

HOUSEHOLD HAZARDOUS WASTE FACTS

Household hazardous waste (HHW) is defined as any solid waste classified as hazardous which is generated in a household by a consumer. Major categories of household hazardous materials are household cleaners; paint products; pesticides and fertilizers; automotive products; and arts and crafts-related solvents and thinners. Based on national data from collection programs, a typical breakdown of HHW is:

- 50% paints and paint products
- 20% used motor oil
- 20% solvents, pesticides and herbicides
- 10% batteries, unidentified materials and other miscellaneous items, such as old chemistry sets, photographic materials, and fiberglass epoxy

Goals of A Household Hazardous Collection

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

Linkage to Integrated Waste Management

Public education on the health and environmental hazards of HHW is a top priority in HHW management. Public education efforts should focus on making the public aware of the presence of hazardous materials in the home and the consequences of improper use and disposal; identifying substitutes that are less hazardous; encouraging better home management practices, such as buying only the amount of hazardous material that is needed at any one time; and identifying proper storage and disposal methods.

Source Reduction. Source reduction is the least expensive and most effective way to manage HHW. Source reduction methods include:

- Using substitute products with less potential hazardous components
- Buying small quantities
- Using products up before purchasing new products
- Checking for products that can be disposed of at home

Reuse and Recycling. Many HHW products may be reused by other individuals or organizations or are recycled. If possible find an outlet for the unused HHW. Donate the unwanted, leftover HHW to a friend, neighbor, or community group.

Most commonly recycled products are lead-acid batteries, paint, used oil, and antifreeze. (BOPA)

Financing Household Hazardous Waste Collection

HHW collection programs may be sponsored either by local government, public interest groups or private firms. Financial support may be obtained from a variety of sources that can include:

- Local or regional chemical manufacturers
- Corporations with local branches
- Civic groups
- Grants

H-GAC/TCEQ Grants. H-GAC promotes the education and provides funding for projects that provide a means for the collection, recycling or reuse and/or transportation of household hazardous waste. H-GAC has awarded grants for HHW collections in the past. For more information, contact Cheryl Mergo at 713.993.4520 or cheryl.mergo@h-gac.com.

- Funds from local governments
- Placing a use fee or product tax on hazardous products
- Additional utility bill fees

Local Environmental Protection Fee. A home-rule municipality may enact an ordinance that imposes a local environmental protection fee for disposal services to offer disposal or environmental programs or services to persons within its jurisdiction. This fee could apply to HHW programs.

Costs

Public participation in collection programs usually ranges from 1% to 5%, which may make the cost per participant extremely high. The cost of a "collection day" program can range from \$30 to \$300 per participant. A program with high participation may cost \$2 per pound of HHW collected, while a program with low participation may cost over \$9 per pound.

When evaluating the cost of a collection program, it is important to address intangible costs such as increased public awareness that will be raised during the publicity surrounding the collection event. Long-term disposal cost savings and avoided environmental damages need to be included in the cost analysis as well.

In 2000, the average cost per participant at a one day collection event in Texas was \$121.06. The average cost of a collection was \$20,416, with an average participation of 468 per collection. The cost is for the services of a hazardous waste disposal firm, conducting the collection event, packaging, manifesting, transporting and disposing of the waste properly. Statistics found at: <http://www.tnrcc.state.tx.us/exec/oppr/hhw/stats.html>

Collection Methods

There are several possible methods for HHW collection:

- One day collection events
- Permanent Collection Sites
- Mobile collection units

- Curbside collection

One-Day Collection Events - One day collection events are the most common approach. The planning and operation of a one-day collection event involves the setting of a date for collection, advertising the service to the public, and then conducting the program. The number of sites and length of program can vary. One-day events are typically held once per year. The one site/one time period approach is most applicable to small communities and requires less capital investment.

Another collection variation involves having multiple sites either simultaneously or in sequence. Two or more collection sites may be operated on the same day, followed by sites opening in different locations. Multiple sites are advantageous in large cities and may encourage participation. However, multiple sites are expensive, especially if operated simultaneously, because multiple, trained crews must be employed.

Permanent Collection Sites - Permanent collection sites increase the participation of a collection program by increasing convenience. Permanent collection sites are typically open a few days per week and generally have high operation costs.

Mobile Collection Units - Mobile collection units can provide ongoing, year-round collection of HHW. Mobile units operate on a fixed, predictable schedule. It is estimated that mobile units are more cost effective and cost efficient than one day collection sites. Generally, mobile units need 5,000 square feet in which to operate.

Curbside Collection - Curbside collection of HHW may also be utilized. Curbside collection programs are generally targeted to specific items, such as used oil, antifreeze, and batteries. This type of collection is typically operated in conjunction with curbside recycling programs. While participation levels are high, curbside collection is costly and requires specially trained personnel to collect, pack, and transport the collected materials. Also, specially designed trucks are required.

Steps to Host a HHW Collection Event

1. Advance Planning. It is **mandatory** that contact be made with the TCEQ's HHW Management Program at 512.239.4747.
2. Selection of a Date and Location(s)
3. Public Education and Publicity
4. Funding
5. Hiring a Licensed Hazardous Waste Management Firm

For HHW programs in your area, visit: www.cleanup.org

Information Needed Prior to Event Planning

Please contact Ms. Ingrid Dierlam-McDonald, Texas Commission on Environmental Quality, at 512.239.4747 and/or visit the TCEQ webpage.

[TCEQ HHW Web Page](#)

Contact:

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