

Tribal Guide For Managing Household Hazardous Wastes



Written by: Saint Regis Mohawk Tribe

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EXECUTIVE SUMMARY

The Saint Regis Mohawk Tribe (SRMT) has been executing their solid waste management program since 1995. In 2003, they held their first household hazardous waste (HHW) collection day, and then two more in 2008 and 2009, respectively. SRMT learned many things about what to do and what not to do during the preparation and execution of these collection days.

This manual is written for Tribes. The purpose is to share lessons learned by the SRMT so that other Tribes can use the information to hold their own HHW collection days and/or develop a program in their communities.

The reader will learn about the importance of collecting HHW, the dangers from improper disposal, and regulations applicable to the management of HHW.

This manual will also present models for program development and collection. The collection models can be used regardless of whether a Tribe has a program in place for the management of HHW. Other important considerations covered in this manual are design elements for collection, how to estimate HHW collection program costs, and implementing an auxiliary community outreach and education process for your program.

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SECTION 1- GLOSSARY & LIST OF ACRONYMS



1.1 GLOSSARY OF TERMS

Bioaccumulation – The process by which toxic substances accumulate in the tissues of living organisms.

Corrosive – Materials such as battery acids or strong bases, like sulfuric acid in car batteries.

Cradle to grave – Tracking system used to monitor hazardous wastes from point of production through disposal.

Household hazardous waste – Leftover household products containing ingredients that are corrosive, toxic, ignitable, or reactive.

Ignitable – Items that can be ignited by heat, spark, or flame.

Reactive – Materials that can explode or create toxic fumes and gases under heat and pressure or when mixed with water or other substances.

Toxic – Materials that can cause injury or even death when swallowed, absorbed, or inhaled.

Waste stream analysis – process by which one determines the types and amounts of household hazardous wastes in a community.

1.2 ACRONYMS

EPA – Environmental Protection Agency

HAZWOPER – Hazardous Waste Operations and Emergency Response



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HHW – Household Hazardous Waste

OSHA – Occupational Safety and Health Administration

RCRA – Resource Conservation and Recovery Act

SRMT – Saint Regis Mohawk Tribe

SMART – Specific, Measurable, Attainable, Realistic, Time



SECTION 2 – WHY COLLECT HOUSEHOLD HAZARDOUS WASTES (HHW)?



2.1 WHAT IS HHW?

The EPA defines HHW as “leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients.”¹

When mixed with normal trash, HHWs can become dangerous for the environment, as well as for collection workers. If a collection worker handles trash with certain HHW in it, he or she could be exposed to deadly fumes or acid-like substances.

Many of the common products we see for lawn care or car maintenance become household hazardous waste when we no longer have a use for them. This includes products such as paints and paint thinners, cleaners, oils, pesticides, solvents, and batteries.

The definition of HHW excludes wastes (even hazardous wastes) from businesses, government, or schools. It also does NOT include explosives and radioactive material.² Specialized contractors are usually needed to unpack, load, transport, and treat HHW. Other items outside the definition of HHW are medical waste, ammunition, and pharmaceuticals.

2.2 TYPES OF HHW



HHW can be organized according to the type of hazard it presents to people and the earth, or according to where these items are generally found within community members' homes.



The most common chemicals in HHW fall into four categories depending upon the nature of the hazard they present.³

Corrosive: Materials such as battery acids or strong bases, like sulfuric acid in car batteries that may corrode metal containers.

Toxic: Items such as antifreeze, weed killers, rat poison, mercury, or lead that can be toxic when swallowed, absorbed, or inhaled. They can cause injury or even death.

Ignitable: Items such as lighter fluids, paint, and turpentine that can be ignited by heat, spark, or flame.

Reactive: Fertilizers and lithium-sulfur batteries are examples of reactive HHW that can explode or create toxic fumes and gases under heat and pressure or when mixed with water.

Table 2.1 lists common household hazardous wastes by type of hazard.⁴

As you can see from the Table 2.1, many common household products have potentially hazardous ingredients. This vast list of products can also be organized according to the products' locations in our homes; see Table 2-2.

**Table 2.1. Common Household Hazardous Wastes According to their Hazard Type.**

Hazard Type			
Corrosive	Toxic	Ignitable	Reactive
Batteries: Vehicle, Household (alkaline, rechargeable)	Fluorescent tubes (spiral and compact bulbs)	Aerosol Cans	Batteries
Chemistry sets	Mercury (thermometers, button batteries, etc.)	Automotive Fluids (Anti-freeze, transmission fluid, etc.)	Drain Cleaner
Cleaners/Household chemicals	Cleaners/Household chemicals	Cleaners/Household chemicals	Oven Cleaner
Degreasers, Solvents	Fertilizers	Degreasers, Solvents	Bleach
Photo chemicals	Pesticides	Gasoline	
Paint thinners	Chemistry sets	Motor oil, Oil filters	
	Paint thinners	Cosmetics/Toiletries	
		Paint	

2.4 MANAGEMENT STRATEGIES

Using a management strategy that emphasizes reduction, reuse, and recycling (3R's) followed by proper disposal is best. Benefits of this approach are numerous, but probably the most important relates to sustainability.




A sustainable strategy is one which the environment can bear, is socially acceptable, and is economically feasible. Using the 3R's prior to resorting to disposal helps to preserve the environment, reduce costs, and give communities an opportunity to remain healthy.



Table 2-2. Household Products Found in Various Locations in our Homes.

<i>From the Home</i>	<i>From the Garden</i>	<i>From the Garage</i>	<i>From the Workbench</i>	<i>Miscellaneous</i>
<i>Bleach</i>	<i>Ant sprays and baits</i>	<i>Gasoline/oil mix</i>	<i>Adhesives and glues</i>	<i>Batteries</i>
<i>Drain cleaners</i>	<i>Bug sprays</i>	<i>Diesel fuel</i>	<i>Furniture strippers</i>	<i>Driveway Sealer</i>
<i>Oven cleaners</i>	<i>Cockroach sprays and bait</i>	<i>Motor oil</i>	<i>Oil or enamel based paints</i>	<i>Fluorescent light bulbs</i>
<i>Toilet cleaners</i>	<i>Flea repellent and shampoo</i>	<i>Fuel additives</i>	<i>Paint strippers or removers</i>	<i>Home heating oil</i>
<i>Tub, tile, shower cleaners</i>	<i>Insecticides</i>	<i>Brake and Transmission fluids</i>	<i>Paint thinners and turpentine</i>	<i>Kerosene</i>
<i>Pool chemicals</i>	<i>Herbicides</i>	<i>Antifreeze</i>	<i>Stains and finishes</i>	<i>Mercury thermostats or thermometers</i>
<i>Wood and metal cleaners/polishes</i>	<i>Fungicides/ wood preservatives</i>	<i>Air conditioning refrigerants</i>	<i>Photographic chemicals</i>	<i>Propane tanks</i>
<i>Electronics</i>	<i>Moth repellent</i>	<i>Starter fluids</i>	<i>Fixatives and other solvents</i>	<i>Compressed gas cylinders</i>
<i>Batteries</i>	<i>Rat and mouse poisons</i>	<i>Automotive batteries</i>		<i>Lighter fluid</i>

The goal of reduction is to eliminate the generation of HHW in the first place. Methods used to accomplish this include:

-  If there is a non-hazardous alternative available to accomplish the task at hand, use it;
-  Find safer ways to do things;
-  Become educated about products with hazardous components and learn about alternative products that are less hazardous; and



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- Buy only the quantity needed and use it all.

The SRMT's Household Hazardous Waste Information Sheet provided in Appendix B provides suggestions for using safe alternative products rather than using the more hazardous products that are commonly used to complete a household chore.

Reuse means using a product again, either for its original purpose or for another purpose. Reusing collected HHW helps to reduce operating costs. Contractors often charge by weight for HHW collection. Therefore, reducing the overall collection weight of certain items can save money. This can be done through Product Give-Away Programs. For example, paints can be blended and redistributed to charitable organizations or used by the tribal government.⁵ Another example is the reuse of motor oil as fuel to heat buildings. This practice is common in cold weather climates where used motor oil is burned in special furnaces designed to burn this type of oil.

Some facilities choose to have a Product Give-Away Program where items



collected at HHW collection events are given away to the public free of charge. The sealed containers are full to half-full of product. These products include common household cleaners, auto supplies, fertilizers, wood preservatives, stains and latex paint.⁶ This would encourage participation!



Recycling means taking a product and remanufacturing it into something else with a useful life. For example, collected motor oil, gas, and kerosene can be remanufactured into industrial-grade fuel oil. Some HHW contractors fuel their treatment plants with this type of oil.

2.5 DANGERS FROM IMPROPER DISPOSAL OF HHW

HHW is dangerous for two reasons. These products are composed of potent constituent chemicals and a very large number of them are potential sources of danger.

Improper disposal of these materials often results in harmful chemicals entering our freshwater and soil systems as well as our bodies.

So why is HHW such a problem? Sometimes, HHWs are kept in the home but are not safely stored, and this poses a risk. If these substances are poured down the drain, into the soil, or into the storm sewer,

“When residential trash is collected, it is compacted in the garbage truck to make room for more trash. When compacted, chemical containers can break and their contents mix with other chemicals. Depending on the chemicals involved, the resulting reaction may create toxic smoke, fumes, and fires and injure collection workers, pets, neighbors, family members, and the environment.” Source:

http://www.okc.gov/services/hh_waste/index.html

“Refuse haulers and disposal site workers can be injured by exploding aerosol cans, splashing chemicals, or poisonous fumes created by mixed chemicals. Firefighters can be injured by these chemicals when responding to a fire.” Source:

<http://www.co.san-joaquin.ca.us/solidwaste/What%20is%20HHW.htm>



immediate environmental damage may result. Most commonly, a consumer may put a container of HHW directly into their regular trash for curbside collection or drop off at a transfer station. Solid waste handlers can't see the HHW inside the trash bags and thus are at bodily risk.

There are several problems with mixing HHW with regular trash. First, HHW mixed with regular trash cannot be properly separated, sorted, and contained. This is not safe, because during handling, compacting, and transporting of solid waste, original containers break and the hazardous ingredients from HHW can seep out, entering the earth and damaging soil, water, humans, and animals. The effects are even worse when leftover household hazards are dumped directly into the drain, storm sewer, or soil.

Children and pets are in danger when HHW is stored improperly because there is a chance that they may directly consume HHW. They "can be seriously harmed by drinking, eating, touching, or breathing toxic chemicals"⁷ found in these household products.

Freshwater and soil systems are extremely vulnerable to chemical contamination through improper HHW disposal. When disposed of improperly, a contamination cycle is created.

Key Points to Remember:

Separate HHW from our regular trash.

Store HHW safely in our homes.

Deliver HHW to a collection site in your community for treatment and safe disposal.



Harmful chemicals deposited on soil have the potential to kill microbes and bacteria that are an essential part of the nutrient cycle. In high concentrations, this can lead to soil sterility and/or decreased plant health and diversity.

Our freshwater and soil systems are linked. Chemical contaminants in the soil or water are often washed into lakes and streams, completing the next step in the contamination cycle. Fish, and the aquatic insects they depend on for survival, are very sensitive to changes in the chemical composition of their environment. Without these species, the aquatic nutrient cycle cannot be completed, resulting in unhealthy freshwater bodies.

Untreated hazardous wastes that seep into the soil also affect groundwater, which is a source of drinking water. HHW dumped down household drains can destroy the “bacteria needed to break down sewer and septic tank wastes”⁸

The contamination cycle continues. Contaminated water sources are often used for irrigation and drinking. Crops irrigated with contaminated water will absorb a portion of the harmful chemicals present in the water, making the plants less healthy and potentially dangerous to eat. These same chemicals can infiltrate groundwater, making wells unsafe to drink from.

Some chemicals, like methyl mercury, are known as bioaccumulators. Bioaccumulation occurs when a substance is absorbed by the body more quickly than it is released. What makes these chemicals especially dangerous is that even if the environmental levels are relatively low, continued exposure can cause very high concentrations in the body. Bioaccumulators are stored in the tissues [flesh and organs] of plants and animals. With each step in the food chain, concentrations increase.



Because human beings are at the top of the food chain, we receive some of the highest concentrations of bioaccumulators from the plants and animals (especially fish) we consume. Enough of these chemicals in our bodies can cause chronic poisoning.

2.6 BENEFITS OF PROPER DISPOSAL

Section 2.5 emphasized the damaging effects of improper HHW disposal. On the other hand, many important benefits result when we educate our community members to separate HHW from regular trash and offer the chance to dispose of it safely. Safe disposal helps to:

1. PROTECT children and pets from direct contact.
2. PREVENT unexpected reactions and exposures that may harm solid waste handlers and firefighters.
3. MAINTAIN healthy soil bacteria to increase plant diversity and overall plant health.
4. CONSERVE freshwater systems and the health of fish and aquatic insects.
5. PROTECT food supplies including crops and forest resources (fish, deer, etc.).
6. PREVENT pollution of our groundwater.
7. PROTECT our bodies from dangerous levels of harmful, bioaccumulating poisons.



2.7 REGULATIONS FOR MANAGING HHW

Tribal sovereignty allows Tribes to develop their own regulations for the management of HHW on Tribal trust lands. These regulations must be developed in accordance with the applicable federal environmental regulations since Tribes are required to follow federal environmental regulations.

State environmental regulations aren't applicable on Tribal trust lands. However, Tribes need to consider state environmental regulations if they intend to transport their HHW to a disposal facility that is located within their state, because state regulations apply to any transporter and facility used for the management of HHW.

The Federal Resource Conservation and Recovery Act (RCRA) Subtitle C outlines regulations for the handling of hazardous waste. Under Subtitle C, there is a system in place which includes:

- “A tracking system that requires a “manifest” document to accompany transported hazardous waste from the point of generation to the point of final disposal;
- An identification and permitting system that enables EPA and the states to ensure the safety of treatment, storage, and disposal of hazardous waste. Certain generators, transporters, and treatment, storage, and disposal facilities (TSDFs) must obtain a permit to operate, which ensures that they meet the standards established under the RCRA program for proper waste management;



- A system of restrictions and controls on the placement of hazardous waste on or into the land.”⁹

This system tracks the waste from “cradle to grave.” This means that the hazardous waste is tracked from production until disposal to ensure that as little hazardous waste as possible is being deposited into the environment.

While HHW collection events are exempt from the regulations in RCRA Subtitle C, EPA recommends that they are still handled under the regulations and should be managed by a licensed facility. The lack of regulations regarding HHW, however, allows people to transport the waste in their own personal vehicles to a collection center, rather than requiring a specialized transport vehicle to do so.¹⁰

When a tribe hires a contractor to transport HHW, the tribe should make sure the contractor is fully aware of these regulations, as the transporter may not be exempt from Subtitle C regulations if it is transporting the HHW waste alongside industrial wastes. Furthermore, if a contractor is unlicensed and does not treat the waste in compliance with the regulations, it could be fined up to \$50,000 per day.



SECTION 3 – HHW PROGRAM DEVELOPMENT



3.1 DESIGNING A HHW MANAGEMENT PROGRAM

Although traditional and cultural beliefs of Indian Nations may differ from Nation to Nation, there seems to be a common thread among them all:

All aspects of life are interconnected and that any advancement of environmental programs must meet the needs of the present generation without compromising the lives of future generations.

Developing and implementing HHW management programs consistent with traditional and cultural beliefs helps to instill community ownership and leads to good community decisions with respect to HHW management.

A comprehensive program is the best option available to meet the needs of the present generation without compromising the lives of the future generations. Waste management strategies in a comprehensive program should include waste reduction, reuse of materials, and recycling. When these methods have been utilized completely, the HHW that remains has to be disposed in the safest manner possible.

3.1.1 Design Factors

In developing and implementing a comprehensive program, communities need to consider five design factors; see Figure 1. These factors are shown in a circle to demonstrate their interconnectedness and that each component plays a major role in the successful development and

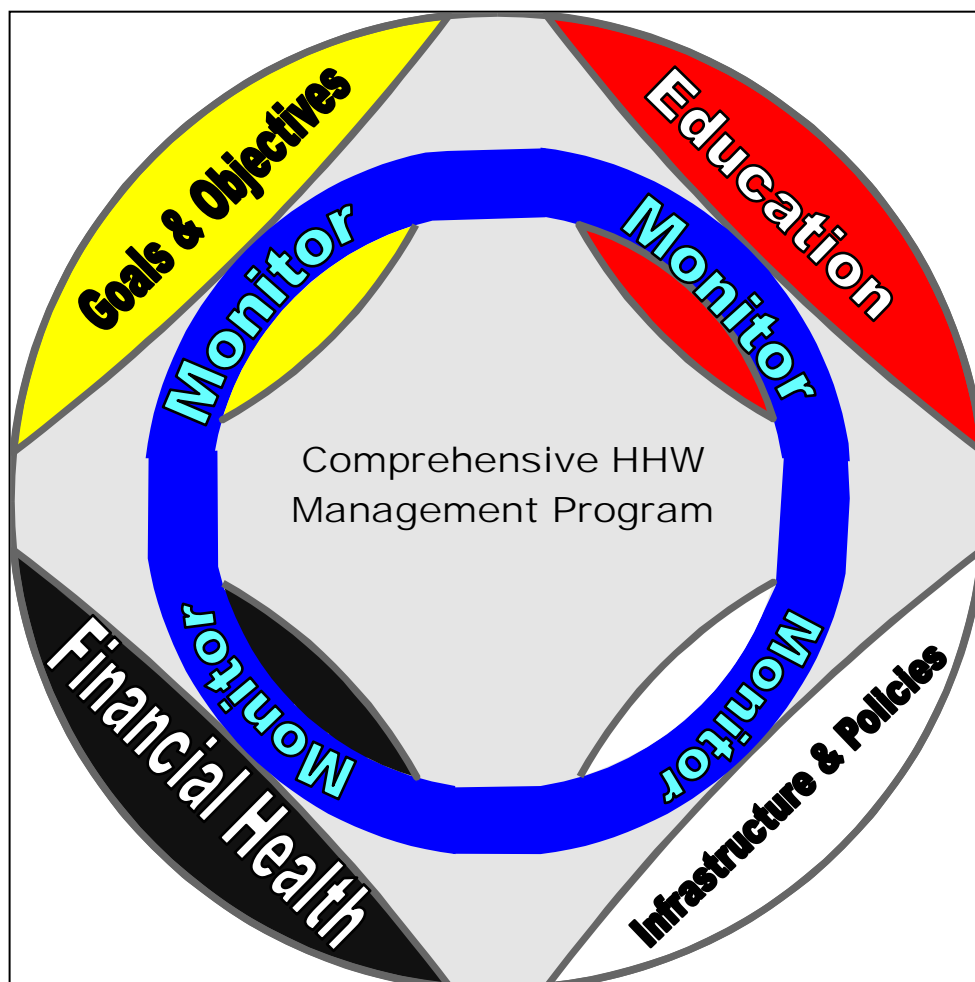


Figure 1. Factors to Consider in Developing & Implementing a Comprehensive HHW Management Strategy.

implementation of the overall program.

Goals & Objectives

Establishing goals and objectives is essential for the successful development and implementation of a program. Goals are what you want to achieve, the



final destination of where you want to go, moving from the current solid waste management strategies to the new and improved future strategies.

Objectives are the roadmap; how you are going to do it, and provide measurable outcomes to demonstrate that you have achieved your goals.

Objectives need to be based on the SMART principle:

S – Specific, objectives must be specific as to what they wish to accomplish;

M – Measurable, one must be able to measure the objective;

A – Attainable, objectives must be achievable;

R – Realistic, the objectives can be measured and achieved in a given amount of time;
and

T – time specific, objectives are completed in a given amount of time.

For the purpose of illustration, here is a goal with a corresponding objective:

Goal: Our cultural education program will help people to stop using open dumping as a method of HHW disposal.

Objective: Our cultural education program will assist 10 open dump users to increase their understanding of the negative impacts associated with open dumping and 5 of them will clean up their dumps and begin using proper disposal practices within a year.

The goal in this case is what you want to achieve – have people stop using open dumping for the disposal of HHW. The objective follows the SMART principle and explains how it will be done. The objective is specific and realistic, and can be achieved and measured within a specified time.



Infrastructure & Policies

Infrastructure and policies are the components that allow the program to achieve the goals and objectives. The goals and objectives will determine what infrastructure and policies are needed.

Infrastructure is the foundation or basic framework of the program. Buildings, equipment, and people are examples of infrastructure. Infrastructure may also consist of a newly created Tribal business enterprise that is needed to provide HHW management services to the community.

Policies guide the process of implementing the program. They may include operation and maintenance manuals, solid waste management plans, solid waste regulations, health & safety plans, business plans, truck routing plans, customer service policies, personnel policies, etc.

Education

The purpose of the education component is twofold.

First, moving from yesterday's HHW waste management strategies to tomorrow's requires community buy-in and support. Without community support, any change attempted will meet resistance and the success of the future management strategy will be questionable. Involving the community early in the development of new management strategies minimizes community resistance and enables a smooth transition from the old strategies to the new ones.



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The second purpose of the education component is to educate people in the community about the implementation of the new strategy and what will be required of them. Last, educating the community about solid waste reduction, reuse, and recycling practices is also important.

Incorporating traditional and cultural beliefs into the education component motivates the community to be more responsible for the management of their HHW and encourages participation in the program. This can best be illustrated by looking at an ongoing program that is achieving its goals and objectives.

SRMT's Cultural Educational Program – 4 R's

The goal of this component is to motivate people to respect themselves, the community, and Mother Earth so that they assume ownership for the overall well-being of their community. When this happens, the historically poor solid waste management practices of open dumping and burning will disappear and be replaced with waste reduction, reuse, and recycling, followed by proper disposal of garbage at the Tribe's transfer station.

Implementing a cultural educational program is the primary mechanism used by the Tribe to create this respect. This program is based on teachings from the Great Law of Peace. The Peacemaker brought this law to the Mohawks and taught them that all human beings possess the power of rational thinking and that measures can be taken to reach accord with people to create peace. The Great Law of Peace also teaches that no human being should abuse another.

The cultural educational program uses this teaching that the Mohawk people are rational thinkers and as such, have the ability to learn that their solid waste management disposal practices impact themselves, their children, their community and the next seven generations to come. They can also be taught that open dumping and open burning abuses the environment and their community, and the 7 generations to come.

History shows that Mohawks are great orators, persuasive, given to excellent expression of ideas, and use logic as a major tool for making decisions. Implementation of the cultural education program uses these characteristics to convey information with humor, and teaches decision-making skills to the Mohawk people.

The primary focus of the work is to use innovative approaches and educational materials to show that the condition and health of the Mohawk environment and community is directly impacted by how people choose to dispose of their solid wastes. The Tribe continues to work with children in the community to promote respect, solid waste reduction, reuse, and recycling. Children are the best target audience since they take learned information, educate their families and apply it in their homes, helping their families to be accountable for their behaviors.



Financial Health

Financial health is needed to successfully continue implementing the program once it is developed. Lack of funding is the primary roadblock for achieving financial health. Consequently, the program must incorporate innovative approaches to create revenue through the sale of solid waste management services or products, and obtain money from funding agencies. Tribal councils may also contribute money from the tribal general fund to support HHW collection days.

Indian Nations choosing to offer HHW collection services as part of their normal services (i.e. transfer station, landfills, or curbside collection) will most likely need to generate revenues to create a sustainable program. Those designing programs without revenue-generating components will find themselves relying upon outside sources of funding to sustain their programs, such as from Federal and State agencies, or from foundations.

Monitoring

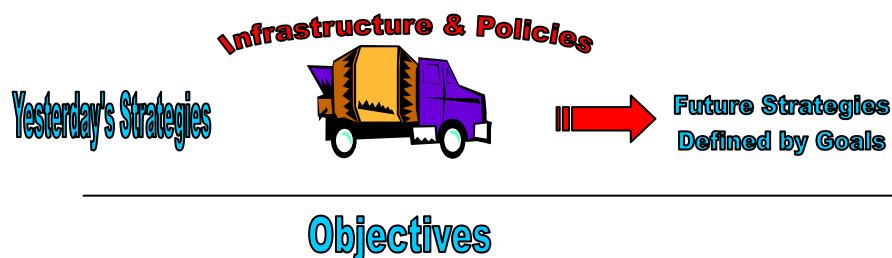
Since all the components (goals & objectives, infrastructure & policies, education, and financial health) of a comprehensive HHW management program are interconnected and work together to achieve environmental protection, economic prosperity, and community well-being, the success or failure of one component impacts the success or failure of all the other components. Consequently, the purpose of monitoring is to track the success or failure of each program component so that changes can be made to make the whole program more successful.



Quantitative (numerical) and qualitative (narrative, nonnumeric) measurements are used to track program components. Examples of each:

- Quantitative - # participants in a HHW collection day event, units of material collected; and cost of collection;
- Qualitative – comments received from the community about the program.





A conceptual way of developing and implementing a comprehensive HHW management program is shown in the picture below. A community establishes goals to define future strategies for the management of their HHW. Objectives serve as a roadmap to move them from the current situation into the future. Infrastructure and policies are the gears that create movement towards goals that have been set. Education, financial health and monitoring provide the fuel to keep the vehicle, or program, moving to achieve the goals.





3.2 HHW COLLECTION

The community will need to choose a collection model during the planning of the HHW program. There are a variety of collection models available, but these are the four most common types used by communities:¹¹

-  Hiring a contractor to run a one-time collection event. This is the most commonly used model.
-  Offering a permanent site for community drop-off of HHW. Then, storing the HHW until a contractor can pick it up.
-  Collaborating with nearby tribes, counties, or towns to hold local collection days at the same time, and sharing the costs of contractor pick-up.
-  Participating in a nearby tribe, county or town's household hazardous waste collection event.

The type of solid waste management program that a Tribe uses for the overall management of their solid wastes impacts which collection model makes the most sense to use. The next two sections address the impact of the existing solid waste management program upon the collection model best suited for the Tribe.



3.2.1 Our tribe does have a solid waste program

A HHW collection program can be integrated into an existing solid waste program. A program designed specifically for a Tribe's needs helps reduce the negative environmental effects of improperly disposed HHW. Consider these three options.

Option 1: A Tribe could hire a contractor to run a one-time collection event. This is the most common model. However, it is often expensive and does not build infrastructure. One-day collections can be beneficial to a Tribe because the contractor handles all of the HHW and Tribal staff may not need to be trained.¹²

Option 2: A Tribe could start its own HHW collection program, at a permanent site or transfer station. Tribal equipment or the contractor's equipment would be used to transport materials when you had collected enough to transport to a professional treatment facility. Startup costs may be high and well-trained staff members are often needed to reduce liability. This may reduce costs in the long run and give the Tribe more control over its program.¹³ Some HHW contractors are prepared to provide support to Tribes in the establishment of a permanent collection facility.¹⁴

Option 3: A Tribe could organize a multi-community HHW collection event with neighboring tribes, counties, and cities. A truck, designed to handle HHW, would visit locations where HHW is dropped off in each participating community. Advantages of this type of program include lower shared costs, program control, and building collaborative relationships with surrounding communities. Startup costs can be high and staff training is often required.¹⁵



3.2.2 Our tribe does NOT have a solid waste program

If a tribe does not have a solid waste program, it is still possible to set up an HHW collection program. In this situation, the tribal government would manage the connection between its community members (the producers of HHW) and an HHW contractor. Again, there are several options to consider:

- A Tribe could hire a contractor to run a one-time collection event as described in Section 3.2.1.
- A Tribe could participate in a nearby Tribal, county, or city collection event. This would require the Tribe to contact the entity holding the event to see if they would accept HHW from outside their jurisdiction. A decision about how the waste would be collected prior to the event would also have to be made: a designated storage station would be needed. Then the nearby collection site would send its truck or contractor to pick up HHW from your site. User fees would also have to be determined. This option is often less expensive than hiring a contractor, but limits may be placed on the amount of HHW collected, simply because of space limitations.¹⁶

3.3 HHW COLLECTION DESIGN ELEMENTS

Regardless of which collection model is used or whether a Tribe has an existing solid waste program, Tribes need to consider several design elements as they execute their programs. These elements are considered in separate sections, below.



3.3.1 Facility



Making arrangements for providing a temporary covered shelter for HHW collection day events is recommended. One NY collection day was interrupted because the contractor found himself standing in puddles of water in a lightning storm. No shelter was available, and all staff retreated to their cars

until the storm ended. Shelters could be an existing building, such as an existing transfer station, or a large tent set up in a parking lot.

It is possible to increase participation by placing the collection site close to residential areas but still well removed from residences, parks, water sources, wells, faults and wetlands.¹⁷ Weather will also affect the likelihood of resident participation.¹⁸ If bad weather seems likely, using an indoor facility is best.



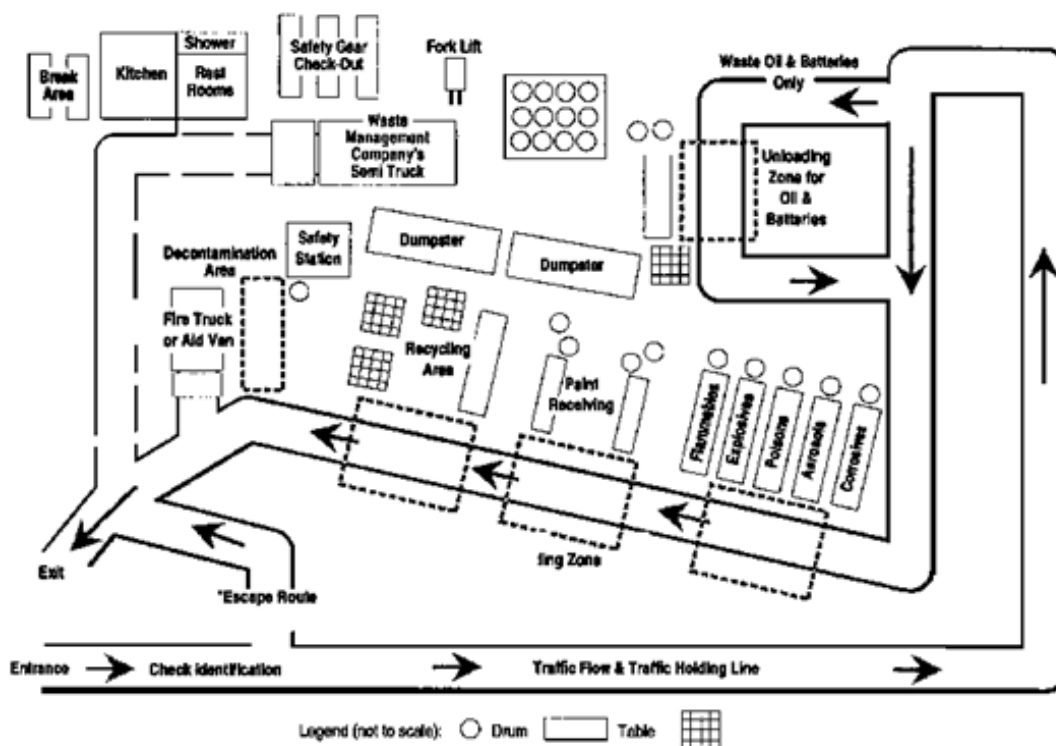
3.3.2 Traffic Flow

Traffic flow considerations to think about include: (1) one-way versus two-way traffic flow; (2) providing an unloading area for vehicles; (3) signage directing customers to the unloading area; and (4) preventing traffic congestion at the collection site.



Below is a model of a collection area from a permanent facility.¹⁹

This example shows a one-way traffic flow pattern where vehicles enter and go to the unloading areas. Collection containers are located at the unloading areas and are designated for different types of HHW. The

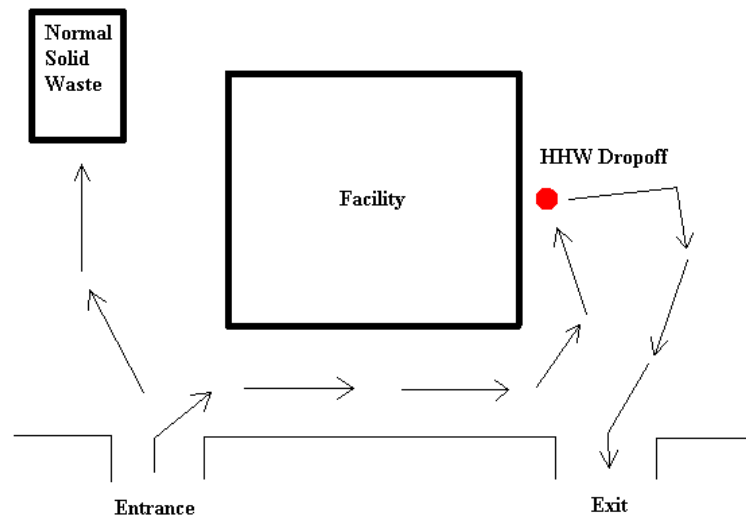


materials are unloaded and then the customer moves to the next unloading area. This unloading process continues until all materials are unloaded and then the customer exits at the exit point.

The SRMT used their transfer station building as a temporary collection facility during their 2008 & 2009 HHW collection days: see diagram on next page.



SRMT Transfer Station
(Outside)



The collection events were held during the building's normal operating hours. Transfer station employees directed the flow of traffic for the collection event to the west side of the building and kept the normal flow of traffic to the east side of the building for their usual customers. Tribal staff unloaded the HHW from the vehicles at the HHW drop-off location and customers then exited at the exit point.

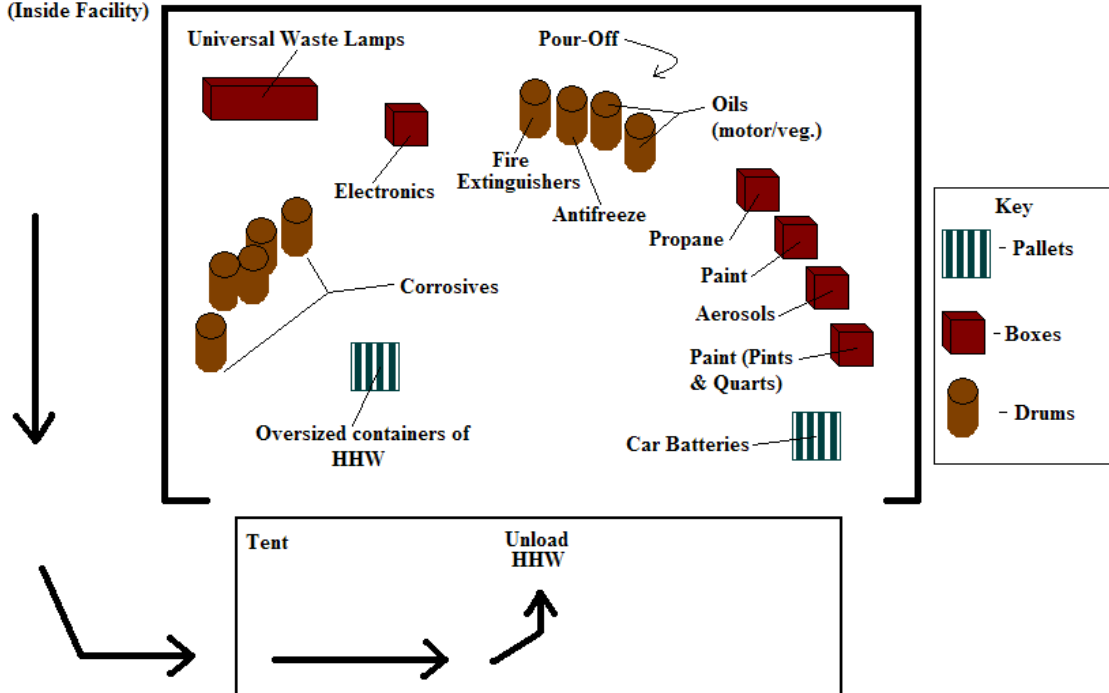
3.3.3 Safe Handling of HHW at the Facility

Safe handling of the HHW at the facility requires that an area be designated for the separation of materials. The SRMT set up a temporary area inside their transfer station building for their 2008 and 2009 collection days, as shown on the next page



SRMT Tribal Guide for Managing Household Hazardous Wastes

SRMT Transfer Station
(Inside Facility)



As described in Section 3.3.2, transfer station employees directed traffic flow to the unloading area, which was covered by a tent. Materials from the vehicles were transferred to a table located at the unloading area. Staff separated the materials on the table and placed them in the designated areas inside the building.



Another element to consider is packaging and loading the collected HHW into trucks for transporting to the





recycling/disposal facilities.

Containers need to be sealed, placed on pallets, and shrink wrapped to



prevent spillage during transportation. A fork lift or pallet jack will then move the pallets to the truck and up on to the truck if not equipped with a hydraulic lift.

The truck, fork lift, or pallet jack needs to have space to maneuver in order for the loading process to be performed in the safest manner possible. This is one thing that is often overlooked during the planning stages. There is nothing worse than trying to load a truck in tight

spaces and not being able to maneuver the equipment.

It is important to handle HHW in a way that prevents leakage, spillage, and accidental contamination. Taking steps to prevent accidents can help protect and preserve the environment and human health.²⁰

Appendix A provides a detailed description of SRMT's 2009 collection day activities.

3.3.4 Staffing

Staff may consist of Tribal employees, employees of a contractor, or a combination of both. In any case, all staff for either a permanent facility or a collection day needs to be trained to properly handle HHW. This reduces liability and the possibility of accidental spills.²¹



Do's & Don'ts for Proper Handling & Storage of HHW

Do:

Make sure no reactive HHW is exposed to heat, shock, or other materials

Wear proper safety equipment (such as: gloves, safety glasses, and aprons) when dealing with all types of HHW that are accepted

Make sure all HHW is packaged properly with lids and caps secure

Label products clearly

Keep HHW away from heat, spark, and flame.

Store volatile HHW in a well ventilated area in the facility

Beware of spontaneously flammable solvents (such as wood stain, paint stripper, and paint remover)

Recycle when possible

Don't:

Mix HHW unless instructed by label directions

Allow pregnant women to handle HHW

It is important to consider whether a tribe has the resources to staff a collection program and provide proper training. If working with a contractor, the contractor may wish that members of the staff have at least 40 hours of OSHA training.²²

It is advisable that the program manager have Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training.²³ This is useful during emergency situations and to help reduce liability.



A site safety meeting for all staff and volunteers needs to be held before the actual collection event. Items to discuss during this meeting include:²⁴

- Requirements of HHW Guidelines;
- Each person's role in the collection event;
- Location of safety equipment;
- Contingency plans;
- Waste packing guidelines & unacceptable materials;
- Chemical/Physical hazards associated with the wastes and collection activities;
- Personal protective equipment requirements; and
- Safety precautions/work practices.

3.3.5 Estimating Your HHW Collection Program Costs

Regardless of the collection model, ongoing costs include staffing, publicity,



contractor costs, and maintenance costs associated with a collection program. If you have a transfer station, you will pay for its maintenance and its adaptation for HHW collection.

Using historical data is one way to estimate costs. In 2008 and 2009, the SRMT held one day collection events. In both cases, they hired one contractor to be on site during the events and for transporting and disposal



of the material. They also used staff and volunteers to help the contractor with unloading the vehicles.

Table 3-1 compares the contractor costs for the two collection days. A total of 57 and 68 vehicles brought materials to SRMT during the collection events in 2008 and 2009, respectively.

Table 3-1 only shows the same material types that were collected for both years. In 2009, the SRMT also added the collection of the following materials:

Material	Quantity	Cost
Straight florescent lights	7,499 linear ft	\$1,874.75
Compact florescent lights	174	\$174.00
HID bulbs	96	\$96.00
Electronics	400 lbs	\$500.00
Car Batteries	29	\$29.00
LP Non PCB Ballast	50	\$75.00
Total		\$2,748.75

**Table 3-1. Material & Cost Comparisons for SRMT's 2008 & 2009 HHW Collection Day Events.**

Material	2008 Quantity	2009 Quantity	2008 Cost	2009 Cost
Waste Oil	330 gals	110 gals	\$930.00	\$310.00
Paint	600 gals	1,000 gals	\$2,850.00	\$4,750.00
Gas/Solvents	110 gals	220 gals	\$370.00	\$740.00
Anti-freeze	55 gals	55 gals	\$155.00	\$155.00
LP Aerosols	200 lbs	400 lbs	\$237.50	\$350.00
LP Propane	175 lbs	100 lbs	\$237.50	\$175.00
LP Oxidizer	200 lbs	200 lbs	\$200.00	\$200.00
LP Pesticide Liquid	40 lbs	150 lbs	\$240.00	\$240.00
LP Pesticide Solid	40 lbs	150 lbs	\$240.00	\$240.00
LP Corrosive Liq Acidic	40 lbs	300 lbs	\$200.00	\$200.00
LP Corrosive Liq Basic	100 lbs	250 lbs	\$200.00	\$200.00
LP Batteries	500 lbs	10 lbs	\$87.50	\$75.00
Transportation Fee			\$2,000.00	\$2,000.00
Mobilization Fee			\$1,500.00	\$1,500.00
Labor Fee			\$100.00	\$1,000.00
Total			\$9,547.50	\$12,135.00

SRMT's 2008 & 2009 contractor costs per vehicle were:

2008: \$167.50/vehicle (\$9,547.50/57)

2009: \$218.88/vehicle (\$14,883/68)



Estimating HHW Collection Day Costs

Need Statement: SRMT desires to hold a HHW collection day in 2010 similar to the one they held in 2009, and seeks funding for the collection event.

Historical Data Available:

2009 total vehicles that brought HHW to event= 68

2009 Contractor cost/vehicle = total contractor cost/total # of vehicles = \$218.88/vehicle

2009 Operation & Maintenance Cost for SRMT's transfer station = \$1,500/day or \$22.06/vehicle (\$1,500/68 vehicles)

2009 Pre collection day costs = \$2,000 or \$29.41/vehicle (\$2,000/68 vehicles)

Assumptions:

Collect same materials as in 2009

Estimated # of vehicles to participate in 2010 = 100

Estimating 2010 Collection Day Costs:

Contractor cost = \$21,888 (\$218.88 x 100)

SRMT transfer station O&M cost = \$2,206 (\$22.06 x 100)

Pre collection day cost = \$2,941 (\$29.41 x 100)

Total Estimated costs = \$21,888 + \$2,206 + \$2,941 = \$27,035.

SRMT could use these values in developing a budget for their next collection day event, as shown in the example above.

Tribes could use regional or national data to estimate their costs if they don't have their own historical data to use. For example, SRMT is located in



the northeast (NE) and other NE Tribes could use SRMT's data to estimate their own costs.

Reducing your costs is something that takes some creativity. You can reduce cost by using tribal staff to do the unloading and "off pouring." You can also reduce cost by creating partnerships with nearby tribes, counties, or towns to run a joint HHW collection program.²⁵ Education about ways to reduce HHW production and alternatives can also significantly reduce costs (these are mentioned in Section 4)

Depending on which model you choose startup costs can be funded through grants and tribal funds. One possible approach to get ongoing funding is to follow the path SRMT took. We approached the EPA for the initial funding to hold a collection day. We then gathered information from tribal members who came to drop off their HHW, asking them if they would like to see annual collection days. We then petitioned our Tribal Council for funding for future collection days. You demonstrate a community need to the tribal council. Arguments for funding include: long term benefit to the tribe and earth from keeping HHW out of soil and water; enhanced public awareness of good solid waste management practices as a result of HHW collection efforts; and promoting a positive image in the community by funding a collection program and setting an example.



SECTION 4 - COMMUNITY OUTREACH AND EDUCATION



4.1 EDUCATION APPROACH

In section 3.1, we discussed the role education has in making your program successful, and the importance of incorporating traditional and cultural beliefs into the educational process.

Knowing your target audience is another important factor. Who do you want to reach with your educational messages? Do you want to just educate the adults and if so, will you target a specific age or group? Or, maybe you want to educate the children since children are influential in getting their parents to change their behaviors. Maybe targeting a combination of adults and children would be best?

In defining your target audience, consider what you want to educate them about. For example, it probably is not appropriate to target children if your objective is to advertise procedures to follow for an upcoming collection day event. Adults would be the ones to bring materials to the collection day and therefore are the ones to be targeted in this case.

4.2 METHODS

4.2.1 General Information

Every community has different media available for communicating with its members. Methods that work well for one community may be inappropriate for another. Therefore, it is always a good idea to survey your



own community's media resources in order to select the most appropriate way to distribute your educational materials.

For some tribes, local press contacts can be valuable resources for getting the information to the community.

It may be useful to create a press kit that can educate members of the local media as well as other community leaders or participants in a speakers' bureau. A press kit can include:

- A list of local contacts and experts who can answer questions about HHW.
- Press releases about the HHW management program and the upcoming HHW collection event(s).
- Two or three short feature articles.
- Black and white photographs (with captions) of hazardous materials (in the home, on store shelves, at collection programs) that can either stand alone or be used with news and feature articles.
- Press-ready ads publicizing the collection day. Newspapers and radio and TV stations might run these ads free of charge on a space-available basis, or local firms might sponsor them.

Methods that have worked for the SRMT include:

- Radio station interviews and public service announcements;
- Tribal newsletter;
- Tribal websites; and
- Direct mailing to community members.

Other possible methods include:²⁶



Media. This depends upon the availability of radio, newspapers, and/or television within the community. Educational media might take the form of feature articles, public service announcements, a radio broadcast, or a local television broadcast.

Displays and Exhibits. Educational materials (such as poster boards, power point presentations, and handouts) can be brought to events or places in which people gather. Personnel can use the materials to present the topic of HHW and be there to answer questions.

Schools. Presentations at schools or additions to curriculum is an efficient means for educating the community, as kids then bring their new knowledge home.

Cultural Messages. Incorporating traditional and cultural beliefs into the educational message motivates the community. Cultural values such as stewardship of the Earth can become a motivator for environmental action as well as a source of pride for one's own culture and personal identity.

Poster Contest. Many young native children have fantastic artistic talents that could be used. Students can be educated about HHW and then challenged with a poster contest. Winning posters could be copied and distributed at an award ceremony. Educating the students by utilizing their heritage and cultural beliefs goes a long way toward educating the community about HHW, because young children learn what is good for their community and why recycling is essential for Mother Earth, and then tend to push their parents and grandparents to do what is right.

Point-of-purchase information. People are more receptive to information that comes from people they interact with every day, and so working cooperatively with store owners can be beneficial. Information could be



created by the Tribe and discussed with store owners so that they become educators. Information about safe HHW storage and disposal can be distributed wherever potentially hazardous household products are sold. Information should be included about safe usage, storage, and disposal.

Mailing and inserts. Mailing notices or brochures to every tribal resident provides an efficient way to educate some communities. Mailings can reach many people, and do not require much staff time. Mailings should be designed with simple words and effective graphics in order to reach residents with all levels of literacy. If many community members cannot read well, then other means of communication listed here may be more effective:

• Organizations with regular mailings may permit informational inserts:

- Utilities
- Banks
- Billers
- Advertisers
- Community groups

• Informational inserts on HHW could be included in official mailings from the tribe or local utilities, including:

- Water bills
- Garbage bills
- Tax bills
- Electric bills.











4.3 EDUCATION TIMETABLE

A HHW program cannot be successful if the local people do not know what HHWs are and why they should separate them from other trash.

Educational efforts can and should begin even before the details of the collection program are finalized. Educational efforts should be designed to reach all residents of the community. However, there are many specific organizations that can especially benefit from this early education: solid waste workers, hospitals, retail stores, and schools, to name a few.

At this stage, the public will most benefit from learning the basics:²⁷

-  Which products contain hazardous constituents
-  How HHW contributes to pollution
-  Safe storage and handling of HHW at home, prior to disposal in a collection program
-  The importance of source reduction
-  Choosing products that contain fewer or no hazardous constituents
-  Shopping 'smart' (e.g., buying only what is needed.)
-  Reusing and Recycling HHW (e.g., using up household products or giving away what cannot be used.)
-  How to use products in ways that minimize harm to the environment.








4.4 COLLECTION DAY EDUCATIONAL PROCESS

The EPA has guidelines for timing the education and publicity, in order to attract the greatest number of people to the collection event.²⁸

<i>Time Frame</i>	<i>Purpose</i>
<i>As soon as an HHW collection event is considered (At least 6 months before collection event)</i>	<i>Early education of the community about HHW.</i>
<i>As soon as a date for the collection event is chosen</i>	<i>Publicize the event & make people aware.</i>
<i>On a regular basis until the event</i>	<i>Continue publicity. Provide contact information and updates as necessary.</i>
<i>Final two weeks before collection day</i>	<i>Increase participation.</i>

After the time and place have been set for the collection event, the educational message needs to be expanded. In addition to continuing the educational messages described in section 4.3, you need to also provide information about the specifics of the collection event:

-  The importance of the event
-  When and where it will be held
-  What HHW materials will be accepted, and what will not
-  What should be done with excluded HHW?
-  Safe packing and transporting of HHW to collection event²⁹

Appendix B provides examples of educational materials that SRMT has used for their collection day events.



APPENDIX A – DETAIL DESCRIPTION OF SRMT'S 2009 COLLECTION DAY ACTIVITIES



This appendix provides a description of a typical collection event, from beginning to end. Specifically, it describes the SRMT 2009 collection day at its Tribal Transfer Station. The description highlights the activities, problems that arose, and recommendations for improvements.

Tribes may use this information to help them design a collect event to fit their needs and resources, as well as those of their contractor.

A.1 COLLECTION PROCESS

A.1.1 Five Stages for Traffic Flow

Entrance: Vehicles entered through an entrance gate. If they tried to enter through the wrong gate, they were waved back.

Direction: One worker was set up at the entrance and asked vehicles if they were dropping off HHW or just garbage/recycling.

Survey: If the vehicle was dropping off HHW, the worker directed them to pull up to the next checkpoint where one worker gave the driver a survey to complete and another worker checked the air-pressure in their tires.

Enter unloading area: When these two steps were completed, another traffic director informed the driver when they could pull up to





drop off their HHW. The driver backed up to a canopy outside the building. (The canopy protected workers from weather while they were unloading the HHW.) The driver could stay in the car while workers and volunteers unloaded the HHW and handed it off to the contractors for sorting and off-pouring.

Exit before the next car was sent forward.

A.1.2 Material Handling

Unloading: Some people got out of their cars and watched the workers unload the contents of their vehicles, but they were told not to handle the



HHW. Three workers and trained volunteers unloaded the HHW quickly so people wouldn't have to wait long. They also didn't want a line of vehicles to get backed up.

Tire pressure check: Air-pressure in tires was checked while drivers completed the questionnaire. The tire air-pressure checks were conducted

by the Air Quality Program. Vehicles that had their tires checked were given a free kit with a cup and some accessories inside (promotion for the program).

Sorting: The workers took the HHW from the vehicles and placed them on a table for the contractors to organize and sort. Contractors poured some liquids into large drums and then threw out the container. Some products were kept in their original containers, which were sorted directly into four



large boxes for paint (gallon sizes), propane, aerosols, and pints and quarts (small containers of paint and stain).

Spill control was immediately acted upon by contractors. They put down pads that absorb liquids whenever there was a spill (pink pads for acids and other liquids, gray pads for anything but acids).

Empty containers were immediately thrown into a nearby trash compacting truck.

A.1.3 Gathering Information From The Community



practices.

Vehicles pulling into the transfer station to drop off HHW were stopped prior to entering the drop-off area. A staff member spent about five minutes asking 11 questions about solid wastes and HHW





Questions

How many people live in your household? Number of adults and children?

What are the current waste removal practices that you are using? (self-haul, blue bags (how many?), commercial hauler, other?)

Do you know about the solid waste services offered by the Tribe? (If yes, please list.)

Do you recycle?

Do you use the Tribe's recycling depot?

Do you use any of the Tribe's solid waste services? (Transfer station, blue bags, recycling depot, special hauls?)

Do you burn or bury any solid wastes?

How much are you willing to pay for weekly curbside collection of garbage? (\$1-5 per week, \$6-10, \$11-15, \$16-20, or not willing to pay?)

Would you like to see the Tribe offer a household hazardous waste collection day every year?

How did you hear about the HHW collection day? (Radio, flyer in the mail, newspaper, or other?)

Do you have any comments or suggestions that you would like to share with us?

A.2 Observations

A.2.1 Traffic Flow Problems

Cones were set up to create two lanes of traffic, but the two lanes were only used when multiple cars pulled in at the same time.



There was a lack of signage for the entrance and exit gates. Some vehicles tried to pull in to the incorrect gate because there was no way of knowing which one to enter.

At first, there was poor communication among the traffic flow workers. At the beginning of the day, they did not ask if people were dropping off HHW or just garbage and recyclables, so some vehicles were told to go where they were not supposed to. The workers eventually communicated about the most effective way to direct the traffic. It also took some time to assign a worker to the final checkpoint.

When multiple vehicles pulled in at the same time, things had a tendency to get backed up and people ended up waiting longer than they should have. This may have been due to the lengthy survey and the tire pressure check.

A.2.2 Materials Collected

HHW Not Accepted

Radioactive materials

Biohazards (anything that comes in contact with your body, i.e. needles, feces, etc.)

Ammunition

Pharmaceuticals

Smoke detectors

Contractors will exclude different products from HHW collection. Confirm your list of acceptable

HHW Accepted

Acid

Fire extinguishers

Motor/vegetable oil (in liquid form)

Paint

Aerosols

Pints and quarts

Propane tanks

Electronics

Fluorescent light bulbs

Roofing tar

Car batteries and other batteries



products with the contractor so that you can accurately inform your community of what to bring.



The collected HHW was sorted in boxes and drums that were lined with plastic bags, as well as placed on pallets. These are the different types of HHW that were collected:

The majority of the HHW collected was

paint. The contractors mentioned that the second most popular HHW that is usually collected is pesticides, although the SRMT collection didn't have much.



A.2.3 Safety

At the beginning of the collection, the contractors conducted safety training with all of the workers. This included informing the workers about proper procedures and methods, as well as the three kinds of HHW that they do not accept (radioactive, biohazards, ammunition).

All workers wore brightly colored vests and work gloves at all times. People handling broken florescent lights were required to











wear face masks due to the possibility of mercury contamination.

Vehicles backed up to the unloading area outside the building. The driver could, if they chose, stay in the car while workers and volunteers unloaded the HHW and handed it off to the contractors for sorting and off-pouring. Workers prevented drivers from personally unloading the HHW.

A.2.4 Contractor's Comments

A brief interview with the SRMT contractor, MXI Environmental Services, occurred to collect their insights about the collection day. Here the highlights.

-  The Saint Regis Mohawk Tribe is the only tribe the contractors of MXI Environmental Services work with. Their work extends all over the east coast.
-  Collection days are typically scheduled between April and November.
-  All collections are similar.
-  MXI Environmental Services has its own tents for use when buildings are not available at the collection site.
-  This particular contractor recycles the motor and vegetable oils and reuses them to run their plant.
-  They do not collect old smoke detectors, but consumers can return them to Home Depot for recycling.



A.2.5 Suggested Improvements for Future Collections

The organization of the collection day could have been improved in a few areas. The workers involved with the traffic could have set up distinct checkpoints and communicated about each person's responsibility before vehicles started arriving. Another issue was the lack of planning for when boxes became full and needed to be replaced with empty ones. This resulted in coming up with solutions on the spot. A procedure could have already been set in place so there wasn't any backup.

The signage was not very clear, especially with regards to the entrance and exit. Clear signs could have helped the traffic run more smoothly and would have eliminated any confusion.

Tribal members should administer the survey and write down the answers. Drivers may be too impatient to complete it well on their own; some drivers expressed mild frustration at the delay. Tribal members know the drivers well, they know the cultural style of conversation, and they can have an informal conversation. At SRMT, the Environment Division outreach coordinator administered many of the surveys, and her connections with Tribal members at the collection day could help her future outreach work. Non-Tribal members who might work or volunteer should not ask the survey questions.

The five-minute survey could be shortened. Drivers got a free tire pressure check and car kit while they answered the survey questions. In other situations, some drivers might feel impatient with the time required for the survey.



The flyer that was distributed by the SRMT to announce the collection day did not include all of the different types of HHW that could be collected. For instance, roofing tar, car batteries, and electronic appliances were not on the brochure list; therefore, not everyone was aware they could bring those items. The flyer should emphasize that the program was FREE OF CHARGE or specify the charges. Some people thought that they had to pay.

People who come to collection day should be given educational brochures on HHW. Take advantage of the opportunity to educate them further.

Some of the volunteers brought their children to volunteer too. This should not occur. Children should not be around the chemicals or volunteering to help because it is not safe. This should be communicated to the volunteers during the pre-planning so they don't bring their children.



APPENDIX B – EXAMPLES OF HHW EDUCATIONAL MATERIALS FROM THE SRMT



SRMT Tribal Guide for Managing Household Hazardous Wastes

The SRMT uses direct mailing of brochures as a primary method for educating their community about events. The materials presented in this section were developed as front-to-back brochures. Consequently, each page represents a either the front or back of the brochure.

Household Hazardous Waste Information Sheet

Front Page

Household Hazardous Wastes

Safe Alternatives

All-purpose cleaner for kitchen and bathroom surfaces

Baking soda: Dissolve 4 tablespoons baking soda in 1 quart warm water for a cleaning solution or use baking soda sprinkled on a damp sponge.

Drain Cleaner

Prevention: Use a strainer to trap food particles and hair. Collect grease in cans rather than pouring it down the drain, and pour a kettle of boiling water down the drain weekly to melt fat that may be building up in the drain.



Baking Soda & Vinegar: Put 1/2 cup baking soda and then 1/2 cup white vinegar down your drain and cover the drain. Let set for a few minutes, then pour a kettle of boiling water down the drain to flush it.



Furniture Polish

Olive Oil & Lemon Juice: Mix 2 parts olive oil and 1 part lemon juice. Apply and polish with a soft cloth.

Pests & Rodents

Try baits or traps. Use ready-to-use formulas. Choose least toxic or non-toxic pest control solution.



"Trap Me, I'm Friendly"



Household Hazardous Wastes

Safe Alternatives

Lime & Mineral Deposit Remover

Vinegar: Soak rags or paper towels in vinegar and place them on hard lime deposits around faucets for about an hour before cleaning them.

Metal shower heads: To remove deposits, combine 1/2 cup white vinegar and 1 quart of water. Place shower head completely in mixture and soak for 15 minutes.

Plastic shower heads: Combine 1 pint white vinegar and 1 pint hot water. Place shower head in mixture and soak for about an hour. Rinse before using.



Metal Cleaner/Polish

Crème of Tartar: To remove stains and discoloration from aluminum cookware, fill cookware with hot water and add 2 tablespoons crème of tartar to each quart of water. Bring solution to a boil and simmer 10 minutes. Wash as usual and dry.

Worcestershire Sauce:

Dampened a soft cloth with Worcestershire sauce and use to polish unlacquered brass to a shine.



Spot Remover

Club Soda: Rinse or sponge blood and chocolate stains immediately with club soda. Repeat as necessary. Wash as usual.



Crème of tartar & Lemon Juice: Need to remove ink stains? Put crème of tartar on the stain and squeeze a few drops of lemon juice over it. Rub into the stain for a minute, brush off powder, and sponge with warm water or launder.



St. Regis Mohawk Tribe Household Hazardous Waste Information Sheet



We Are Keepers of the Earth,
Water and Air
Do Your Share and Learn More
About Household Hazardous
Wastes





Household Hazardous Waste Information Sheet

Back Page

What Are Household Hazardous Wastes?

You buy household products and once you no longer have any use for them they become household hazardous wastes. Household products are considered hazardous if they have one or more of the following properties:



Corrosive—May cause burns to the skin and corrode metal



Flammable—Ignites easily



Toxic—Poisonous



Reactive—React violently when exposed to heat, shock, or other chemicals

What types of hazardous products may I find in my home?

There are many types hazardous products, but they usually can be broken into different categories:

Automotive products: Gasoline, motor oil, antifreeze, windshield wiper fluid, car wax and cleaners, lead-acid batteries, brake fluid, transmission fluid



Home Improvement Products: Paint, varnish, stain, paint thinner, paint stripper, caulk, adhesives.

Pesticides: Insecticide and insect repellent, weed killer, rat and mouse poison, pet spray and dip, flea collars, mothballs, disinfectant, wood preservative.



Safe Management of Household Hazardous Wastes?

Household Cleaners: Furniture polish and wax, drain opener, oven cleaner, tub and tile cleaner, toilet bowl cleaner, spot remover, bleach, ammonia.



What can I do to minimize the amount of household hazardous wastes that comes from my home?

Use least hazardous products available—read labels to find least hazardous products.

Give leftover products to someone who can use them.

Recycle whenever possible.

Avoid aerosols—much of the product may end up in the air rather than doing your job.

Use safe alternatives that are listed on the back of this sheet.

How Do I Use Hazardous Products In A Safe Manner?



Read all labels and use according to directions. Do not mix products unless instructed by label directions. Mixing products can cause explosive or poisonous

chemical reactions. Pregnant women should avoid hazardous products since many products may affect unborn children.

During use, keep children away from hazardous products and keep in mind that you need to close the product and remove it from children's access if you get interrupted while you are using it.



Safe Management of Household Hazardous Wastes?

How Do I Store Hazardous Products or Hazardous Wastes?

Store products or wastes in locked cabinets away from children, animals, and food.

Make sure lids and caps are tightly sealed and childproof.



Make certain all products are clearly labeled. Leave products in their original containers with the contents clearly identified on the labels. Never put hazardous products in food or beverage containers.

Keep products away from sources of heat, spark, flame or ignition such as pilot lights, switches and motors.

Store products containing volatile chemicals, or those that warn of vapors or fumes in well-ventilated area.

Never store rags with flammable solvents (such as wood stain, paint stripper, and paint remover) because they can spontaneously start on fire. Follow the directions on the product label regarding disposal of solvent-covered rags. If there are no directions, place the rags in an airtight metal container and store the container outside your house away from other structures until it can be picked up with your regular trash. Another option is to allow the solvent to vaporize by hanging the rags outside, away from your home and sources of sparks.



Store LP (liquid propane) gas tanks outdoors and away from all sources of heat, flame or sparks.



SRMT Tribal Guide for Managing Household Hazardous Wastes

HHW Collection Day Flyer

Front Page

Follow These Instructions For Bringing Your Materials to the Tribe's Transfer Station

1. Bring materials in original containers or packaging or in secure, clearly labeled, leak-proof containers.
2. **Only materials listed on this flyer will be allowed.**
3. Make sure lids are tight on the containers.
4. If containers leak, pack contents and container in a larger package and use an absorbent material such as cat litter, to soak up leaks.
5. Group similar materials in the same area of your car to make unloading easier (ie. Group all oil-based paints together).
6. Boxes with dividers make good packaging.

**DON'T MIX OR POUR
DIFFERENT OR UNKNOWN
MATERIALS TOGETHER IN THE
SAME CONTAINER.**



POSTAL PATRON

St. Regis Mohawk Tribe
Environment Division
412 State Route 37
Akwesasne, NY 13615



Brought To You By the St.
Regis Mohawk Tribe's
Solid Waste Management
Program & Emergency
Response Team



HOUSEHOLD HAZARDOUS WASTE COLLECTION DAY

SATURDAY
Kentenhko:wa/November 15, 2008
9AM—3PM
Tribe's Transfer Station



Collection Day Flyer

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HAZARDOUS WASTE IN YOUR HOME?



Do you have household products containing hazardous substances around your home? Do you have that

Household Hazardous Waste Collection Day

Households and Small Businesses on Southern Side of Akwesasne Only.
Bring your unwanted household hazardous wastes to the St. Regis Mohawk Tribe's collection day for safe disposal.

Saturday, Kentenhko:wa/November 15, 2008
St. Regis Mohawk Tribe's Transfer Station
179 County Route 43 (Drum Street)
9:00AM—3:00PM

BRING:

FROM THE YARD	FROM THE GARAGE	FROM THE HOUSE	FROM THE WORKBENCH
Pesticides	Antifreeze	Drain Cleaners	Rust Preventatives
Insect Sprays	Brake Fluid	Oven Cleaners	Wood Preservatives
Rodent Killers	Wax Polish	Furniture Polish	Wood Strippers
Muriatic Acid	Engine Degreaser	Metal Polish	Wood Stains
Fertilizer	Motor Oil	Moth Balls	Paint Thinner
	Gasoline	Iodine	Lead Base Paint
	Kerosene	Art Supplies	Solvents
		Craft Supplies	Degreasers
		Photo Chemicals	Sealants
		Pool Chemicals	Latex Paint
		Floor Cleaners	Oil Based Paint
		Bleaches/Ammonia	

Need more
Information
Call 368-5937



SRMT Tribal Guide for Managing Household Hazardous Wastes

¹ “Household Hazardous Wastes” *EPA Wastes – Resource Conversation – Common Wastes & Materials*
<http://www.epa.gov/waste/conserve/materials/hhw.htm>

² [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments”
pg.4

³ [EPA 905-F-97-011](#) “HHW Reduction”

⁴ Information from Tables 2-1 & 2-2 taken from: Department of Health’s “Household Hazardous Waste Classifications” as well as <http://www.epa.gov/reg5rcra/wptdiv/p2pages/hhw.pdf>

⁵ [Household Hazardous Waste \(HHW\) Program-County of San Mateo](#)

⁶ [Household Hazardous Waste \(HHW\) Program-County of San Mateo](#)

⁷ [County of San Joaquin](#)

⁸ [County of San Joaquin](#)

⁹ http://www.epa.gov/osw/conserve/materials/pubs/manual/appdx_a.pdf

¹⁰ [EPA 530-R-92-026](#) “Household Hazardous Waste Collection Manual for One-Day Community Collection Programs”

¹¹ Entire list taken from [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments”

¹² [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments”

¹³ [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments”

¹⁴ [MXI Environmental Services FAQ](#)

¹⁵ [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments”

¹⁶ [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments”

¹⁷ [EPA 530-R-92-026](#) “Household Hazardous Waste Collection Manual for One-Day Community Collection Programs”

¹⁸ [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments”

¹⁹ [EPA 530-R-92-026](#) “Household Hazardous Waste Collection Manual for One-Day Community Collection Programs” Section 7.

²⁰ Zehr, Renee. “Tribal Guide for Managing Waste Lamps.” July 2006.

http://www.srmtenv.org/pdf_files/solidwaste/wastelampguide.pdf

²¹ Zehr, Renee. “Tribal Guide for Managing Waste Lamps.” July 2006

http://www.srmtenv.org/pdf_files/solidwaste/wastelampguide.pdf.

²² [MXI Environmental Services Guidelines for HHW Collection](#)

²³ [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments.” 2007.

²⁴ Entire list taken from: MXI Environmental services Guidelines for Household Hazardous Waste [Site Safety Meeting Topics](#), pg 4.

²⁵ [EPA-909-k-07-001](#) “Household Hazardous Waste Collection A Program Guide for Tribal Governments.” 2007.

²⁶ [EPA 530-R-92-026](#) “Household Hazardous Waste Collection Manual for One-Day Community Collection Programs”, Section 9.

²⁷ [EPA 530-R-92-026](#) “Household Hazardous Waste Collection Manual for One-Day Community Collection Programs”



SRMT Tribal Guide for Managing Household Hazardous Wastes

²⁸ [EPA 530-R-92-026](#) "Household Hazardous Waste Collection Manual for One-Day Community Collection Programs", Section 9.

²⁹ [EPA 530-R-92-026](#) "Household Hazardous Waste Collection Manual for One-Day Community Collection Programs", Section 9.