

# Household Hazardous Waste Collection

## A Program Guide for Tribal Governments



## Introduction - Use of this Guide

### *Purpose*

This guide provides tribal governments with the tools to start or link to an existing household hazardous waste (HHW) collection program. The guide describes what household hazardous waste is and presents ideas on how to collect and handle different types of household hazardous waste.

### *U.S. EPA's relationship with tribes*

The U.S. Environmental Protection Agency's 1984 Indian Policy lays the groundwork for EPA assistance on tribal lands. EPA is committed to working closely, in a government-to-government relationship, with tribal governments in making decisions and managing environmental programs affecting tribal lands. EPA's Tribal Solid Waste Program works directly with tribal governments to address solid waste issues, such as cleanup of open dump sites, developing integrated solid waste management plans, and siting solid waste landfills.



**Introduction Use of this Guide**

1. Purpose
2. U.S. EPA's relationship with tribes

**Chapter 1 Information about Household Hazardous Waste..... 2**

1. What is household hazardous waste?
2. What's the difference between household hazardous waste and other hazardous waste?
3. Products found in homes that are typically considered household hazardous waste
4. How do states in the Pacific Southwest define household hazardous waste?
5. Why is it important to dispose of household hazardous waste properly?
6. How do you reduce household hazardous waste?
7. What types of household hazardous waste collection programs exist?
8. What safety precautions should be taken when collecting and storing household hazardous waste?

**Chapter 2 Household Hazardous Waste Collection Programs..... 6**

1. Frequently asked questions about household hazardous waste collection
2. Household hazardous waste collection program options
3. Household hazardous waste collection program participation rates
4. How are household hazardous waste collection programs funded?
5. How can I reduce costs in the future?
6. Training for household hazardous waste handling

**Chapter 3 Disposal of Household Hazardous Waste..... 13**

1. Frequently asked questions on disposal
2. Disposal of specific household hazardous waste: used oil, batteries, rechargeable batteries, e-waste, mercury-containing lamps, mercury thermometers, and needles (sharps)

**Chapter 4 Resources..... 15**

1. U.S. EPA Pacific Southwest/Region 9 Tribal Solid Waste Team contact information
2. State environmental contacts
3. Internet resources and household hazardous waste publications

# CHAPTER 1

## Information about Household Hazardous Waste

### What is a household hazardous waste?

The federal government defines household hazardous waste (HHW) as, “leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients.” Examples include paints, cleaners, oils, batteries, and pesticides that contain potentially hazardous ingredients. These products require special care when you dispose of them. Household hazardous waste does NOT include waste from businesses, government or schools. It also does NOT include explosives or radioactive waste, regardless of origin. Household hazardous waste is exempt from federal hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA) Subtitle C. Programs that collect such waste do not need a Subtitle C permit or EPA identification number. Household hazardous waste can be transported without following hazardous waste transportation regulations.

### What is the difference between household hazardous waste and hazardous waste as defined by the federal government?

Hazardous waste (HW) is waste that is produced by businesses, government agencies, or schools, and that contains corrosive, toxic, explosive, radioactive, ignitable, toxic or reactive materials. EPA, under RCRA Subtitle C, strictly regulates the storage, transportation, treatment, and disposal of hazardous waste. These regulations apply to businesses that produce a certain threshold of hazardous waste.

Although household hazardous waste is exempt from federal hazardous waste regulations, some states follow stricter regulations than the federal government. State regulations are included in this guide to provide tribes with information on the differences between federal and state regulations.

---

### Products in homes that are typically considered household hazardous waste

#### Cleaning Products

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

#### Indoor Pesticides

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

#### Automotive Products

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

#### Workshop/Painting Supplies

- Adhesives and glues
- Fixatives and other solvents
- Furniture strippers
- Oil or enamel based paint
- Paint strippers and removers
- Paint thinners and turpentine
- Photographic chemicals
- Stains and finishes

#### Lawn and Garden Products

- Fungicides/wood preservatives
- Herbicides
- Insecticides

#### Miscellaneous

- Batteries
- Driveway sealer
- Fluorescent light bulbs
- Home heating oil
- Kerosene
- Mercury thermostats or thermometers





### **How do states in the Pacific Southwest define household hazardous waste?**

**California:** California has stricter definitions than the federal government. Household hazardous waste is not exempt from state regulations and is considered hazardous waste as soon as a collection program receives the waste. It is illegal to place fluorescent lamps, batteries, televisions and computer monitors in the trash.

**Nevada and Arizona:** The state regulations are the same as the federal regulations.

**Tribes** may decide to include stricter definitions and guidelines than the federal regulations for management of household hazardous waste in their “Integrated Solid Waste Management Plan.”

### **Why is it important to dispose of household hazardous waste properly?**

Household hazardous waste should be disposed of properly to prevent hazardous materials from ending up in the garbage or being dumped on the reservation where it could harm people or animals. Such dumping may endanger cultural sites, contaminate water and soil, harm plant and animal life, as well as spoil the natural beauty of the land.

### **How do you reduce household hazardous waste?**

Any tribal household hazardous waste collection program should include a reduction strategy. A key component of this strategy is consumer

education. Resources are available on the Internet about home alternatives to household hazardous waste.

- U.S. EPA in conjunction with Purdue University developed a comprehensive guide comparing the effectiveness of commercial cleaners vs. alternative cleaners such as vinegar, borax and ammonia:  
<http://www.purdue.edu/dp/envirosoft/housewaste/src/research.htm>
- The City of Santa Monica, CA created a list comparing commonly used household products and environmentally safer products:  
[http://santa-monica.org/epd/printed\\_materials/HHW\\_Alts\\_Display\\_2005.htm](http://santa-monica.org/epd/printed_materials/HHW_Alts_Display_2005.htm)
- The City of San Francisco developed a list of environmentally preferable cleaners:  
<http://www.sfenvironment.com/aboutus/innovative/epp/products.htm>

### **What type of household hazardous waste collection programs exist?**

See also Chapter 2, Household Hazardous Waste Collection Programs, for more detailed information on possible options.

#### **1) One-time collection event**

Hire a contractor to manage and dispose of the household hazardous waste on the reservation. This option is best for tribes with little or no access to county collection programs, or who are a great distance from county collection sites. The household hazardous waste is typically stored in a locker until the contractor hauls the waste to a transfer, storage, or disposal facility. At that point, the hauler separates the household hazardous waste into materials to be recycled, incinerated, or taken to a landfill.

#### **2) Participate in a nearby tribe, county, or city's collection event**

This option is best for tribes who are just beginning a household hazardous waste collection program as well as tribes with easy access to a nearby program. The frequency of collection dates varies greatly depending on the area. Please check with nearby counties, cities, or tribes to see how often collections are held.



### **3) Start a multi-community collection event**

This is a cooperatively run program with other tribes or cities. Each participating community runs simultaneous household hazardous waste collection events. A special collection truck or van travels from site to site picking up each community's household hazardous waste on an as-needed basis as decided by the consortium. This option is best for tribes interested in running their own collection program, but that cannot afford to do so independently.

### **4) Start a tribal permanent collection program**

This option entails designing a program that would run on an ongoing basis, either through a permanent drop-off location for your community or through curbside collection. The tribe may hire one contractor to deal with the household hazardous waste on an as-needed basis, negotiate directly with individual vendors, or link to the county collection program. Negotiating with individual vendors is recommended for tribes with more than 50,000 residents, as individual vendors will often require large volumes of waste.

### **Special programs in California**

In California, to help reduce costs, some household hazardous waste programs hire contractors to manage most household hazardous waste items, but choose to handle other items themselves. For example, some programs send their used oil, computer monitor and television cathode-ray tubes (CRT), and lamps to be recycled instead of having the contractor handle these materials for disposal. For locations that will

accept household hazardous waste materials for recycling, please see Chapter 3.

### **What safety precautions should be taken when collecting and storing household hazardous waste?**

**Storage:** It is important to have a storage and disposal plan in place before collection of the waste. The plan should outline the collection program, including how long the waste will be stored and how it will be transported and disposed of.

### **Preparing your storage and disposal plan:**

Identify whether the waste will be transferred to a hazardous waste landfill or municipal transfer station. Your storage and disposal plan should include sections on chemical safety, staff training, and emergency response.

### **Chemical Safety**

- As a rule, do not store household hazardous waste for more than 90-120 days.
- Keep chemicals in their original containers. Do not mix chemicals.
- Take care to store incompatible classes of chemicals in separate storage areas.
- If the chemical is unlabeled, ask what the original owner kept in the container.
- If you receive unknown substances, keep them separate from other chemicals to prevent mixing.



- Be sure all containers are securely closed and provide secondary containment to ensure that leaks will be confined.
- Look at the Material Safety Data Sheets (MSDS) which include the chemical name, company contact information, hazards, and appropriate safety precautions. Companies are required to publish a MSDS for every chemical they produce. You can find the MSDS for a specific product by directly contacting the company or by searching on the Internet. The MSDS National Repository website provides a free search engine for finding material safety data sheets:  
<http://www.msdssearch.com/DBLinksN.htm>

### *Staff Training*

- Staff should know how to pack and separate chemicals correctly.
- Staff should use personal protective clothing such as eye protection, gloves, and splash-proof clothing or Tyvec suits.
- Have a self-contained breathing apparatus on hand for emergencies. Staff must have

training to use a respirator and a self-contained breathing apparatus. The tribe is required to have a medical monitoring plan under Federal Regulation 1910.120 if it has a self-contained breathing apparatus.

### *Emergency Response*

- Prepare a list of emergency numbers: police department, fire department, nearest hospital and/or health care facility, etc.
- Notify tribal and/or local police, fire and emergency response departments of the household hazardous waste collection event.
- Hold the event in a well-ventilated area.
- Leave a space between categories of HHW so you can see if containers are leaking.
- Use an area that is sheltered from the wind and rain.



## CHAPTER 2

# Household Hazardous Waste Collection Programs



### Frequently asked questions:

#### *What is the typical cost for a household hazardous waste collection program?*

See box to the right. If the tribe hires a contractor to run a one-time event, it will cost between \$0.50 and \$2.00 per pound of waste. A contractor can be hired to either run the entire program; provide staff, materials and transportation; or only to transport the waste at the end of the collection event. Contact other counties or tribes in your geographic area that have held events to get a better understanding of costs.

#### *How much household hazardous waste should I expect?*

The average amount varies depending on whether you are in a rural or urban area, if a limit is placed on the amount households can bring, and the existing waste disposal options. The typical amount collected in metro and rural areas differs.

- Metro areas vary between 45 and 75 pounds per household
- Rural areas vary between 50 and 150 pounds per household

#### *What is the typical participation rate?*

Participation depends on how extensively the program or event is advertised and how far

residents have to travel to dispose of the HHW. A tribe located in Northern California held a one-day event and got about a 35% participation rate. This tribe was able to achieve such a high participation rate by holding the event in an accessible location and providing free pickups for tribal elders. However, many other communities have reported rates as low as 2-3%. The participation rate will also vary depending on how often household hazardous waste collection events are held.

#### *What assistance can EPA provide in developing a collection program?*

The EPA Pacific Southwest Tribal Solid Waste Team can help to find program funding, review planning documents, and provide general technical assistance. For contact information, see Chapter 4, "Resources."

#### **Cost formula:**

##### **Total cost =**

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

##### **Tribal staff time =**

hourly rate x number of hours per person x number of people

*\*Other costs include sending out and evaluating requests for bids; advertising the event via newsletters, radio, TV etc.; vehicle use and fuel for vehicles; 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 aim high when calculating costs. Liquids, such as oil, are measured in gallons or liters, not pounds. Approximate conversion: 30 gallons (about half of a 55-gallon drum) of waste with a density similar to water weighs about 220 pounds (100 kilograms).*



## Household hazardous waste collection program options

There are four common collection program options:

1. Hire a contractor to run a one-time collection event.
2. Participate in a nearby tribe, county or city's household hazardous waste collection event.
3. Start a multi-community household hazardous waste collection event with nearby tribes and/or towns.
4. Start a tribal permanent household hazardous waste collection program.

### 1: Hire a contractor to run a one-time collection event

#### Planning

1. Make a project timeline. Start planning six months to one year in advance.
2. Determine what type and how much household hazardous waste the reservation generates by taking a sample of residents' household garbage and/or waste that is illegally disposed of in the community. This is also known as a waste stream analysis.
3. Decide how the household hazardous waste will be collected prior to bringing it to the collection event:  
Option 1: Residents bring it to a central location on the reservation.  
Option 2: Residents transport the waste directly to the collection event.  
Option 3: Tribal environmental staff collect it directly from residents' homes by appointment or on a regularly scheduled day.
4. Develop and send out a request for proposals to contractors to run the event, lab pack\* the waste and bring it to a transfer, storage or disposal facility (TSDF).
5. Evaluate bids.
6. Develop and distribute outreach materials.
7. Designate an area to store waste until it is taken to the disposal station.
8. Advertise the collection day to residents via radio, newsletter, television, and tribal gatherings.

*\*Lab Pack: Filling drums with many small containers packed in non-biodegradable absorbent materials.*

#### Possible costs

*The cost per pound of household hazardous waste disposal generally ranges between \$0.50 and \$2.00.*

- This includes the cost for hiring a contractor to collect and dispose of the waste.
- This does not include tribal administrative or staffing costs on the day of the event.
- Costs vary depending on the amount and type of waste. Some household hazardous waste such as used motor oil can be recycled.

## 2: Participate in a nearby tribe, county, or city's collection event

### Planning

If a nearby tribe, county, or city holds a monthly or annual collection day, you may be able to participate.

1. Make a project timeline. Start planning six months to one year in advance.
2. Determine what type and how much household hazardous waste the reservation generates by taking a sample of residents' household garbage and/or waste that is illegally disposed of in the community. This is also known as a waste stream analysis.
3. Contact a neighboring city, county or tribe to see if they will accept household hazardous waste from outside of their jurisdiction.
4. Decide how the household hazardous waste will be collected prior to bringing it to the collection event:  
Option 1: Residents bring the waste to a central location on the reservation.  
Option 2: Residents transport the waste directly to the collection event.  
Option 3: Tribal environmental staff collect the waste directly from residents' homes by appointment or on a regularly scheduled day.
5. Develop and distribute outreach materials.
6. Designate an area to store the waste until it is taken to the disposal station.
7. Advertise the collection day to residents via radio, newsletter, television, and tribal gatherings.

### Possible costs

- Consult with neighboring tribe/county/city to determine if the tribe will be charged a user fee.
- Staff safety training.



### 3: Start a multi-community collection event with nearby tribes and/or towns

*How this works: Tribes and/or towns in close proximity coordinate a multi-site household hazardous waste collection event. A truck that is designed to safely transport household hazardous waste (often called a hazmobile) will visit a designated spot at a pre-determined time in each participating community.*

#### **Planning**

1. Make a project timeline. Start planning six months to one year in advance.
2. Determine what type and how much household hazardous waste the reservation generates by taking a sample of residents' household garbage and/or waste that is illegally disposed of in the community. This is known as a waste stream analysis.
3. Form a partnership with nearby tribes and/or towns. Entering cooperative agreements with others can lower collection costs in the long run, but it may take a lot of work to form the partnerships in the beginning. Keep the following in mind when planning:
  - a. Who are the potential partners?
  - b. Does anyone currently have a vehicle appropriate for transporting the waste?
  - c. Does the staff need to be trained?
  - d. Do the partners have the financial resources to start the program? If not, are there loans or grants available?
4. Meet to discuss logistics:
  - a. Who will lead the event? One person? A representative from each group?
  - b. Who will manage the finances?
  - c. What needs to be purchased? A truck? Protective gear for staff?
  - d. Will the vehicle be leased, purchased or rented?
  - e. How much money will each entity contribute?
5. Determine if a single contractor will be hired to handle all the waste, if the consortium will hire different vendors for each waste category, or if the waste will be brought to a local city or county-administered collection facility.
6. Decide how the waste will be collected prior to the collection event:

Option 1: Residents bring the waste to a central location on the reservation.

Option 2: Residents transport the waste directly to the collection event.

Option 3: Tribal environmental staff collect the waste directly from residents' homes by appointment or on a regularly scheduled day.
7. Determine what will happen to the waste once it is collected.
8. Develop and distribute outreach materials.
9. Designate an area to store the waste until it is taken to the disposal facility.
10. Advertise the collection day to residents via radio, newsletter, television, and tribal gatherings.

#### **Possible costs**

- Leasing/buying/renting a vehicle for picking up each community's waste.
- Staff safety training.
- Fees charged by contractor for transferring and/or disposing of the waste.

## 4: Start a tribal permanent household hazardous waste collection program

### Planning

1. Make a project timeline. Start planning six months to one year in advance.
2. Determine what type and how much household hazardous waste the reservation generates by taking a sample of residents' household garbage and/or waste that is illegally disposed of in the community. This is known as a waste stream analysis.
3. Determine how the waste will be collected. Will the tribe offer curbside collection or a drop-off center? If the tribe offers a drop off center, how often will it be open?
4. Build a facility to store the waste if necessary. This includes purchasing proper storage containers and securing the area from potential break-ins, vandalism, or unauthorized entry.
5. There are options for dealing with the waste once it is collected:
  - Option 1: Hire a contractor to transport all of the waste off the reservation. The contractor will bring the waste to a transfer, storage or disposal facility where s/he will sort the waste by category (recycle, incinerate, landfill). The tribe can specify in the contract that it wants all recyclable waste to be recycled rather than incinerated or landfilled.
  - Option 2: Contract with different vendors for each type of recyclable item and hire another contractor to deal with all non-recyclable items.
  - Option 3: Enter into a formal or informal agreement with a local or county collection program and bring the waste to the local collection facility.
6. Train staff. Typical training includes the standard 24 or 40 hour Hazardous Waste Operators Health & Safety Training (HAZWOPER). It may also be beneficial to contact other household hazardous waste collection facilities to arrange to work with those facilities directly to gain hands-on experience.
7. Develop and distribute outreach materials.
8. Advertise the collection day or drop-off center to residents via radio, newsletter, television and tribal gatherings.

### Possible costs

- Construction of waste drop-off center or transfer station
- Staff training
- Vehicle that can safely transport household hazardous waste on or off the reservation
- Labor costs for running collection
- The fee charged by local household hazardous waste collection facility
- Contractor fees

### Household hazardous waste collection participation rates

The participation rate of any collection program depends on a number of factors including:

- 1) Residents' method of transferring the household hazardous waste to the collection site:
  - Option 1: Tribal environmental staff periodically collect the waste from residents' homes.
  - Option 2: Residents will be responsible for bringing the waste to the collection site. If so, when and how often can drop-offs be made?
  - Option 3: Residents make an appointment to have their waste picked up. Elderly residents and those without transportation may be less likely to participate without special assistance. However, individual pickups could significantly increase costs.
- 2) Proximity to collection site. The closer the site is to residents, the higher the participation rate will be.
- 3) Weather. Residents are less likely to participate in bad weather.
- 4) Extent of outreach/education. How many people were notified of the program? How often was it advertised? Where was it advertised?

## Collection Options Pros and Cons

(see table below)

### How are household hazardous waste collection programs funded?

#### Start-up costs:

- EPA Tribal General Assistance Program (GAP) Grants:  
<http://www.epa.gov/region09/indian/grants.htm>
- EPA tribal solid and hazardous waste grant funding:  
<http://www.epa.gov/tribalmsw/finance.htm>
- The State of California offers household hazardous waste grant for which tribes within California are eligible:  
<http://www.ciwmb.ca.gov/HHW/Grants>
- Tribal funds: general fund and/or user fees.

#### On-going costs:

Federal grants cannot pay for ongoing operation and maintenance costs associated with a collection program. Other sources of funds will be needed to cover ongoing costs. Here are a few examples that have worked for tribes:

- Create a tribal solid waste utility to charge user fees to businesses and/or residents. Include solid waste fees in other utility bills (such as water or power bills).
- Create partnerships with nearby tribes or cities to run a joint household hazardous waste collection program. Sharing equipment, staff, and experience could lower costs.
- Find other sources of tribal funds.

### How can I reduce costs in the future?

Reduce your residents' use of products that become household hazardous waste. The fewer products in your community that could be considered hazardous, the fewer items that the tribe potentially needs to deal with for disposal. Here are a few ideas that may help your community reduce these products:

- Use rechargeable batteries when possible
- Switch your cleaning products to environmentally friendly cleaners
- See Chapter 1, "How do you reduce household hazardous waste?" for more examples.

## Collection Options Pros and Cons

Collection Option	Pro	Con
<b>One-time collection event</b>	<ul style="list-style-type: none"> <li>• Contractor handles the household hazardous waste</li> <li>• May not need to train tribal staff</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive (\$12-20,000)</li> <li>• Hiring a contractor means tribal staff does not gain experience for future collection events</li> </ul>
<b>Participate in locally held county-wide HHW collection event</b>	<ul style="list-style-type: none"> <li>• Less expensive than hiring a contractor</li> </ul>	<ul style="list-style-type: none"> <li>• County may limit the amount and type of waste you can bring (depends on the county)</li> </ul>
<b>Multi-community collection event</b>	<ul style="list-style-type: none"> <li>• Potentially less expensive in the long run because costs will be shared</li> <li>• More control over program</li> <li>• Can build on already existing relationships or cooperative agreements with other tribes or municipalities</li> </ul>	<ul style="list-style-type: none"> <li>• Need well-trained staff</li> <li>• Start-up costs may be high in terms of staff time and investment in a vehicle</li> <li>• Potential liability</li> </ul>
<b>Permanent in-house collection program</b>	<ul style="list-style-type: none"> <li>• Potentially less expensive in the long-run</li> <li>• More control over program</li> </ul>	<ul style="list-style-type: none"> <li>• Need well-trained staff</li> <li>• Start-up costs may be high</li> <li>• Potential liability</li> </ul>



### Training for household hazardous waste handling

*Do I need to be trained to deal with household hazardous waste?*

Yes. It is recommended that anyone handling potentially hazardous materials be trained in safe handling.

It may be beneficial to contact other collection facilities to see if it is possible to work with those facilities directly for a short time to gain hands-on experience.

It is advisable that the program manager has Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training. The manager may wish to hold on-site staff safety trainings on recognition and handling of different chemicals.

*What trainings are available?*

Hazardous Waste Operations and Emergency

Response Standard (HAZWOPER) Training is highly recommended for persons dealing with household hazardous waste. There are different levels of training available.

- The 24-hour HAZWOPER training is a basic level training.
- The 5-day, 40-hour HAZWOPER course is designed for people involved with the investigation and cleanup of uncontrolled hazardous waste sites and, to a lesser extent, response to accidents involving hazardous materials. It provides basic information needed to meet the 40 hours training requirements of 29 CFR 1910.120 (e)(3)(i) Hazardous Waste Operations and Emergency Response (HAZWOPER).

Various online and on-site trainings are offered free of charge by NETI Online, the U.S. EPA National Enforcement Training Institute online training resource site.

<http://www.netionline.com>

The U.S. Department of Transportation manages the Hazardous Materials Emergency Preparedness (HMEP) grant program that provides financial and technical assistance as well as national direction and guidance to enhance state, territorial, tribal, and local hazardous materials (hazmat) emergency planning and training. The HMEP grant program distributes fees, collected from shippers and carriers of hazardous materials, to emergency responders for hazmat training. For details, go to:

<http://hazmat.dot.gov/training/state/hmep/hmep.htm>



## CHAPTER 3

# Disposal of household hazardous waste

### Frequently Asked Questions Regarding Disposal

*Where is this waste generally taken after it is collected?*

Disposal or treatment options include: recycling, landfilling, treating, stabilizing, destructive incineration, and fuel incineration.

Here are just a few examples of how different categories of waste are managed:

- Used motor oil is typically sent to a plant to be re-refined and recycled.
- Latex paint in good condition is recycled back into latex paint.
- Latex paint in poor condition, for example solidified or moldy, is turned into fuel.
- Fluorescent tubes are sent to a lamp recycler.

*What household hazardous waste can be recycled?*

*Recyclable materials include:* used motor oil, batteries, antifreeze, propane cylinders, fluorescent lights, car batteries, lead acid gel batteries, nickel cadmium batteries, lithium batteries and mercury.

*Non-recyclable materials include:* acids, flammable liquids and solids, and organic peroxides. Disposal options for these include destructive incineration, fuel incineration, and landfilling.

*If the tribe I work for is not ready to start a full household hazardous waste collection program, can I still encourage my community to collect certain items?*

Yes. The following pages tell where the tribe and/or individuals can take items that are commonly collected throughout the Pacific Southwest, including used oil, electronic wastes such as cell phones and computers, and batteries. Also check with your county.

*Where can I take household hazardous waste?*

By simply typing in your zip code, the Recycling Hotline website helps you locate recycling centers for hazardous and non-hazardous items in your community.

<http://www.earth911.org/master.asp>

### Disposal for specific kinds of household hazardous waste

#### Used Oil

The following are state resources for disposing of used oil:

California:

<http://www.ciwmb.ca.gov/UsedOil/CrtCntrs.asp>

Nevada:

<http://ndep.nv.gov/bwm/hazard20.htm>

Arizona:

<http://www.azdeq.gov/environ/waste/solid/oil.html>

#### Batteries

Batteries contain heavy metals such as mercury, lead, cadmium, and nickel, which can contaminate the environment when batteries are improperly disposed of. When incinerated, certain hazardous metals may be released into the air or can concentrate in the ash produced by burning.

*Caution is needed when storing batteries. Batteries can corrode and become explosive. To prevent corrosion from occurring, tape the ends of the batteries with masking tape.*

#### Rechargeable Batteries

The Rechargeable Battery Recycling Corporation (RBRC), a nonprofit, targets four kinds of rechargeable batteries for recycling: nickel-cadmium (Ni-Cad), nickel metal hydride, lithium ion, and small-sealed lead. Its "Charge Up to Recycle!" program offers various recycling plans for communities, retailers, businesses, and public agencies. <http://www.epa.gov/epaoswer/non-hw/muncpl/battery.htm>

### Electronic Waste (e-waste)

Many electronics, such as computers, televisions and stereos, contain hazardous heavy metals. Work with your purchaser to see if a buy back program is available from the vendor.

- The California Integrated Waste Management Board developed the Electronic Product Management Directory, an online list of companies that handle e-waste:  
<http://www.ciwmb.ca.gov/Electronics/Collection/default.asp>

### Mercury-Containing Lamps

The following are organizations that recycle mercury-containing lamps:

- Association of Lamp and Mercury Recyclers:  
<http://www.almr.org/>
- LampRecyclers.org:  
<http://www.nema.org/lamprecycle/>

### Mercury Thermometers

Mercury, a highly toxic liquid metal, is often found in thermometers, blood pressure devices, lab chemicals, cleaners, and other products used in health care and the home. It is important to dispose of these properly to prevent the mercury from entering the environment and poisoning people, animals, and fish.

If you accept mercury thermometers as part of the tribe's household hazardous waste collection program, tell residents to follow this simple safety precaution: place the thermometer in a rigid plastic container and then seal the container in a plastic bag.

If you are interested in holding a mercury fever-thermometer exchange, contact Health Care Without Harm at <http://www.noharm.org/> or the Northeast Waste Management Officials' Association (NEWMOA) at <http://www.newmoa.org/> for more information.



The following websites provide information on how to find mercury recyclers:

- <http://www.ehso.com/mercury.php>
- <http://www.almr.org>

Be prepared to deal with other items containing mercury, such as thermostats, fluorescent light bulbs, or even elemental (pure liquid) mercury. It is wise to decide ahead of time whether you will accept these items.

If you choose to accept mercury be sure to have, and know how to use, a mercury spill kit.

### Needles (Sharps)

Needles are a safety hazard when placed directly into the garbage. If there is a clinic on the reservation, check with them about best management practices. The following websites list resources for how to safely dispose of needles:

- [http://www.dhs.ca.gov/ps/ddwem/environmental/med\\_waste/mailbacksharps/SharpsMailBackList.pdf](http://www.dhs.ca.gov/ps/ddwem/environmental/med_waste/mailbacksharps/SharpsMailBackList.pdf)
- <http://www.ciwmb.ca.gov/wpie/healthcare/PPCP.htm#WhereSharps>
- <http://www.safeneedledisposal.org/centers.html>



## CHAPTER 4

### Resources

#### U.S. EPA

*U.S. EPA Household Hazardous Waste:* <http://www.epa.gov/epaoswer/non-hw/muncpl/hhw-list.htm>

*U.S. EPA Household Hazardous Waste Publications:* <http://www.epa.gov/msw/hhwpubs.htm>

*U.S. EPA Pacific Southwest Household Hazardous Waste:*

<http://www.epa.gov/region09/waste/solid/house.html>

*For technical advice for tribes on starting a household hazardous waste collection, contact:*

*EPA Pacific Southwest Tribal Solid Waste Team, (415) 947-8708*

<http://www.epa.gov/region09/waste/solid/indianwaste.html>

*For program funding information for tribes, contact: EPA Pacific Southwest Tribal Programs Office,*

*(415) 947-8704, <http://www.epa.gov/region09/indian/>*

#### Arizona

*Arizona Department of Environmental Quality (ADEQ) Waste Program:*

<http://www.azdeq.gov/environ/waste/index.html>

*Arizona Hazardous Waste Management: Related Rules and Statutes:*

<http://www.azdeq.gov/environ/waste/hazwaste/rules.html>

#### California

*California Environmental Protection Agency (CalEPA) Department of Toxics Substances Control:*

<http://www.dtsc.ca.gov/>

*California Integrated Waste Management Board (CIWMB):* <http://www.ciwmb.ca.gov/>

*California Hazardous Waste and Universal Waste Statutes and Regulations:*

<http://www.ciwmb.ca.gov/HHW/StatRegs.htm>

*California Used Oil and Household Hazardous Waste Useful Links:*

<http://www.ciwmb.ca.gov/HHW/Links.htm>

*California Unified Program Agency (CUPA):* <http://www.calcupa.net/index.html>

#### Nevada

*Nevada Department of Environmental Quality (NDEP) Tribal Liaison Program:*

<http://ndep.nv.gov/tribe/tlp.htm>

*Nevada Recycling Program:* <http://nevadarecycles.gov/>

*NDEP Household Hazardous Waste Permanent Facility Guideline:* <http://ndep.nv.gov/bwm/docs/hhw.pdf>

#### Other Resources

*The North American Hazardous Materials Management Association (NAHMMA):* <http://www.nahmma.org>

*Earth 911 Household Hazardous Waste Recycling Sites:*

<http://www.earth911.org/master.asp?s=ls&a=HHW&cat=9&serviceid=>

<http://earth911.org/household-products/>

*National Household Hazardous Waste Forum:* <http://www.nhhwf.org.uk/>

*Federal Emergency Management Agency Household Hazardous Materials Independent Study Program:*

<http://www.training.fema.gov/emiweb/ls/is55.asp>

Notes:





Notes:



*Printed on 100% recycled, 50% post consumer waste paper*