9: Pacific Southwest Tribal Grant Opportunities

The following website lists current grant opportunities and additional resources in Region 9 for tribal communities: <http://www.epa.gov/region09/waste/solid/funding.html>. Grants can be used to pay for a new position, contractor support, outreach materials, and supplies.

Region 10: Pacific Northwest Tribal Grant Opportunities

The following website lists current grant opportunities and additional resources in Region 10 for tribal communities: <http://yosemite.epa.gov/R10/TRIBAL.NSF/webpage/Tribal+Grants/>. Past opportunities have included a HHW Collection and Disposal Grant Program.

Hazardous Waste Management Grant Program for Tribes

CFDA Reference Number: 66.812

The Hazardous Waste Management Grant Program for Tribes provides assistance to federally-recognized tribes and inter-tribal consortia for developing and implementing hazardous waste programs; building capacity to improve and maintain regulatory compliance; and developing solutions to address hazardous waste management issues that are impacting tribal lands. The grants support implementation of HHW collection events and/or programs that provide sustainable or long-term solutions for the disposal of

HHW for the community. For more information visit: <http://www.epa.gov/waste/wyl/tribal/finance.htm>.

Grant Writing Resources

<http://www.epa.gov/ogd/recipient/tips.htm>

General guidance on how to write a successful EPA grant application.

Department of Housing and Urban Development Grant Opportunities

Indian Community Development Block Grant Program

[CFDA Reference Number 14.862](#)

The U.S. Department of Housing and Urban Development offers funding in three main categories including: Housing Rehabilitation, Community Facilities Infrastructure Construction, and Economic Development in the form of a variety of commercial, industrial, and agricultural projects.

These grants can be used to support a HHW program. One tribe established a waste and recycling center with funding awarded from this program. For more information visit:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/ih/grants/icdbg.

The Healthy Homes Demonstration Grant Program

The Healthy Homes Program addresses multiple childhood

diseases and injuries in the home. The initiative takes a comprehensive approach to these activities by focusing on housing-related hazards. Healthy Homes Grants focus on researching and demonstrating low-cost, effective home hazard assessment and intervention methods, as well as on public education that stresses ways in which communities can mitigate housing-related hazards, such as safer alternatives to household chemicals and safe disposal of HHW. For more information visit: http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/hhi/hhd.

U.S. Department of Energy Funding Opportunities

U.S. Department of Energy Tribal Energy Program

The U.S. Department of Energy offers funding opportunities and grants under the Tribal Energy Program (TEP) for renewable energy and energy efficiency projects on tribal lands. For more information visit: http://apps1.eere.energy.gov/tribalenergy/financial_opportunities.cfm.

State-Specific Funding Opportunities

New York Household Hazardous Waste State Assistance Program

New York passed an Environmental Protection Act in 1993

which authorizes New York to provide reimbursement funding of up to 50 percent of the costs of municipal HHW collection programs including single-day collections, mobile collections, or a permanent collection facility. Reimbursement funding is provided through the Department of Environmental Conservation (DEC) HHW State Assistance Program. Any Native American tribe or nation located within New York State is eligible for this grant. For more information visit: <http://www.dec.ny.gov/chemical/8778.html>.

California Integrated Waste Management Board – Household Hazardous Waste & Used Oil Grants

CalRecycle, California's Department of Resources Recycling and Recovery, offers HHW and used oil grant programs. California Indian reservations and rancherias are eligible if they have direct responsibility for HHW management. Grant recipients may apply the grant toward establishing or expanding HHW collection programs. Awards range from \$50,000 through \$150,000. For more information visit: <http://www.calrecycle.ca.gov/HomeHazWaste/Grants.htm>.

Resources

Earth 911

<http://earth911.com/>

The Earth 911 Recycling Directory is a comprehensive directory that contains information on how to recycle more than 240 different products. Earth911 also offers a toll-free, bilingual hotline (1-800-CLEANUP) to assist consumers who wish to find local recycling and HHW collection locations.

Example of a Tribal Household Hazardous Waste Management Plan Created by the Hopland Band of Pomo Indians

<http://www.epa.gov/region9/waste/tribal/pdf/hopland-hw-manage-plan.pdf>

The example may assist in a community's development of a HHW Management Plan.

General Household Hazardous Waste Information

<http://www.epa.gov/waste/conservematerials/hhw.htm>

Household Hazardous Waste: A Guide for Tribal Members

<http://www.epa.gov/region9/waste/tribal/pdf/HHW-Brochure-Tribal-Members-Ready-to-Print.pdf>

The guide answers questions such as how to avoid risks, what to look for on container labels, why HHW is dangerous, and how to dispose of HHW safely. The brochure also offers alternatives to HHW products.

Household Hazardous Waste Collection: A Program Guide for Tribal Governments

<http://www.epa.gov/region9/waste/tribal/pdf/final-hhw-guide-oct-2007.pdf>

The guide, created by Region 9, provides tribal governments with the tools to start or link to an existing HHW collection program. It specifically deals with tribal issues for HHW collection.

Household Hazardous Waste: Steps to Safe Management

http://cfpub.epa.gov/npstbx/files/epa_house_haz_waste.pdf

The EPA publication lists steps for the management of HHW. It documents the dangers of improper disposal and provides safe management methods.

Region 5: Waste Program Resource Guide

http://www.epa.gov/region5/waste/solidwaste/tribal-resource-guide/resource_guide_program_summaries.html

Region 7: Solid & Hazardous Waste Support for First Nations in Region 7

http://www.epa.gov/region7/waste/solidwaste/waste_mgmt_indian.htm

Region 7 provides a list of solid waste management funding sources and creative ways to reduce and manage municipal solid waste.

Tribal Guide for Managing Household Hazardous Waste

http://www.srmt-nsn.gov/news/detail/saint_regis_mohawk_tribe_publishes_household_hazardous_waste_manual

The manual, created by the St. Regis Mohawk Tribe, is a “start-to-finish” set of guidelines on setting up a program. The guide provides information on program development, community outreach and education, financing, the HHW collection processes, and safe handling techniques of HHW.

Yukon River Inter-Tribal Watershed Council: Backhaul A “HowTo” Guide

http://www.yritwc.org/Portals/0/PDFs/2008_backhaul_manual.pdf

The guide, created by the Yukon River Inter-Tribal Watershed Council provides information and tools that tribal communities can use to create their own backhaul programs.

Zender Group Household Hazardous Wastes Handout

http://www.zendergroup.org/docs/household_haz%20feb05.pdf

The factsheet explains the basics of HHW, including how to recognize HHW products, how to reduce and discard HHW, safer alternatives to HHW products, important tips, and additional resources.

*EPA cannot attest to the accuracy of non-EPA information provided by these third-party sites or any other linked site. EPA is providing these links for your reference. In doing so, EPA does not endorse any non-government websites, companies or applications.

Game Time!

Find the HHW in the maze and take it to the collection event. Help your family clean out your home and make it safe. Then recycle the items at the event!

Maze answer on page 25.

	Petroleum Jelly
	Cedar Chest
	Drain Cleaner
	Lamp
	Bucket
	Baking Soda
	Seed Packets
	Picture Frame
	Furniture Cleaners
	Antifreeze for a Car
	Marigold Flower
	Antibacterial Cleaner
	Toilet Cleaner
	Flour
	Insect Baits
	Watering Can
	Oatmeal Bath Soak
	Oven Cleaner
	House Plant



Lets take a look at the items we found in the maze and in our home and see why some of the items are toxic.

Toilet Cleaner

There are chemicals found in toilet cleaners that are also found in pesticides (that stuff used for killing bugs in the garden!). These chemicals can be extremely dangerous. Never mix toilet bowl cleaner with any other cleaning products. Doing so can result in poisonous gasses being released and cause very serious breathing problems. Toilet cleaner can be very irritating to your eyes and skin and is harmful if you swallow it.



Oven Cleaner

The main ingredient in oven cleaners is a chemical called lye. Lye is corrosive. Corrosive means that the chemical can eat through other materials or even burn your skin. Never swallow anything with corrosive ingredients inside! Only an adult should use products like this.



Antibacterial Cleaner

Antibacterial cleaners usually contain ingredients or chemicals which help break up dirt and kill bacteria and a fragrance to make it smell good. Antibacterial cleaners are very irritating to your eyes and skin and can burn your throat. If you get some of the cleaner on your skin or in your eyes, wash it off immediately. Anti-bacterial cleaners can be harmful if not used properly.



Antifreeze

Antifreeze has a hazardous ingredient called ethylene glycol. The ingredient is extremely poisonous and can cause a lot of damage to your body. Sometimes it can spill or leak on the ground from cars and trucks. If you see a bright green or yellow liquid on the ground in the garage, driveway, parking lot, or street, keep your dog and pets away from the puddle and let an adult know about it.



Drain Cleaners

Drain cleaners are toxic because they have ingredients such as lye and sulfuric acid, which have dangerous fumes and can cause burns on your skin if the product touches you. Make sure only adults use this product.



Furniture Cleaners

Furniture cleaners that are made for wood may contain petroleum distillates and oil of cedar. The chemicals in furniture polish or cleaners may irritate your skin, eyes and respiratory tract (that is your throat, lungs and wind pipe). If swallowed, furniture cleaners can cause nausea, vomiting, and you may need to seek medical help. Before using these products, you need to be sure to always read the label first because the label contains valuable safety information as well as how to use the product properly.



Insect Baits

Adults use insect baits to get rid of insects inside of their homes. Usually insect baits are enclosed in containers so if you do not open the container you will not be exposed to the pesticides inside of them. If you do find insect bait, do not touch it and keep your pets away from it as well.



Maze answer from page 24.

These products are explained in more depth in an interactive game called *Learn More About the Chemicals Around Your House* from EPA located here: <http://www.epa.gov/kidshometour/tour.htm#view>





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