

SOLID WASTE CONTROL **2007 SUMMARY**

The Monmouth County Health Department Solid Waste Enforcement Team (SWET) completed its twentieth year of operation in 2007. Our staff consisted of a Section Supervisor for Environmental Compliance, a Program Coordinator – Solid Waste, two Senior Environmental Health Specialists, two Environmental Specialists and a Public Health Investigator. Our scope of work for 2007 included compliance monitoring at all Major Operating Sanitary Landfills and Transfer Stations, Closed Landfills, Class A Recycling Facilities, Class B Recycling Facilities – including General, Limited, and Exempt Activities, Compost Facilities, and Farmland Leaf Mulch Sites. Priority activities at SWET also included established programs to monitor solid waste haulers for compliance with registration and transporter requirements, solid waste transporter interviews to determine their eligibility for registration as A-901 exempt haulers, recycling compliance inspections at businesses and institutions throughout the County to ensure compliance with our Monmouth County Solid Waste Management Plan, New Jersey Department of Environmental Protection (NJDEP) Recycling Questionnaire Surveys focusing on schools and multi-family dwellings, and investigation and resolution of environmental complaints related to solid waste which are referred to us by the NJDEP and local citizens. SWET also oversees the Household Hazardous Waste Program. Additional programs in our scope of work included Domestic Preparedness for Bio-Terrorism and Compliance Assistance for School Laboratory Chemical Management.

SOLID WASTE FACILITY INSPECTIONS

Monmouth County has 177 facilities which required at a minimum an annual inspection for each site. Disposal of solid waste has evolved from a simple process of dump and cover at the landfill into more diverse options offering waste materials a second chance to be utilized. Material Recovery Facilities are one such example where waste types are segregated, consolidated and processed into commodities which will later be recycled or reused. A typical demolition job formerly landfilled will now yield products which may be recycled into road construction materials, boiler fuel, or garden mulch. Recycling Facilities now typically take many non-traditional recyclable items from the waste stream including concrete, wood, chemically treated wood, plastics (from vinyl siding to children's toys), electronics, tires, and other materials. Each of these particular solid waste or recycling facilities has specific operational standards set forth in State regulations which are the foundation of our facility enforcement. We put forth great effort in keeping up with these changes in order to do our job with the utmost proficiency. During the past year we conducted 510 inspections at solid waste and recycling facilities in Monmouth County. While the vast majority was operating within standards established by the State, we did cite 30 facilities for varying degrees of non-compliance. These sites were each issued a Notice of Violation and in many instances granted grace periods to bring the facility into compliance. There were several sites that were consistently non-compliant with operational standards. Coupled with the fact that NJDEP was deeply involved in enforcement actions at these sites, we issued Notices of Violation but referred the follow-up enforcement to NJDEP at their request. Documentation by way of reports, photographs, and video were all forwarded to the State to supplement their enforcement efforts at all non-compliant facilities. During the past year we conducted joint inspections with the State at the following sites; Becker Tree Service (illegal solid waste facility) in Colts Neck, Goldstar Paving Class B Recycling and Lucas Brothers Class B Recycling in Marlboro, Mazza Transfer Station and Mazza Class B Recycling in Tinton Falls, South Jersey Agricultural Products Class B Recycling and Wall DPW Class B Recycling Exempt Activities in Wall.

RECYCLING ENFORCEMENT

SWET conducted 1,153 compliance inspections at businesses and institutions throughout the County. This resulted in 548 violations of recycling requirements for businesses as specified in the Monmouth County Solid Waste Management Plan. Initial warning notices to non-compliant businesses come with a grace period of thirty days during which we may assist them in implementing measures necessary to bring them into compliance. Those businesses found non-compliant after a second follow-up inspection were issued a penalty in the amount of \$250. Though the fines are not large by solid waste enforcement standards, they are significant enough that we rarely see a business penalized twice. In 2007 we issued penalties to 35 businesses. It is standard practice for us to continue to monitor a site until it is in compliance, and all of these businesses which received penalties are now compliant.

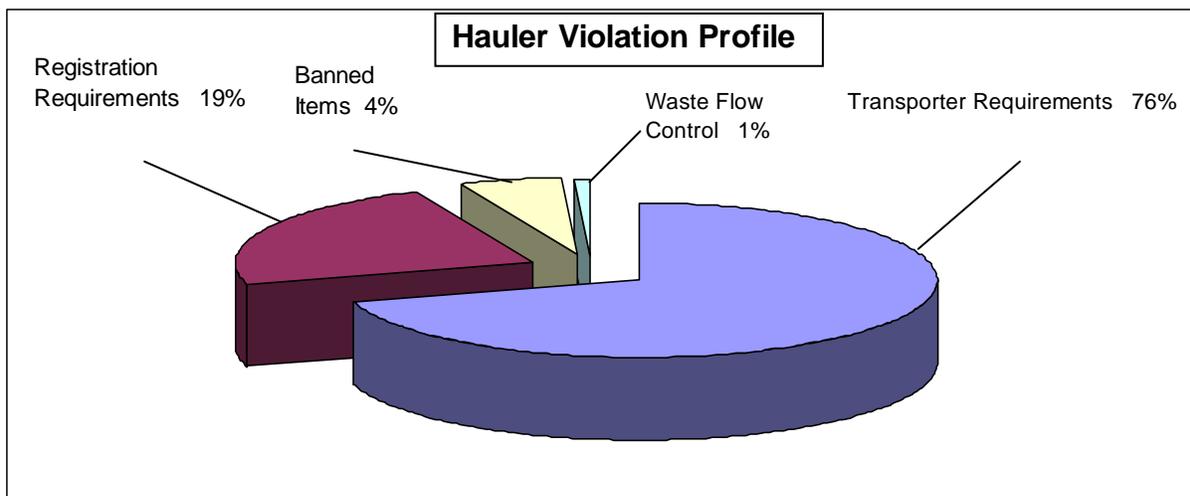
SWET conducted a joint recycling compliance inspection of Brookdale College with the NJDEP. Our initial site tour took place in June, after which we met with school officials and support staff to discuss current status and recommendations for improvement to infrastructure and waste/recycling handling measures. Our follow-up in the fall yielded a pleasant response as newly implemented procedures resulting from our spring meeting had the State comparing the Brookdale recycling program favorably with other similar sized colleges in the State.

We continued our participation in the NJDEP Recycling Questionnaire Program, where this year the focus was on multi-family dwellings. During 2007, inspections of schools and apartment complexes were done in the following communities; Freehold Boro, Freehold Twp, Hazlet, Holmdel, Howell, Long Branch, Manalapan, Marlboro, Neptune Twp, Spring Lake, Spring Lake Heights, and Wall Twp.

We also teamed up with the Long Branch Public Works Department to survey apartment buildings and condominiums in their City. It gave us an opportunity to complete a substantial number of the surveys while also giving both Long Branch and SWET insight into recycling issues at these multi-family dwellings. A total of 20 apartment complexes and 10 condominiums were inspected for compliance with Municipal, County, and State recycling regulations. Most facilities had an adequate set up for currently mandated recyclable items but some problems were still evident. Proper signage was important in letting residents know what was acceptable. Some of the facilities lacking the signage had undesirable materials such as car batteries, concrete, paint cans, or solid waste accumulations in the recycling area. Some places had unlabeled 30 gallon containers filled with an assortment of bottles, cans, newspaper, and garbage, thus requiring further separation by collection personnel. SWET did provide labels for some of the containers which were then marked properly by the Long Branch Public Works personnel. Overall, condominiums seemed better prepared and equipped than the apartments to meet the challenges of the County's proposed enhanced recycling program. We plan to reach out to other communities this year in an effort to enhance recycling efforts at multi-family dwellings. The community stands to benefit monetarily. Currently, processors pay for clean source separated metal, cardboard, and paper. Commingled cans and bottles are accepted at no charge while landfill tipping fees are currently over \$70 per ton for household waste.

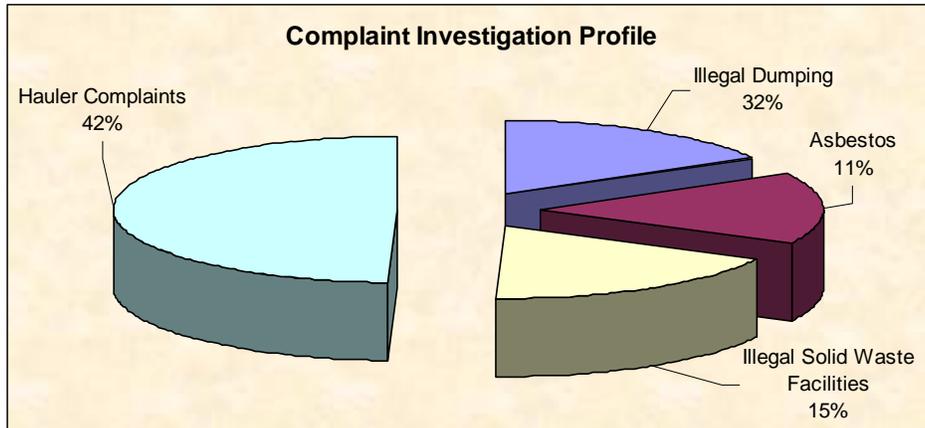
SOLID WASTE TRANSPORTER INSPECTIONS AND INVESTIGATIONS

SWET conducted 849 solid waste transporter inspections during 2007. These inspections resulted in documentation of 278 violations. Inspectors typically focus on registration and transporter requirements as specified in the New Jersey Administrative Code 7:26 Regulations adopted pursuant to the New Jersey Solid Waste Management Act. During these inflow inspections we also monitor loads for banned or hazardous materials, regulated medical waste, and mandated recyclable materials as specified in our Monmouth County Solid Waste Management Plan. The violation profile was as follows, Registration Requirements – 55, Transporter Requirements - 223, Banned Materials (may include hazardous materials, compressed gases, liquids, and refrigerants) – 14, Waste Flow Control - 2. While most violations written during these inspections fall under the grace period rules, all those that do not and which merit further investigation or require legal proceedings are copied to the NJDEP Bureau of Solid Waste Compliance and Enforcement prior to the issuance of a summons.

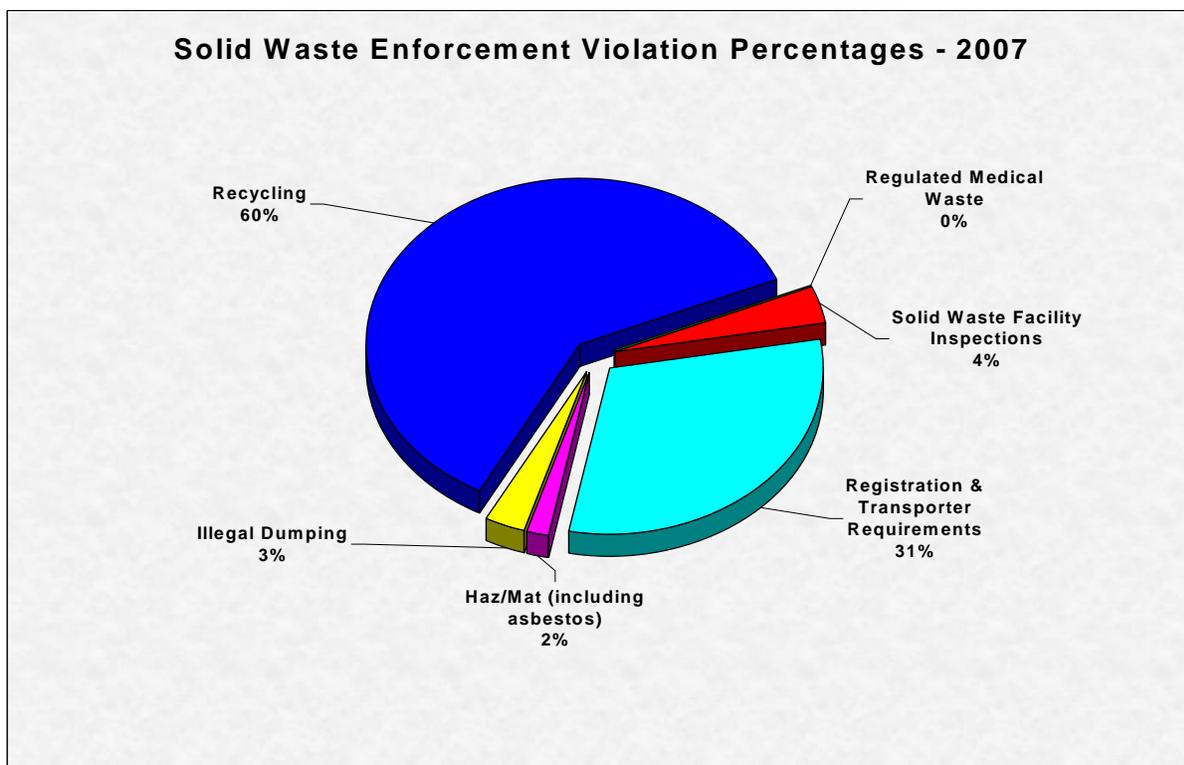


SOLID WASTE / ENVIRONMENTAL COMPLAINTS INVESTIGATIONS

We investigated a total of 91 environmental complaints originating from local citizens as well as the NJDEP. Investigations of all NJDEP referrals (14 for 2007) were responded back within five days with updates on current status. Historically the majority of our complaints center on solid waste transporter violations, illegal dumping, mishandling of asbestos containing waste, and illegal solid waste facilities. There were 45 complaints for which a Notice of Violation was issued and appropriate grace periods extended to the responsible parties to abate the violations. A total of 17 cases involved violations of a non-minor nature which required further legal action in the local municipal courts. All cases heard in court resulted in the responsible party pleading guilty and being ordered by the court to correct/abate these violations as well as pay a fine. SWET adheres strictly to all CEHA notification and reporting requirements regarding enforcement activities and this information is forwarded to the NJDEP on a daily or weekly basis, whichever applies.



VIOLATION TYPES	2007 TOTAL
Registration & Transporter Requirements	278
Haz/Mat (including asbestos)	14
Illegal Dumping	27
Recycling	548
Regulated Medical Waste	0
Solid Waste Facility Inspections	32



NJDEP A-901 EXEMPT HAULER REGISTRATION PROGRAM

The Solid Waste Enforcement Team conducts interviews with prospective registrants for the purpose of determining their eligibility and permitting them as A-901 Exempt Self Generator Solid Waste Transporters. Through this program we interviewed 211 haulers during 2007. Registrants were from Monmouth, Ocean, Middlesex, Somerset, and Union Counties.

COMPLIANCE ASSISTANCE FOR SCHOOL CHEMICAL MANAGEMENT

This program provides schools in Monmouth County with guidance in complying with local, State, and Federal regulations as well as offering best management practices pertaining to laboratory chemical management and the New Jersey School Integrated Pest Management Act/Universal Waste Regulations. Our CEHA contract for 2007 called for inspections at 20 schools with the emphasis on higher education. We have learned that school district facilities manager's have been our most reliable and expedient partner in accessing schools and having necessary remediation completed promptly. In some schools we came across some hazardous items that required immediate attention and should be disposed as soon as possible. We continue to funnel those items that are acceptable for disposal via the Household Hazardous Waste Program to the attention of our Section Supervisor for Environmental Compliance. 4764 pounds of materials were collected and disposed or recycled through our program, at no charge to the schools. Hazardous materials such as radioactives, explosives and shock sensitive materials must be handled by a licensed hazardous material contractor. The most prevalent problems continue to be schools maintaining excess inventory, storing chemicals that are no longer part of the curriculum, inappropriate shelving and improper storage cabinets.

HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAMS

SWET oversees the implementation of the County Household Hazardous Waste Program. This includes the Household Hazardous Waste Facility and Single Day Collections Events. In 2007 we held three satellite collections in Hazlet (spring and fall) and in Upper Freehold Twp (fall). Public participation was again outstanding as we had 1410 vehicles for the three events. We disposed of 103,672 lbs of hazardous materials via our contractor. The Health Dept additionally collected and recycled the following items; 1332 gallons of waste oil, 285 gallons of anti-freeze, 4508 lbs of automotive batteries, 887 lbs of dry cell batteries, 393 compressed gas tanks, and 97 oil filters. All of these materials were delivered to the HHW Facility for processing and recycling.

DOMESTIC PREPAREDNESS FOR BIOTERRORISM

SWET is involved in the planning, set-up, and operation of the RSS Warehousing operation for the receipt, storage, and shipment of medical supplies from the Strategic National Stockpile (SNS). As warehouse managers we are responsible for receiving, storing, order picking, shipping of supplies, maintaining chain of custody, warehouse safety and security, and warehouse personnel administration. We also provide briefing to the public health coordinator or designee on status of prophylaxis/vaccine inventory, deliveries made, and potential additional prophylaxis/vaccines requested.

CONTINUING EDUCATION

The SWET attended the following training courses; Air Pollution Investigation Guidelines, Bayshore Vinyl Haz Mat Drill, Blood Borne Pathogens, Court Testifying Do's and Don'ts, Incident Command System - 400, In House Haz Mat Training Drills, Intermediate Incident Command System for Expanding Incidents for Operational First Responders, Microsoft Access Training, Municipal Recycling Coordinators Workshop, NJDEP/CEHA Solid Waste Workshop, NWS Earle Haz Mat Drill, Respirator Fit Testing, Right To Know, Sexual Harassment, and Workplace Discrimination.

Household Hazardous Waste Facility

During 2007, the Monmouth County Household Hazardous Waste collection facility provided service to residents, not for profit organizations, and other government agencies located within the County of Monmouth. This service, as in previous years, is provided free of charge by the Monmouth County Board of Chosen Freeholders and is operated by the Monmouth County Health Department employees. The Facility is staffed by 1 Section Supervisor Environmental Compliance, 1 Hazardous Waste Operations Supervisor, 1 Hazardous Materials Specialist, 3 Hazardous Materials Responder Operations, and 1 Clerk Typist. **The Facility staff processed 819,955 pounds of materials, and 6,900 appointments. Since January of 1997, the Facility has collected, disposed and/or recycled more than 6.87 million pounds of materials.**

Facility management takes pride in knowing we manage materials at the lowest disposal cost of any program in the State; as well as knowing we are making a difference in environmental quality. Throughout the year, the facility collected and safely disposed over 135,900 pounds of ozone depleting chemicals and potential green house gas (GHG) producers. These harmful chemicals may otherwise be released into the atmosphere. Once released, they either directly harm the ozone layer, or contribute to the production of GHG's. Both aforementioned scenarios contribute to global warming. Also, volatile chemicals within these materials off gas while stored in the home. The vapors can be harmful to children when inhaled. The following examples are some of the quantifiable cost saving measures taken.

Each year, unused propane from cylinders submitted to the Facility as waste, is used to heat the office and warehouse during the heating season and power the back-up electric generator. Not only does this provide free fuel, but the cost of \$1.25 per pound (disposal contract) for cylinders is avoided. Based on the weight of empty cylinders recycled as scrap metal (28,778 pounds), and the weight of propane in an average cylinder submitted to us (7 pounds), the disposal cost avoidance for the year was at least **\$47,000** dollars. Brass valves generated as a result of the devalving of the cylinders produced **\$1,275.00** in revenue.

In order to divert paint from HHW collection days, the facility holds bi-monthly DPW/Non Profit/Governmental collection days. This has saved 43,350 pounds of paint from being disposed through the single day remote collections. The savings in paint disposal for this year was more than **\$32,500**. Of course, other materials are collected and savings/revenues occur, but it is important to highlight the paint disposal savings because paint is 67% of the disposed materials submitted to our HHW program.

The household battery recycling program continues to save at least **\$4,100** per year by sorting rechargeable batteries into 4 individual chemistries, packaging them according to chemistry, and shipping them free of recycling and transportation charges. The Rechargeable Battery Recycling Corporation's (RBRC) funds this operation. The county supplies packaging, labor, and management. Also, spent batteries that originate from emergency lighting units, power wheels vehicles, hand tools, and other small lead acid battery powered goods, are sorted. By packaging these batteries with lead acid car batteries an income of \$0.05 per pound is realized.

GENERAL ACTIVITY

There were 6,217 (90%) scheduled appointments and 683 (10%) unscheduled participants for a total of 6,900 collections for the year. Scheduled appointments increased this year. Our goal is to service the public safely by reducing the unscheduled appointments to a number that will not cause a waiting line into the facility. Also, unscheduled participants may hinder facility personnel from performing other necessary tasks onsite throughout the day. Additionally, there were a total of 509 "No Shows" (Individuals or Organizations with a scheduled and confirmed appointment that did not show up) this year. The average appointment yielded 118.7 pounds per participant. The average disposal or recycling cost was 22 cents per pound.

SPECIFIC ACTIVITY

The facility collected and disposed or reused the following materials throughout 2007:

376,000 Pounds of Latex Paint (188 Tons); 114,000 Pounds of Oil Base Paints (57 Tons); 22,000 Pounds of Pesticides and Herbicides (11 Tons); 13,000 Pounds of Miscellaneous Flammable Liquid (1,650 Gals);

12,000 Pounds of Aerosol Spray Cans (6 Tons); 10,500 Pounds of Fuel Oil Tank Sludge (1,100 Gals); 8,000 Pounds of Corrosive Chemicals (5 Tons); 8,000 Pounds of Gasoline (1,100 Gals); 3,300 Pounds of Miscellaneous categories including 1 Pound Propane Tanks, Highway and Boat Flares, and PCB Ballasts; 2,000 Pounds of Non Hazardous Liquids (270 Gals); 1,500 Pounds of Pool Chlorine and Miscellaneous Oxidizers (.75 Ton); 500 Pounds of Pentachlorophenol containing products.

The facility also collected and recycled or reused the following items throughout 2007:

71,600 Pounds Non-rechargeable Household batteries = \$52,486.60 Expense; 44,000 Pounds Lead Acid Boat and Auto Batteries = **\$2,200.00 Revenue**; 59,600 Pounds or 7,357 Gallons of Motor Oil = **\$2,942.80 Revenue**; 28,800 Pounds High Grade Steel Cylinders = No Charge; 14,100 Pounds or 1,698 Gallons of Anti Freeze = No Charge; 5,300 Pounds Rechargeable Household Batteries = No Charge; 4,300 Pounds of Crushed Steel Motor Oil Filters = No Charge; 850 Pounds of Brass Gas Cylinder Valves = **\$1,275.00 Revenue**; 427 Pounds Freon compressed gas = \$2135 Expense; 800 Pounds Fluorescent Tubes = \$1382.50 Expense;

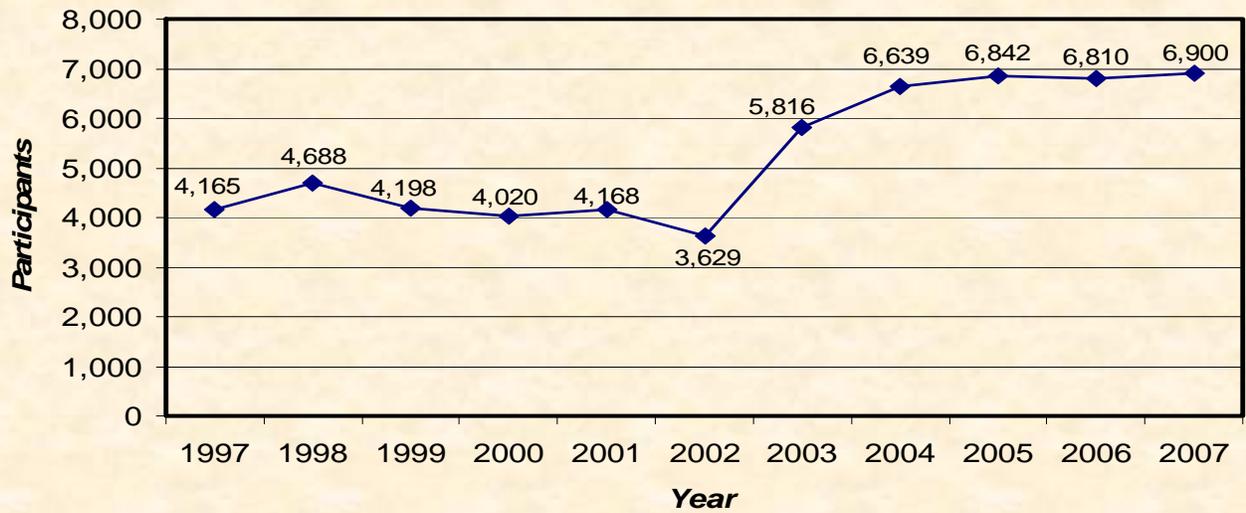
The facility redirected the following materials to the MCRC or Global for disposal or recycling:

10,600 Pounds of ID 10 Trash = No Charge (MCRC); 6,100 Pounds of Commingled Plastic, Glass, and Metal Containers to Global = **\$4.58 Revenue** to MCRC; 1,800 Pounds of Corrugated Cardboard to Global = **\$4.50 Revenue** to MCRC.

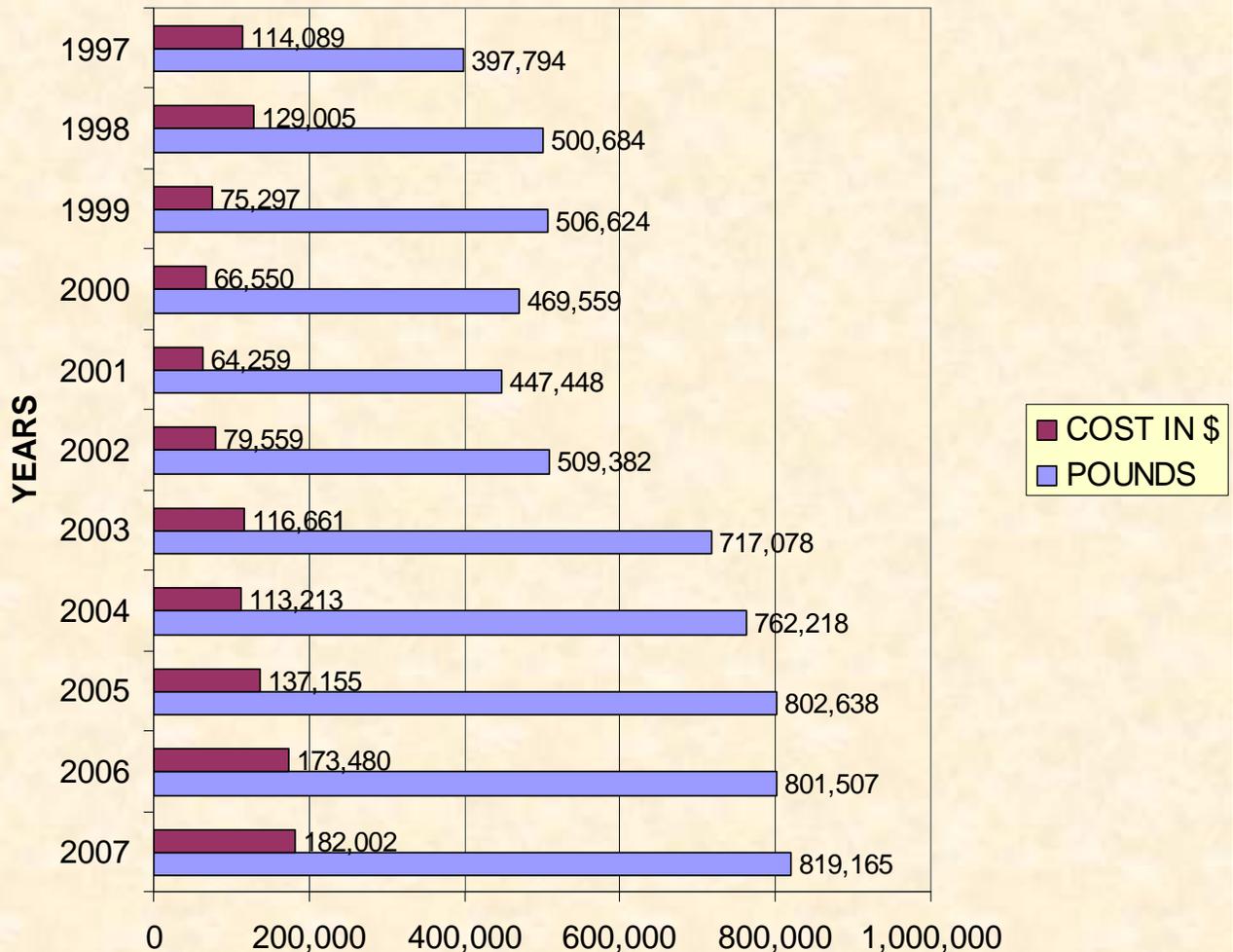
Limited materials reuse has a minor effect on reducing the costs of recycling/disposal during the year. Reuse of unopened packages is only permissible to County personnel and Departments. Most materials collected at the facility are spent, contaminated, or ruined by improper storage. Some of the unopened materials that can be reused are: Latex Paints, Oil base paints, Glues and Caulks, Flammable Products, Pool Chemicals, Cleaners, Automotive fluids, and Drain openers. However, many are not useable due to the following: wrong color; improper storage causing mold growth; previously frozen; containers that are bulging; rusty; punctured; or unlabelled; contamination by other products, dirt, rain water, brushes, rollers, etc.; Evaporation of volatile components; and expired expiration dates. If any materials collected are usable, the reuse must be approved by the Section Supervisor or Waste Operations Supervisor. Most of the small Freon containers collected are reused by the MCRC shop and Central Motor Pool to charge air conditioners. Propane cylinders that meet current DOT standards are reusable for barbeques and camping. Reusable antifreeze is given to the MCRC shop to recycle with used antifreeze. Laundry detergent is reused to clean staff coveralls. Other materials are reused onsite for maintenance activities. In January, a large loft in building HHW-1 storage area was dismantled piece by piece. The wood and hardware were saved and donated to the fire academy to build a practice structure on the academy site. An estimated 10 pounds of qualifying, submitted materials are reused per week (excluding propane which is accounted for separately). This saves about **\$115** in disposal costs and decreases or eliminates expenditures for new materials.

Facility personnel attended the following training sessions in 2007: Fit Testing, DEP Hazardous Waste Handler Seminar, Forklift Training, Emergency Response to Chlorine Emergencies, SCBA Update, Right to Know-Initial, Right to Know-Refresher, Blood Borne Pathogens, Communications Training Skills, CPR Refresher, First Responder EMT Refresher, OSHA Hazmat Refresher, Confined Space Training, WMD Haz Mat Technician for Radiological Incidents, NIMS ICS-300, Monmouth County Health Dept. Haz Mat Drills (8 x throughout the year), WMD Haz Mat Technician Certification, OSHA Hazardous Waste Operations and Emergency Response 40 Hr., OSHA Hazardous Waste Operations and Emergency Response 8 Hr., Firefighter 1 Certification, WMD CBRNE Technician Training 40 Hr., WMD Sampling for Public Safety, Odor Course Training, Transportation Training MCFA, Preventing Sexual Harassment & Preventing Employment Discrimination.

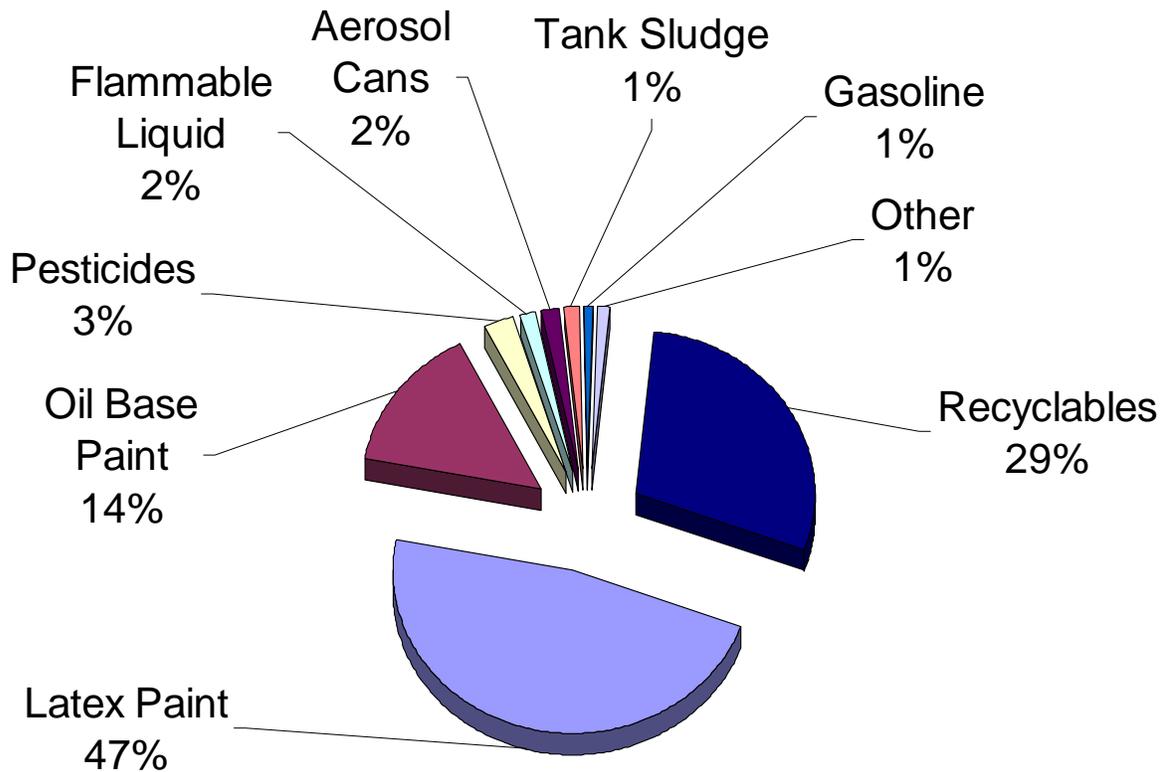
Facility Participation History



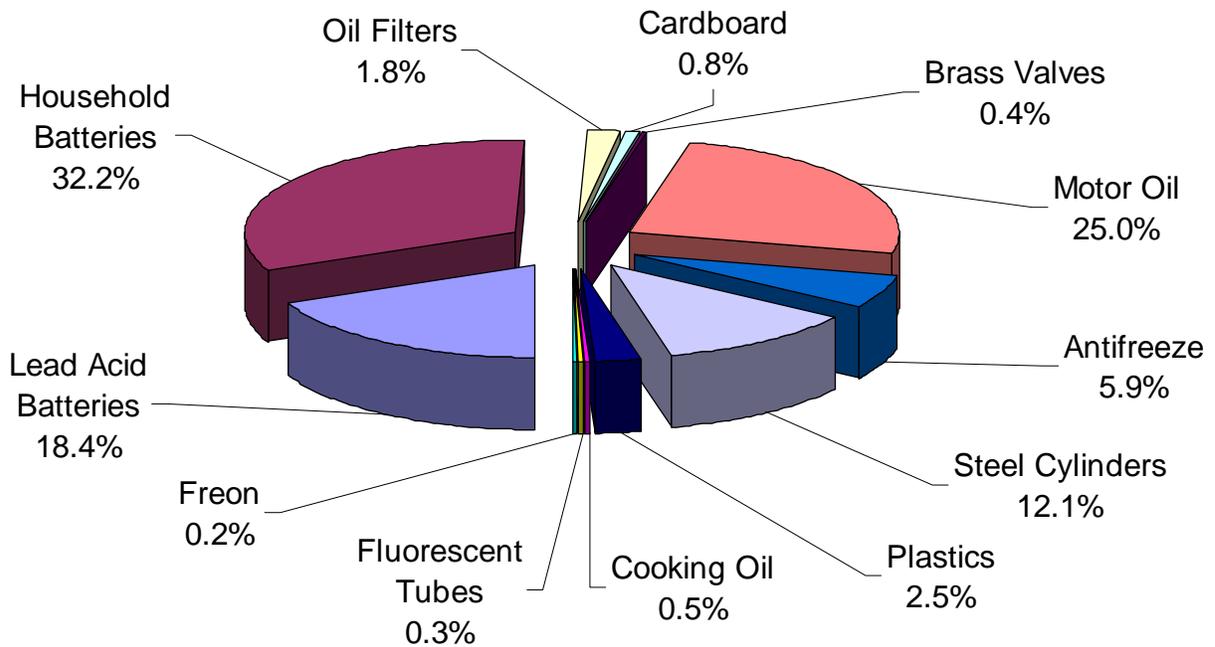
MATERIALS COLLECTED VS DISPOSAL COST



MATERIALS COLLECTED - 2007



Percentage of Materials Recycled Based on Pounds Recycled - 2007



Average Pounds per Vehicle Serviced at HHWF



Historical Trend Analysis For Total HHW Removed From The Municipal Waste Stream By All Monmouth County HHW Programs

