



# 2009 Annual Report

## City of Madison/Dane County Clean Sweep Program



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2009 Annual Report

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## Executive Summary

According to the U.S. Environmental Protection Agency (EPA), Americans generate 1.6 million tons of household hazardous waste (HHW) per year. The average home can contain as much as 100 pounds of HHW. Unfortunately, some of these products, or wastes resulting from the use of these products, may pose a risk to human health or safety, or cause some type of damage to the environment. Almost every home contains household products that are potentially hazardous, such as cleaning products, automotive products, paint and paint related materials, and lawn and garden chemicals. Improper disposal of HHW can result in damage to local landfills, wastewater treatment systems and soil, groundwater and surface water environments and has the potential to endanger the health and safety of all persons coming into contact with it.

Public Health Madison & Dane County operates the City of Madison/Dane County Clean Sweep program, which aims to mitigate the risks associated with improper disposal of hazardous materials by collecting unwanted or unused pesticides, chemicals and other household hazardous wastes for safe and legal disposal before they can cause problems. Currently, the program offers a seasonal (May-October), permanent household hazardous waste collection facility available to all Dane County residents and farms free of charge. Small businesses located in Dane County which qualify as Very Small Quantity Generators (VSQG's) of hazardous waste may also use the collection facility on a fee for service basis. This report summarizes the accomplishments of program staff during the 2009 season.

### Quick View of Clean Sweep Operations, 2008-2009

| Description  | 2008      | 2009      | % Change |
|--|-----------|-----------|----------|
| Grand Total of Waste Received (lbs)                        | 944,575   | 820,965   | -13%     |
| Latex Paint Recycled (lbs)                                 | 500,634   | 345,558   | -31%     |
| Products Returned to Public through Product Exchange (lbs) | 87,778    | 106,150   | +21%     |
| Number of Items Recovered through Product Exchange         | 23,756    | 31,655    | +33%     |
| Number of HHW Customers                                    | 7,304     | 6,969     | -5%      |
| Number of Product Exchange Customers                       | 2,339     | 3,057     | +31%     |
| Number of VSQG/Business Customers                          | 74        | 71        | -4%      |
| Waste Disposal Costs                                       | \$258,791 | \$223,812 | -14%     |
| Labor/Administrative Costs                                 | \$168,785 | \$172,415 | +2%      |
| Grant Revenue  | \$32,602  | \$23,055  | -29%     |
| VSQG/Business Program Revenue                              | \$24,540  | \$24,275  | -1%      |

Dane County Public Works supports the Clean Sweep program with revenues collected in the form of tipping fees at the Dane County Landfill. These fees continue to be the primary source of funding for the City of Madison/Dane County Clean Sweep Program, paying for approximately 87% of the program's total cost in 2009. Overall, net program costs were approximately 9% lower in 2009 than 2008, due primarily to a significant drop in latex paint received. Mirroring decreased waste generation trends seen in the waste industry nationwide in 2009, HHW customer counts were lower in 2009, down approximately 5% from 2008. However, the number of people visiting the collection site Product Exchange facility increased dramatically in 2009, perhaps reflecting yet another side of the public's response to a down economy. Overall, the 2009 season data suggest that, after 17 years of Clean Sweep operations, this is still a very popular program, and the outlook is strong for continued growth.

Since the inception of permanent collection facility operations in 1993, the Clean Sweep program has captured 8.6 million pounds of household hazardous waste, and the program has served a critical role in pollution prevention and public health and safety enhancement.

## Introduction

Hazardous materials are chemical products or chemical wastes which are potentially harmful to human health and/or the environment. Many products found in homes are potentially hazardous substances. They can poison, corrode, explode, or ignite when handled improperly. According to the U.S. Environmental Protection Agency (U.S. EPA), as much as 100 pounds of HHW can accumulate in the home, often remaining there until residents move or do an extensive cleanup.

The term hazardous waste has a legal definition. A hazardous waste is a discarded substance whose chemical or biological nature makes it potentially dangerous to living things. In 1976, Congress passed the Resource Conservation and Recovery Act (RCRA), which directed the U.S. EPA to develop and implement a program to protect human health and the environment from improper hazardous waste management practices. RCRA named several different characteristics that would make a waste hazardous. These include wastes that are:

- **Ignitable** - can catch fire or burn.
- **Corrosive** - can eat away the containers that hold them.
- **Reactive** - explosive or causes a reaction when mixed with other materials.
- **Toxic** - poisonous, can cause birth defects, cancer or other health problems.

Potential public health and environmental problems resulting from inappropriate disposal of HHW are evident. While the waste generated by one household may contain only small quantities of hazardous wastes, the accumulation of small quantities multiplied by millions of households has raised legitimate concern for their proper disposal.

HHW programs can benefit communities in several important ways. They can reduce the risks to health and the environment resulting from improper storage and disposal of HHW. They can reduce communities' liability for the cleanup of contamination resulting from improper HHW disposal. Finally, HHW programs can increase community residents' awareness of the potential risks associated with HHW and promote a better understanding of waste issues in general.

Many communities have established programs to manage HHW. The number of HHW collection programs in the United States has grown dramatically over the last decade. Since 1980, when the first HHW collection was held, more than 3,000 collection programs have been documented in all 50 states.

In Wisconsin, HHW collection programs are typically called "Clean Sweep" programs. There are currently 13 permanent HHW collection facilities in the State of Wisconsin. Of the counties that don't have permanent collection facilities, most have Clean Sweep collection events at regular intervals. Nearly every county in Wisconsin has conducted at least one HHW collection event.

Public Health Madison & Dane County (PHMDC) is the agency which operates the Clean Sweep program for Dane County. PHMDC's basic mission is to join with partners in the community to promote wellness, prevent disease and help ensure a healthy environment. As such, operation of the Dane County/City of Madison Clean Sweep program is an activity that fits well within the agency's mantra. The long-term partnership between Dane County and the City of Madison to provide HHW collection services for Dane County residents has proven very beneficial, resulting in the capture, treatment and proper disposal of 8.6 million pounds of HHW over the past 17 years.

## Scope of Services

The City of Madison/Dane County Clean Sweep program has evolved to consist of four basic elements or service offerings. These services include:

### **Household Hazardous Waste (HHW) collection services**

Provides a permanent collection facility and satellite collection events offering free disposal of household hazardous waste to any household within Dane County.

### **Agricultural Waste collection services**

Helps farmers and agricultural businesses to dispose of unwanted, unused, damaged or banned hazardous chemicals, including pesticides.

### **Very Small Quantity Generator (VSQG) waste collection services**

Assists businesses who are very small quantity generators of hazardous waste by providing a convenient and cost-effective hazardous waste disposal service.

### **Product Exchange**

Facilitates reuse of paints, chemicals and other household products which are delivered to the collection facility in a useful condition.

## Objectives

Throughout its history, the primary objectives of the City of Madison/Dane County Household Hazardous Waste Collection Program have been to:

- Facilitate convenient and cost-effective HHW collection and disposal opportunities for all City and County residents in order to mitigate the health hazards and environmental consequences associated with improper disposal of hazardous wastes.
- Educate and enable residents to select, use, store and dispose of products in ways that serve to minimize the generation of hazardous waste.
- Encourage and facilitate the reuse and recycling of household hazardous waste.
- Provide cost effective waste disposal options for farmers, VSQG's and agricultural businesses.

By assuring safe waste management practices, encouraging pollution prevention, reuse and recycling, and assuring proper disposal, the program helps to prevent hazardous material from entering local landfills, thereby protecting public health and the environment.

### Did You Know?

Businesses which are small and large quantity generators of hazardous waste are not permitted to use the City of Madison/Dane County Clean Sweep Program. Only very small quantity generators (VSQG's) are permitted. It is the responsibility of the business owner to determine if they are a very small, small or large quantity generator. To qualify as a VSQG, a business must generate less than the following amounts of hazardous waste in any one calendar month:

- 220 lbs. of hazardous waste;
- 2.2 lbs. of acute hazardous waste;
- 220 lbs. of residue from cleaning up a spill of acute hazardous waste.



## Facility Description

The City of Madison/Dane County Clean Sweep Facility is located on the north end of the Dane County Highway Garage property at 2302 Fish Hatchery Road in Madison, Wisconsin. The site is classified as a HHW collection facility. The facility continued to operate seasonally in 2009, receiving materials only during the months of May through October. Materials collected at the site continue to be accumulated or stored less than one year from the time of receipt.

The facility, which is owned by Dane County, was designed and constructed according to Wisconsin Administrative Code NR 666 and NFPA 49 and is operated in accordance with them.



The Clean Sweep HHW collection facility consists of an office trailer; two pre-fabricated chemical storage buildings; a sumped bulking area (15'-6"L x 8'-6"W); one pre-fabricated chemical storage building for the product exchange; a 40-foot semi-trailer for dry storage of empty containers and spill supplies; and during the season, a 40-foot semi-trailer supplied by the hazardous waste contractor for storage of filled containers of waste awaiting shipment; a 20-cubic yard lined roll-off container for solid waste, and a covered 30 c.y. roll-off container for stacking latex paint cans for recycling. The two chemical storage buildings and sump area is



enclosed within a 4-1/2' poured concrete wall topped with an 8' chain link fence and is situated on a concrete pad sloped inward to contain spills. The fenced-in area is sheltered with a wood truss, steel-paneled roof canopy. A chain link fence completely encloses the canopied area. The complete facility occupies approximately 2,000 sq.ft. of the 9 acre Dane County Highway Garage property. The office trailer is equipped with telephone, fax, a high speed internet connection, electrical service, air conditioning and heat using propane gas. A 6-camera video system provides surveillance of the facility.



## Program Administration

The Clean Sweep program is operated by Public Health Madison & Dane County under contract with Dane County Public Works. Dane County Public Works provides the funding and collection facility for the program, while Public Health Madison & Dane County provide the administration and staffing for day-to-day operations. This long-term partnership has resulted in a very successful collaboration between Dane County and the City of Madison.

Program administrators and staff are as follows:

### Dane County Public Works:

- ❑ **Gerald J. Mandli**, Commissioner, Dane County Department of Public Works, Highways & Transportation
- ❑ **Mike DiMaggio**, Solid Waste Manager, Dane County Department of Public Works

### Public Health Madison & Dane County:

- ❑ **Dr. Thomas L. Schlenker**, Director, Public Health Madison & Dane County
- ❑ **Tommye Schneider**, Director of Environmental Health, Public Health Madison & Dane County
- ❑ **John Hausbeck**, Environmental Health Services Supervisor, Public Health Madison & Dane Co.

### Clean Sweep Program Staff:

- ❑ **David L. Radisewitz**, Hazardous Waste Coordinator, Public Health Madison & Dane County
- ❑ **John Carroll**, Hazardous Waste Technician, Public Health Madison & Dane County
- ❑ **Kerry Kronick**, Hazardous Waste Assistant, Public Health Madison & Dane County

## Standard Operating Procedures

The facility accepts household hazardous waste (HHW) from households, agricultural herbicides and pesticides from farmers, and hazardous materials from businesses classified as very small quantity generators (VSQG's). The facility accepts most forms of HHW except for ammunition, explosives, pharmaceuticals, tires, biological and infectious wastes, and radioactive material.

For the 2009 season, the facility was open to the public from 7:30 am to 2:00 pm on Tuesdays, Wednesdays, Fridays and Saturdays. Thursdays were reserved for business customers, by appointment only.

Activities associated with the collection, sorting, and management of hazardous materials are conducted within the confines of the fenced area of the facility, with the following exceptions:

- ✚ Four lined cubic-yard boxes on spill containment pallets are moved out side of the fence during collection hours for ease of sorting and packing. The boxes are moved behind the fence for storage when the facility is closed.
- ✚ Cans of latex paint are stacked in a 30-cubic yard roll-off container. The roll-off is covered with a tarp whenever it is raining or the facility is closed.
- ✚ Filled, labeled, and logged cubic yard boxes are moved onto the shipping trailer to await shipping.

On a typical day, most customers arrive at the site in their automobiles. After the customer has parked their vehicle and turned off their ignition, a Clean Sweep staff member greets them and collects the customer's materials on a cart for sorting.

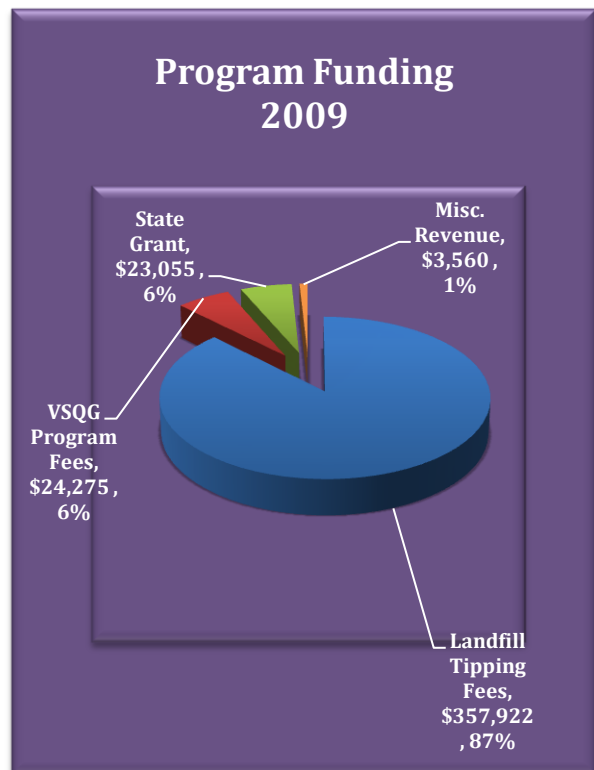
Facility staff sort the waste materials in order to eliminate the possibility of incompatible chemicals mixing, reacting, and/or causing injury to workers or the environment during processing or transport. First, reusable products are segregated from the waste stream and placed in the product exchange for customers to take, free of charge. Next, automotive and other rechargeable batteries, latex paint and anti-freeze are segregated and packaged separately for recycling. Finally, household hazardous waste that is not reusable or recyclable is sorted by compatible chemical properties and safely packaged into drums or cubic yard boxes. These containers are then transferred to the storage areas at the facility in preparation for transport to recycle, treatment, or disposal facilities.

At the City of Madison/Dane County HHW collection facility, sorted wastes are packaged for transport by one of two basic methods: bulking and labpacking. Bulking involves pouring off or transferring compatible waste materials from their original containers to a larger container, such as a 55 gallon drum. Labpacking involves placing original containers of waste with similar characteristics into larger containers, such as a cubic yard box or drum. Depending upon the labpack container's contents, it may or may not include a written inventory of the materials inside. Reactive wastes such as oxidizers, flammable solids and spontaneously combustible materials are examples of materials that are labpacked with inventories.

Once there are enough materials accumulated for a shipment, Veolia Environmental Services, the hazardous waste services vendor, is contacted to ship the packaged materials to the appropriate disposal/recycling site. The wastes are then disposed of based on the waste disposal hierarchy of beneficial reuse: recycling, treatment, incineration, and lastly, landfilling. Historically, greater than 90 percent of the waste materials received at the facility have been beneficially reused or recycled by utilizing this strategy.

## Funding Mechanism

The City of Madison/Dane County Household Hazardous Waste Program is funded entirely from non-levy sources, with the bulk of the



program funding being derived from tipping fee revenues collected at the Dane County Landfill. Some program costs are offset by user fee collections (e.g., VSQG's) or via reimbursements for costs incurred during special events (e.g. Satellite collections). Clean Sweep grants, administered by the Wisconsin Department of Agriculture, Trade and Consumer Protection (WDATCP) make up the balance of the funding for the program.

This funding strategy has permitted Dane County households to use the Clean Sweep program free of direct charges or user fees.



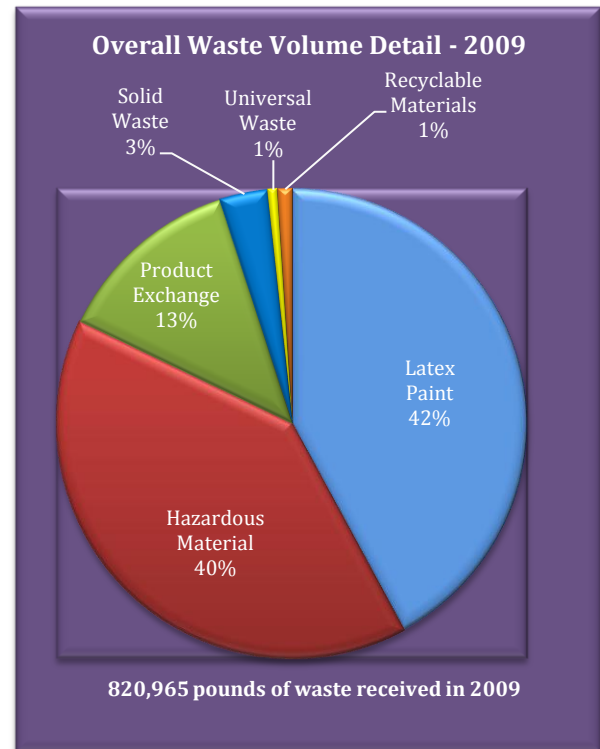
## 2009 Program Data

### Overall Waste Volumes

Historically, the 2009 Clean Sweep season ranks third highest in terms of total waste volumes received. As shown in the following table and charts, a grand total of 820,965 pounds of waste material was handled by facility staff in 2009. This amount is approximately 13% less than the overall volume seen in 2008. This is the first decrease in annual waste volumes seen in the past seven year period, and is due primarily to the substantial drop in latex paint volume seen in 2009.

#### Waste Volume Summary, 2006-2009

| Description                   | 2006           | 2007           | 2008           | 2009           |
|-------------------------------|----------------|----------------|----------------|----------------|
| Latex Paint Recycled          | 394,419        | 470,210        | 500,634        | 345,558        |
| Hazardous Material            | 290,252        | 364,479        | 317,073        | 328,791        |
| Product Exchange              | 76,102         | 61,013         | 87,778         | 106,150        |
| Acids/Bases to MMSD           | 11,524         | 8,200          | 0              | 0              |
| Solid Waste                   | 29,830         | 31,980         | 30,840         | 27,120         |
| Rechargeable & Auto Batteries | 0              | 6,148          | 8,250          | 5,350          |
| Thermostats to TRC            | N/A            | N/A            | 100            | 100            |
| Recyclable Materials          | N/A            | N/A            | N/A            | 7,896          |
| <b>TOTALS</b>                 | <b>802,127</b> | <b>942,030</b> | <b>944,675</b> | <b>820,965</b> |



### Latex Paint

Typically, latex paint accounts for about one half of all the waste received annually at the collection facility. This past season was no exception, as latex paint accounted for 42% of all the wastes received in 2009. The City of Madison/Dane County Clean Sweep program is one of the few HHW programs in the State of Wisconsin which accepts latex paint free of charge. Latex paint is not considered hazardous, due to the fact that it does not exhibit any of the characteristics of a hazardous waste. However, it is a liquid waste and, as such, it is banned from disposal in Wisconsin landfills in its liquid form. If dried completely, leftover latex paint can safely and legally be disposed of with regular household trash.

While not a hazardous waste, it is generally believed that the current policy of accepting of latex paint at the HHW facility is an important factor in boosting participation in the program. When people bring latex paint to the collection facility, they also bring their unwanted hazardous materials. Anecdotal

evidence suggests that accumulating latex paint volume in the home is a triggering factor in prompting people to seek out Clean Sweep services.

For the past several years, program staff have actively encouraged latex paint waste minimization and in-home management of leftover latex paint. The 31% reduction in latex paint volumes between 2008 and 2009 is seen as a positive manifestation of these efforts.

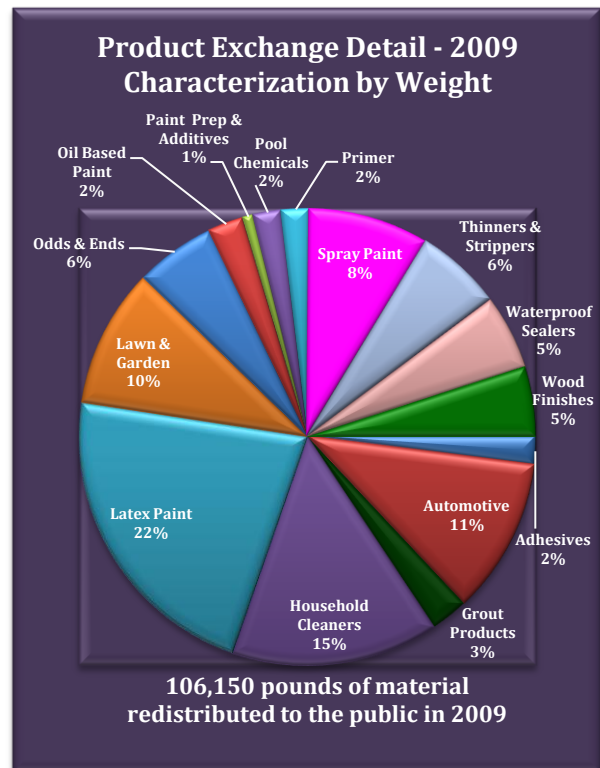
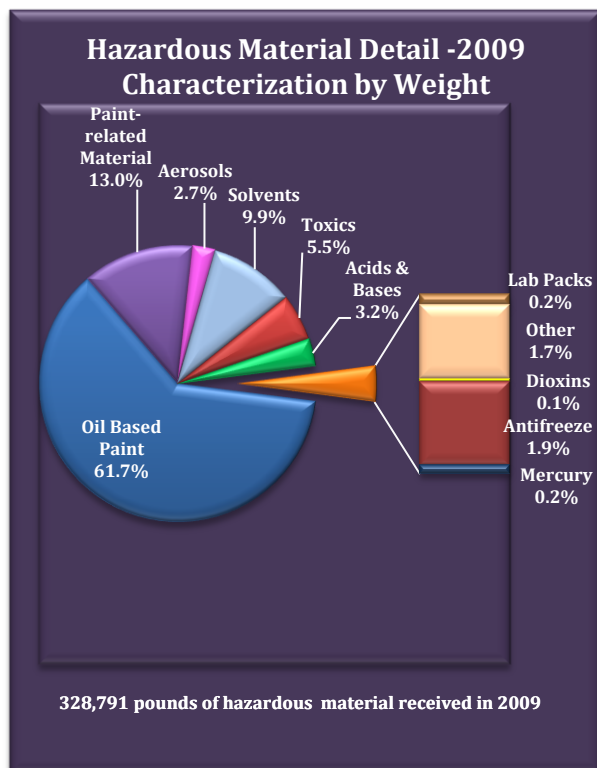
### Hazardous Material

Hazardous materials accounted for 40% of the total waste volume in 2009. This category includes chemicals and household hazardous waste delivered to the facility by farms and other residential customers, as well as hazardous waste delivered to the facility by businesses and municipalities under the VSQG program. The 328,791 pounds of hazardous waste delivered to the collection facility in 2009 was slightly higher than in 2008, but still consistent with the average volume seen over the past four years.

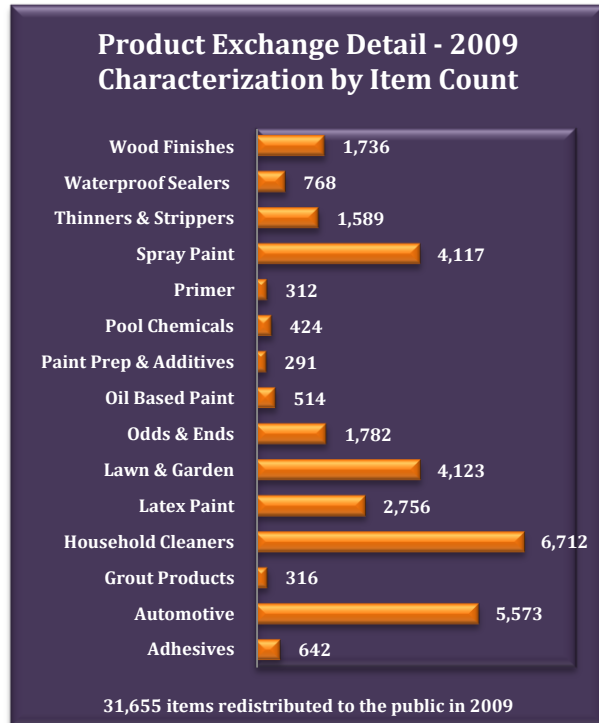
A breakdown of the hazardous material delivered to the collection facility in 2009 is presented in the preceding chart. Oil-based paint and paint related products continue to be the dominant type of hazardous material delivered to the facility, accounting for nearly 75% by weight of all the hazardous material received in 2009.

### Product Exchange

The volume of waste set aside for product exchange purposes increased dramatically in 2009. The product exchange is used by facility staff to re-distribute paint and other usable products to the public that were delivered to the facility by residential and business entities. A total of 31,655 items, having an estimated overall weight of 106,150 pounds, were turned back to the general public in 2009. A characterization of the waste materials received for product exchange in 2009 is presented in the following charts. The first chart shows the product exchange materials broken down into categories by weight and reveals that latex paint waste was the dominant product by weight in 2009.



In the next chart, product exchange materials are broken down into product category and item count. In terms of sheer numbers of products, household cleaners and automotive products were the most popular products in 2009.



## Acids & Bases

Many of the household cleaning products delivered to the Clean Sweep facility have corrosive characteristics. Some examples of common acids and bases include detergents, floor strippers, drain cleaners, bleach, battery acid, and naval jelly. Prior to 2008, most of the pourable acids and bases brought to the Clean Sweep facility were disposed of through aqueous treatment (neutralization, dilution, and biodegradation) at Madison Metropolitan Sewerage District (MMSD) wastewater treatment facilities. In 2008, this practice was discontinued because the volume of acids and bases was becoming increasingly burdensome for MMSD staff. To save costs, Clean Sweep facility staff endeavor to divert as many useable acids and bases as possible to the product exchange area. Unusable acids and bases are now shipped

out for aqueous treatment and disposal at Veolia Environmental Services facilities.

## Solid Waste

Clean Sweep operations inevitably generate or receive non-regulated or solid waste materials. At the collection facility, this waste is generated primarily as a result of solvent bulking operations, and is comprised mainly of empty solvent containers, gasoline cans, or other containers of dried or cured non-regulated solid waste or trash inadvertently delivered to the facility by customers. These wastes are placed into a 20 cubic yard, lined roll-off container, and transferred to the Dane County Landfill. Dane County Public Works contracts with a private vendor to provide the roll-off container and transportation services for this waste. During 2009, clean sweep operations yielded 27,120 pounds of solid waste, approximately 12% less than that which was generated in 2008.

## Universal Waste

Universal Waste is a category of waste materials not designated as "hazardous waste", but containing materials that need to be prevented from free release into the environment. It is defined in 40 CFR part 273, by the United States Environmental Protection Agency and the State of Wisconsin has corollary regulations regarding these materials.

At the City of Madison/Dane County Clean Sweep facility, Universal Waste includes:

- ✚ Batteries
- ✚ Mercury-containing devices (including many thermostats)
- ✚ Lamps containing mercury (e.g. fluorescent lamps, including compact fluorescent lamps)

Businesses and other generators of such waste are required to provide for their proper disposal.

Approximately 150 automotive batteries weighing an estimated 4,800 pounds were received in 2009. Northern Battery provided a storage bin and the recycling services for automotive batteries in 2009. Additionally, Clean Sweep staff received approximately 550 pounds of rechargeable Ni-CD, Ni-MH, Li-ion, and small sealed lead batteries of the type commonly found in cordless power tools, electronic devices and toys. These batteries were recycled through the Rechargeable Battery Recycling Corporation (RBRC), who provides a shipping container for battery accumulation, storage and recycling at no cost to the facility.

Most of the mercury containing devices, including compact fluorescent lamps, which are collected at the Clean Sweep facility are recycled through Veolia Environmental Services facilities. However, the 583 thermostats that were recovered in 2009 were recycled through the Thermostat Recycling Corporation (TRC) at no cost to the facility. TRC is a non-profit corporation founded and operated by thermostat manufacturing companies. TRC facilitates the nationwide collection and recycling of used wall mounted mercury switch thermostats through a collection network comprised of HVAC wholesale outlets, HVAC contractors and local household hazardous waste collection facilities.

#### Mercury Recovery Summary, 2006-2009

| Device Type        | 2006       | 2007       | 2008       | 2009         |
|--------------------|------------|------------|------------|--------------|
| Sphygmanometers    | 17         | 71         | 4          | 10           |
| Thermostats        | 201        | 372        | 321        | 583          |
| Fever Thermometers | 274        | 233        | 268        | 319          |
| Other Thermometers | 50         | 7          | 40         | 174          |
| Switches           | 221        | 65         | 19         | 277          |
| Arc Lamps          | 6          | 0          | 5          | 1            |
| Manometers         | 1          | 2          | 1          | 3            |
| Barometers         | 1          | 1          | 0          | 0            |
| Other              | 0          | 2          | 5          | 36           |
| <b>TOTALS</b>      | <b>771</b> | <b>753</b> | <b>663</b> | <b>1,403</b> |

## Recyclables



As part of an ongoing effort to minimize the amount of waste requiring disposal at the Dane County Landfill, facility staff arranged for the City of Madison to place several recycling carts at the facility in 2008 for the purpose of recycling the empty glass, plastic and steel containers arising from solvent and antifreeze bulking operations. Additional recycling carts were added in 2009, and staff successfully recycled nearly four tons of recyclable containers, paper and cardboard during the 2009 season.

## Customer Counts

As shown in the following table, overall traffic was up nearly 4% when compared to 2008 operations. Customer count data for the City of Madison/Dane County Clean Sweep facility in 2009 is presented in the following table and chart.

#### Customer Count Summary, 2006-2009

| Customer Category          | 2006          | 2007         | 2008         | 2009          |
|----------------------------|---------------|--------------|--------------|---------------|
| Household (HHW) Customers  | 7,272         | 6,073        | 7,304        | 6,966         |
| Product Exchange Customers | 3,029         | 2,055        | 2,339        | 3,057         |
| Agricultural Businesses    | 8             | 1            | 3            | 4             |
| Farmers                    | 12            | 7            | 14           | 8             |
| Municipalities             | 9             | 16           | 14           | 4             |
| VSQG's                     | 46            | 55           | 43           | 55            |
| Columbia County            | 0             | 10           | 5            | 3             |
| Satellite Events           | 138           | 288          | 0            | 0             |
| <b>TOTALS</b>              | <b>10,514</b> | <b>8,505</b> | <b>9,722</b> | <b>10,097</b> |

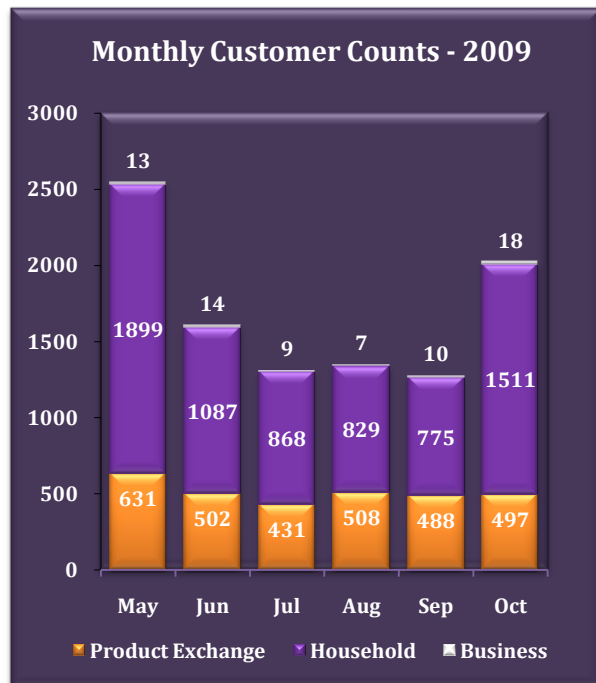
In 2009, 3,057 customers visited the product exchange at the Dane County/City of Madison facility, taking home an average of nearly 35 pounds of useable product per customer visit, down slightly from an average of approximately 38 pounds per customer visit in 2008.



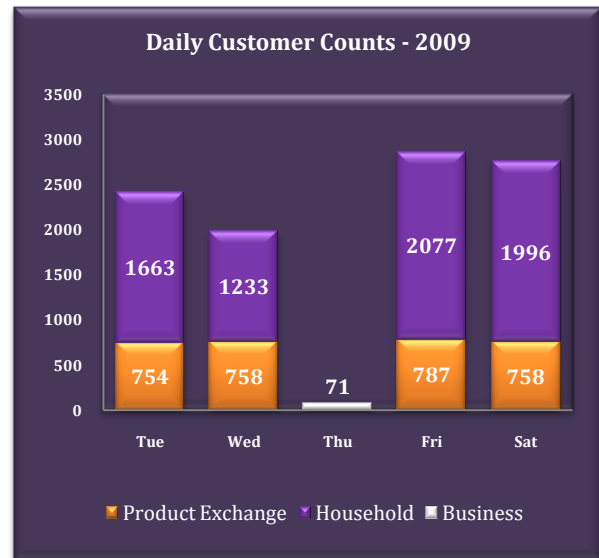
In 2009, 71 farmers, businesses or VSQG program participants delivered 32,721 pounds of waste to the facility. In general, agricultural participant totals continue to follow relatively stagnant trends observed in recent years. Even though the overall number of participants in the business program dropped slightly in 2009, the total volume of waste captured through the business waste program was up nearly 30% compared to 2008.

### Customer Distribution Patterns

Customer distribution patterns in 2009 essentially mirrored patterns observed in previous years, with the highest number of customers utilizing the facility during the first and last months of the season (May and October). The following chart illustrates the monthly customer counts for Household, Business, and Product Exchange in 2009.



The next chart shows that Fridays and Saturdays proved to be the busiest collection days in 2009, with each day showing nearly equal traffic numbers. An average of 66 household customers utilized the facility per day in 2009, over 105 days of operation. The product exchange averaged 29 customers per day in 2009 over 104 days of operation.



### Waste Shipments

For the past four seasons, Veolia Environmental Services has been the City of Madison/Dane County Clean Sweep program's hazardous waste contractor. Veolia Environmental Services performed seven hazardous waste shipment events from the collection facility in 2009. Additionally, Veolia transported eight 30-cubic yard roll-off containers of latex paint to Amazon Environmental, in Roseville, Minnesota for recycling in 2009. HHW shipments originating from the collection facility were routed to Veolia's HHW facility in Menomonee Falls, Wisconsin for further sorting and processing prior to treatment and/or disposal at other facilities. All shipments were properly manifested in accordance with applicable rules and regulations.

### Recycling/Treatment/Disposal Destinations

With the exception of latex paint shipped in roll-off containers directly to Amazon Environmental, Inc., all other waste materials transported by Veolia E.S. in 2009 were first shipped to Veolia Environmental Services Controlled Waste Division (VES-CWD) HHW Facility in Menomonee Falls, Wisconsin for

further processing and handling. This facility possesses a Part B Permit, issued in June of 1988, for RCRA drum and bulk storage of liquids and solids. Additionally, the facility offers drum processing, fuels bulking and labpack depack operations. This allows the materials to be separated and/or consolidated for eventual shipment to appropriate final treatment and disposal destinations. This included the following facilities in 2009:

- ✦ VES – Port Washington, WI: Lamp recycling and mercury retort facility
- ✦ VES – Port Arthur, Texas: RCRA/TSCA Incineration Facility
- ✦ VES – Phoenix, AZ: PCB Ballast Recycling
- ✦ VES – Sauget, IL: RCRA Incineration Facility
- ✦ Green America Recycling/Continental Cement Company - Hannibal, MO: Beneficial Reuse/Fuel Blending
- ✦ Dupont Secure Environmental Treatment – Deepwater, NJ: Wastewater Treatment Facility
- ✦ Giant Resource Recovery, Inc. – Arvonnia, VA: Beneficial Reuse/Aerosols
- ✦ Amazon Environmental, Inc. – Roseville, MN: Latex Paint Recycling
- ✦ Safety Clean – Madison, WI: Oil and Antifreeze Recycling
- ✦ Stablex – Quebec, Canada: Mercury Compound Treatment & Disposal
- ✦ Inmetco – Ellwood City, PA: Battery recycling
- ✦ Northern Battery – La Crosse, WI: Automotive battery recycling

### **Program Promotion**

In 2009, information pertaining to the Dane County/City of Madison Clean Sweep program was disseminated to the public through direct mail to select customer groups, press releases, publications and newsletters, television coverage, and brochures. In addition, the program maintained an information hotline and website devoted to the Clean Sweep program.



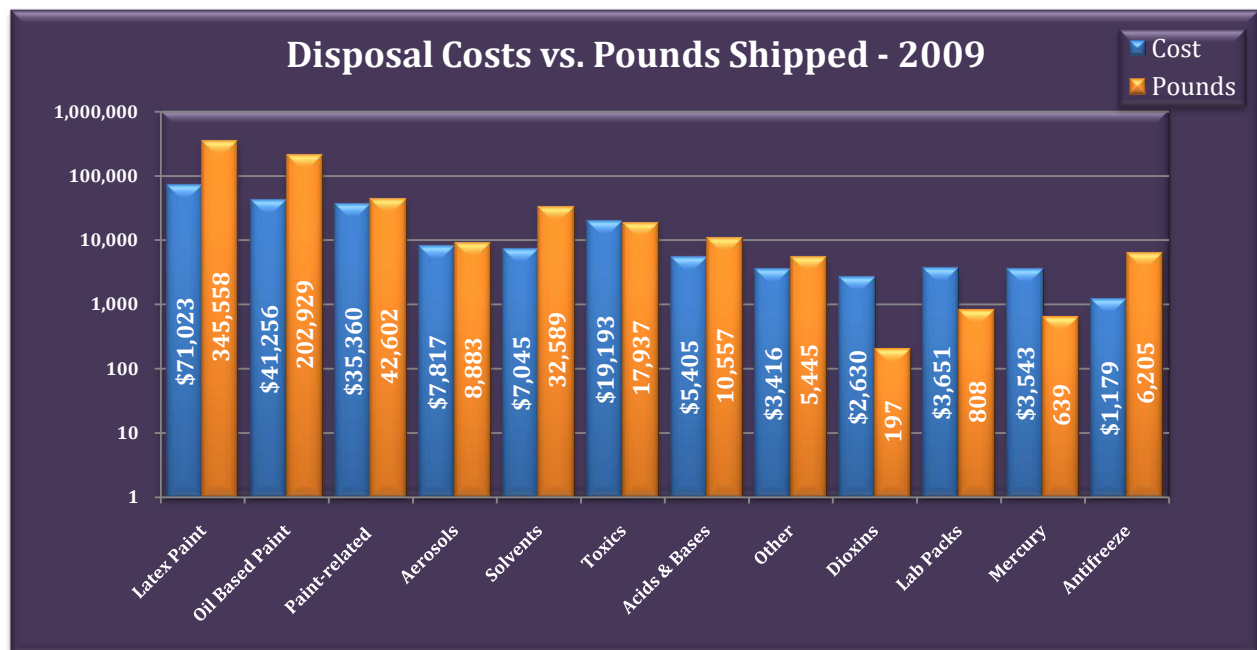
## Program Costs

The following table presents a comparison of Clean Sweep program costs for the past four seasons. Waste material disposal cost represents the largest expenditure category, consuming approximately 1/2 of total annual expenditures for the program. Overall, net program costs decreased approximately 9% between 2008 and 2009. Not reflected in the data in this table are the additional financial contributions made by Dane County in 2009 for expenditures such as utilities, capital improvements and repairs, and equipment.

A total of 674,349 pounds of waste was shipped through Veolia ES in 2009. The total cost of the Veolia ES contract in 2009 was \$223,812 (disposal costs + material & misc. costs), yielding an average cost per pound shipped of approximately \$0.33 per pound.

The following chart illustrates the disposal costs and poundage for each of the major waste categories handled in 2009.

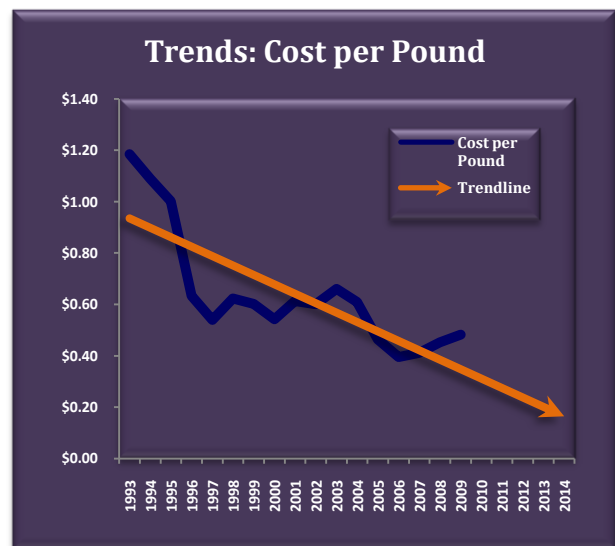
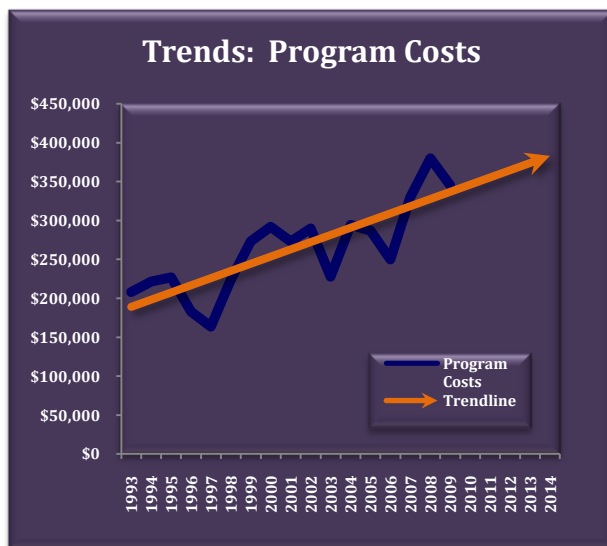
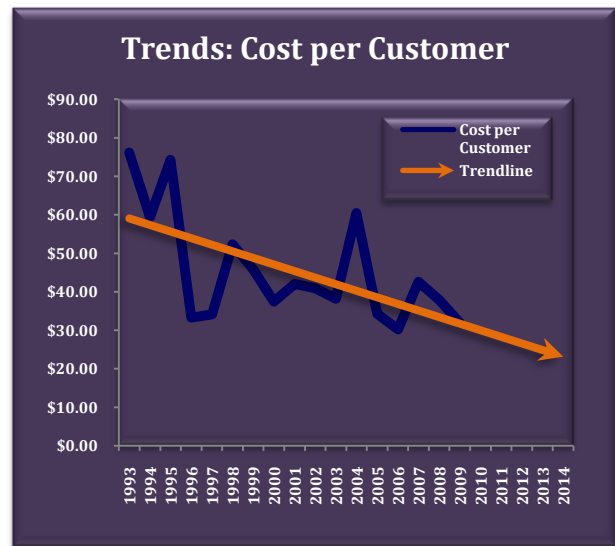
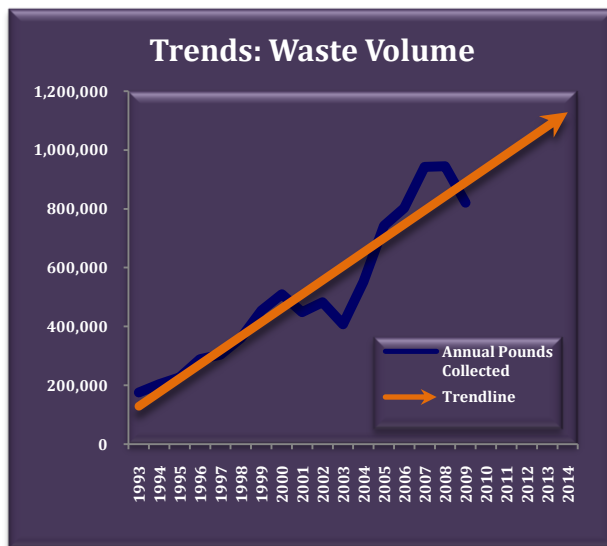
|                           | 2006             | 2007             | 2008             | 2009             |
|---------------------------|------------------|------------------|------------------|------------------|
| Waste Disposal Costs      | \$173,112        | \$209,476        | \$238,436        | \$201,519        |
| Material & Misc. Costs    | \$21,840         | \$20,250         | \$20,355         | \$22,293         |
| Admin/Labor Costs         | \$122,395        | \$147,696        | \$168,785        | \$172,415        |
| Revenue: DATCP Grants     | -\$33,744        | -\$27,140        | -\$28,000        | -\$23,055        |
| Revenue: Business Program | -\$31,279        | -\$23,860        | -\$27,391        | -\$24,275        |
| Revenue: Columbia County  | \$0              | -\$2,600         | -\$3,100         | -\$3,060         |
| Revenue: Satellite Events | -\$2,285         | -\$3,417         | \$0              | \$0              |
| Revenue: Auto Batteries   | \$0              | -\$150           | -\$250           | -\$500           |
| <b>Net Program Costs</b>  | <b>\$250,039</b> | <b>\$329,749</b> | <b>\$380,144</b> | <b>\$345,337</b> |



## Trends

Clearly, the two most significant trends affecting the operation of the Dane County/City of Madison Clean Sweep program are the ever-increasing volume and cost of managing the waste materials received. While waste volumes and costs dipped for the first time in several years in 2009, it is anticipated that costs and waste volumes will resume their upward trends, perhaps significantly, over the next few years. To date, the program has been somewhat limited in growth potential because of its seasonal nature and existing facility constraints.

Growth of the program at the existing facility has been managed efficiently over the past 17 years, as evidenced by the following charts. As volume and overall costs have increased, the cost per pound of waste material managed and cost per customer served have each trended downward. These charts show that there are economies of scale realized as HHW operations grow.





## Emerging Issues

### State Grant Availability

The availability of grants for Clean Sweep programs has been an important, if not critical factor for many local governmental leaders in their decision-making concerning the frequency and duration of their HHW service offerings. Many of the HHW collection programs or events held in the State of Wisconsin over the past decade probably owe their existence to grant funding. Grants have been an important factor in the development of the City of Madison/Dane County Clean Sweep program as well, even though grant funding currently covers less than 10% of annual program expenditures. The waning availability of grant funding for Clean Sweep programs in the State of Wisconsin is an issue having direct impact on the City of Madison/Dane County Clean Sweep program.

In 2009, Wisconsin Governor Doyle proposed elimination of the entire Clean Sweep grant program, including all grants for agricultural chemical collection and disposal. Loss of grant funding would have had a direct impact on certain participants in the City of Madison/ Dane County Clean Sweep program. In past years, grant funding has allowed for a 50% cost reduction in disposal costs for agricultural related businesses (Agricultural VSQGs), and a 100% cost reduction for Dane County farmers for the disposal of agricultural chemicals. Without this funding, these cost reductions would not be available. Thankfully, the Clean Sweep grant program was restored to the State budget in 2009, albeit with a 25% reduction in amounts to all grant recipients.

Growth of clean sweep programs across the State has led to increased competition for state grant funds, and State grant program managers are continually revising grant application requirements in an attempt to distribute diminishing grant funding in a fair

and equitable manner. Clearly, the landscape of grant funding for clean sweep programs is changing. Gone are the days when HHW program managers could reasonably count on receiving an annual grant to help offset the costs of their programs. Unfortunately, Dane County has already received word that they will not be receiving a Clean Sweep grant in 2010.

### Pharmaceutical Waste

Pharmaceuticals are generally not collected at permanent household hazardous waste collection facilities due to the requirement to have law enforcement and, ideally, trained pharmacists present during the collection. Like most other HHW programs in the State of Wisconsin, the City of Madison/Dane County Clean Sweep program does not accept medications and drugs at its HHW collection facility.

Regrettably, unwanted medications are typically flushed down drains or disposed of with other household trash when other viable disposal options do not exist



Recent studies show that pharmaceuticals, hormones, antibiotics and other organic chemicals can enter the environment via municipal wastewater discharges. Until very recently, effective disposal systems for unwanted medications were virtually nonexistent. In 2007, the MedDrop program (<http://www.meddropdane.org>) was created to address this emerging environmental issue. The MedDrop organization is a public-private partnership formed for the purpose of collecting unwanted prescription and nonprescription drugs. By ensuring proper disposal of medicines, the MedDrop program aims to minimize the impact these substances may be having on the local environment. Funding for the MedDrop program is provided in full by area health care providers. Partners in the MedDrop effort include Madison Area Health Care Providers, City of

Madison Recycling, Dane County Public Works, Highways and Transportation, Madison Metropolitan Sewerage District, Madison Police, Public Health – Madison & Dane County, the Pharmacy Society of Wisconsin, Pharmacies in the Dane County Area, and the Wisconsin Society of Pharmacy Students.

Clean Sweep staff support the MedDrop program by participating in planning sessions, assisting in collection day activities, and coordinating hazardous waste vendor pickup, transportation and disposal of waste materials collected during MedDrop events.

The general public's response to the MedDrop program has been phenomenal. Two pharmaceutical collection events were held in 2009, the first on June 6, and the other on October 3, 2009. Each event featured two locations where participants could dispose of their unwanted medications; the City of Madison Transfer Station and the Middleton High School. A total of 2,314 participants dropped off 562 pounds of controlled substances and 4,559 pounds of uncontrolled substances. Working closely with Veolia Environmental Services, and local and regional law enforcement agencies, the wastes were ultimately destroyed at the Veolia hazardous waste incinerator located in Sauget, Illinois, with the controlled substances destroyed under a witnessed burn protocol.

Various individuals and organizations across the State are working to find ways to make pharmaceutical collections more efficient and convenient. At some point in the future, it is hoped that these efforts will result in the creation of a legally sound, secure and continuously available disposal option for pharmaceutical wastes.

## Conclusion

Reflecting on the past season's data, there are a few facts which characterize and highlight

the accomplishments of staff during the 2009 season.

First, the 31% reduction in latex paint volume received at the collection facility in 2009 was a welcome surprise in a tough budget year; helping to achieve a 9% savings in net operating costs as compared to 2008. Over the past several years, program staff have encouraged customers to find ways to reduce the volume of latex paint waste. Perhaps these efforts are beginning to bear fruit. Time will tell if this reduction is the start of a new trend or if the reduction in latex paint volume seen in 2009 was merely just a reflection of a down economy.

The Product Exchange experienced its highest customer usage level ever in 2009, and staff successfully recovered over 31,000 items onto the product exchange shelves, saving over \$47,000 in disposal costs, and setting all-time records in 2009 for the product exchange program.

Although the Clean Sweep program does not govern, manage or operate the MedDrop program, it is believed that the support services provided by Clean Sweep staff over the past few years have been instrumental in helping the MedDrop organization achieve its **10,000 pounds collected** milestone in 2009.

Through the hard work of many people and the ongoing commitment to a better environment by local government and its citizenry, the City of Madison/Dane County Clean Sweep program has developed into one of the most successful and longest-standing programs in the State of Wisconsin. That said, there is much work which remains. It is estimated that the City of Madison/Dane County Clean Sweep program received waste from only 3.2% of the estimated 214,198 households in Dane County in 2009. If U.S. EPA estimates are correct, there could be as much as 21 million pounds of HHW remaining in the homes of Dane County residents at this time.