

Solid Waste Management

LOB #356:

HOUSEHOLD HAZARDOUS WASTE

Purpose

SWMP provides services to residents to properly manage hazardous wastes generated within households. Services are available to residents at both of its solid waste management facilities, specifically the I-66 Transfer Station and the I-95 Landfill Complex.

The Household Hazardous Waste (HHW) Management program helps to prevent pollution by:

- Providing a convenient way for residents to deliver HHW to either of the County's solid waste disposal facilities for proper management; and
- Providing daily service at no charge to residents, to prevent curbside disposal, so that it is not sent for disposal in the County's waste-to-energy facility.

This service is available only to residents that generate HHW in the County. It is not available to businesses that generate hazardous waste, since businesses are regulated under different federal regulations that control the disposal of hazardous waste. The County's HHW program screens deliveries of hazardous waste to ensure that hazardous waste delivered comes from residents and not businesses in the County.

Description

SWMP provides HHW management services daily at each of its two solid waste management facilities: the I-66 Transfer Station in Fairfax and the I-95 Landfill Complex in Lorton. The Fairfax County SWMP HHW program is the longest-running HHW program in the northern Virginia region as it has been in operation for over two decades.

Residents may deliver a variety of materials that meet the definition of hazardous waste for proper disposal at either of the County's HHW program locations. The list of materials accepted for disposal is well advertised on the Fairfax County website and in printed brochures. Residents deliver materials to either facility and County staff accepts the materials, which are then managed according to numerous federal and state regulations. HHW received is segregated into like materials and then packaged for transport to permitted HHW management facilities according to both the U.S. Environmental Protection Agency (EPA) and U.S. Department of Transportation regulations.

The County has contracts with qualified HHW management facilities that transport HHW packaged by Fairfax County staff to the permitted facilities for proper management and ultimate disposal. This service is paid for through the user fees collected from the disposal of municipal solid waste (MSW) at the County's two solid waste disposal facilities. This is how the service is provided at no charge to the residential users. This LOB is performed with 5/5.0 FTE positions.

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The HHW program has expanded service over the years to collect new materials that become regulated as hazardous wastes and other materials that are not defined as hazardous wastes but must be properly managed.

New Types of HHW include:

- Cathode ray tubes;
- Rechargeable batteries;
- Button batteries; and,
- Compact fluorescent lamps.

Other Hard-to-Manage Wastes include:

- Used motor oil;
- Used antifreeze;
- Used cooking oil; and,
- Latex paint.

Benefits

The County has taken responsibility for the management of solid wastes generated within its borders which includes providing a program for the proper management of hazardous waste generated by residents of Fairfax County. The benefits are as follows:

- Numerous tons of waste have been prevented from being introduced into the County's waste-to-energy (WTE) facility. This is a significant pollution prevention program for County residents as any emissions from the WTE that could be attributed to the disposal of HHW are prevented from being emitted into the environment.
- Residents rely on the HHW program to provide for the proper disposal of hazardous waste, which is open daily at two disposal locations and one of the most-requested programs by County residents. Only Montgomery County, Maryland operates one HHW service location daily in the surrounding jurisdictions.

<i>Jurisdiction</i>	<i>HHW Service Level</i>
City of Alexandria	Twice per week at one location
Arlington County	Once per week at one location
City of Fairfax	Directs residents to Fairfax County program
Fairfax County	Seven days per week at two locations
City of Falls Church	Directs residents to Fairfax County program
Town of Herndon	Directs residents to Fairfax County program
Loudoun County	Eight events per year
Montgomery County, MD	Seven days per week at one location
Prince George's County, MD	Three days per week
Prince William County	Twice per week at one location and once per month at another location
Town of Vienna	Directs residents to Fairfax County program

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- The SWMP sponsors three Conditionally Exempt Small Quantity Generator (CESQG) as defined by USEPA regulations, events each year at the I-66 Transfer Station. These events are directed at small quantity generators of hazardous wastes, which because of the limited quantities of hazardous waste that they generate, are exempt from certain hazardous waste management regulations. These companies can use this program which helps them to properly dispose of hazardous waste at prices negotiated by the county. The only other jurisdiction in the area that provides this service is Loudoun County which does it twice per year.
- County staff continue to develop new programs to properly manage HHW and other hard-to-manage wastes. As an example of this effort, county staff identified a way to reuse usable latex paint delivered to the HHW facility. This has resulted in reducing costs for disposing of perfectly usable paint while providing the paint to Virginia residents that can benefit from purchasing paint at significantly-reduced prices or at no charge at all.
- The Fairfax County SWMP has been able to provide this service at no charge to residents through prudent management of revenues received by the program for providing solid waste disposal services for MSW generated by residents and businesses in the County.

Mandates

Initially, the Fairfax County HHW program was not required by any federal or state regulation. The HHW program was instituted as a pollution prevention commitment to the Lorton community when the WTE was established in the late 1980s-1990s. However, Fairfax County is now required to have a HHW program as established in the countywide stormwater permit recently finalized between the Virginia Department of Environmental Quality and Fairfax County. This permit, known as the MS4 permit, was finalized in July of 2015 and requires the County to have an HHW program resulting in state permit requirements.

Trends and Challenges

Trends

- Prices for the proper management of HHW continues to increase. New revenue structures may be necessary to cover the cost of proper HHW management;
- New hazardous wastes continue to emerge requiring solid waste organizations to develop new programs to properly manage these materials resulting in additional costs; and
- Residents continue to demand HHW management services.

Challenges

- The physical structures that house the county's HHW facilities are aging and out of date. Accordingly, repair, renovation and modernization of these facilities will need to be addressed in FY 2018 and beyond.
- Identify additional funding mechanisms to offset increasing costs due to growing service demands and higher contract costs.

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Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
LOB #356: Household Hazardous Waste			
FUNDING			
<u>Expenditures:</u>			
Compensation	\$541,367	\$559,773	\$577,518
Operating Expenses	48,295	49,744	51,236
Capital Equipment	3,347	3,514	3,690
Total Expenditures	\$593,009	\$613,031	\$632,444
Total Revenue	\$8,384	\$6,885	\$600,000
POSITIONS			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	5 / 5	5 / 5	5 / 5
Total Positions	5 / 5	5 / 5	5 / 5

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Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
Pounds of HHW disposed	470,775	550,463	636,422	640,000	650,000
Cost per pound to dispose	\$1.37	\$1.59	\$1.61	\$1.61	\$1.62

Household Hazardous Waste – Pounds Disposed

This metric reflects an increase in the pounds of household hazardous wastes disposed through the SWMP HHW program. It correlates with the increased number of households that participate in the program reflecting a 35 percent increase from FY 2013 to FY 2015. This trend should continue as the SWMP has expanded the HHW program to seven days per week making the program more convenient to County residents. It should be noted that FY 2015 was the first full year in which the SWMP had the expanded program hours available to the public which resulted in the increase of pounds disposed and further supports County pollution reduction and prevention goals. In addition to the expanded service times, the SWMP has increased the types of household hazardous wastes that it accepts to include electronics and cooking oil recycling. Fairfax County is the only jurisdiction in Northern Virginia that offers daily household waste disposal services to its residents.



Household Hazardous Waste – Cost per Pound to Dispose

Since FY 2014, the cost per pound to dispose of household hazardous wastes has increased 1.3 percent with the acceptance of additional types of wastes to the program. Although the pounds disposed through the program had increased steadily, the overall cost per ton has leveled off. This is because the largest component cost of the program is employee compensation which comprised 92 percent of total program costs in FY 2015. The SWMP has managed this program's growth with existing staffing levels. As pounds disposed increases, the number of pounds processed per employee increases. The program is experiencing improved efficiency through monitoring costs to dispose of electronic waste as that program grows. Overall, this program is very efficient in its use of resources to minimize exposure to household hazardous wastes in Fairfax County.

