



City of Tucson/Pima County

# HOUSEHOLD HAZARDOUS WASTE PROGRAM

Annual Report – Fiscal Year 2010

## FY 2010

This Annual Report highlights the Program's key activities and accomplishments during Fiscal Year (FY) 2010. It includes summaries of this past year's program participation and waste disposal collection activities, including the Antifreeze, Batteries, Oil, and Paint (ABOP) collection stations, the Los Reales Computer, Antifreeze, Oil, and Paint (CABOP) collection stations, the Drop & Swap Program, and the Small Business Waste Assistance Program (SBWAP). This report also summarizes the Program's financial status, and includes relevant historical background and operational information.

## PROGRAM HIGHLIGHTS FOR FY 2010

- 2010's overall participation was over 32,000, a 7% decrease over last year
- ABOP participation decreased 4% over last year
- The Drop & Swap program returned over 22,000 items to the community for reuse, including close to 23,000 gallons of latex paint
- Over 45,000 pounds of waste were collected from small businesses through the SBWAP for proper disposal
- Ninety-eight percent of the 619 tons of waste collected were recycled
- Overall program cost is \$0.55 per pound and disposal cost is \$0.06 per pound of household hazardous waste (HHW) products collected
- One hundred thirty-four program volunteers contributed over 1,700 service hours at various collection and outreach events

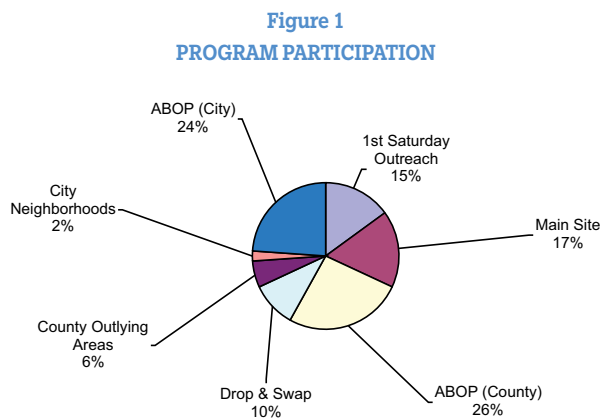


## PROGRAM PARTICIPATION

Annual public participation in the Program is tracked in six different categories (listed in Figure 1). Annually, all categories tend to fluctuate slightly depending on operational changes that can affect participation. This year, the July outreach events were canceled due to the 4th of July holiday. As a result, Saturday outreach participation dropped 3%. Overall program participation was also affected resulting in a decrease of 7%.

- Total public participation for the year was more than 32,000
- Nearly 6,600 participants used a program service for the first time – more than 20% of total participation
- Annual participation for the First Saturday outreach events was 3,662 at the Speedway site, 919 at the Calle Concordia site, and 386 at the Irvington site

Figure 1 illustrates participation distribution for FY 2010.



More than 360 collection events were held, including:

- Feldman Neighborhood
- Mid-town Neighborhoods
- Green Valley
- Tohono O’odham Nation
- Tucson Estates Foothills Community
- Raytheon/Bombardier



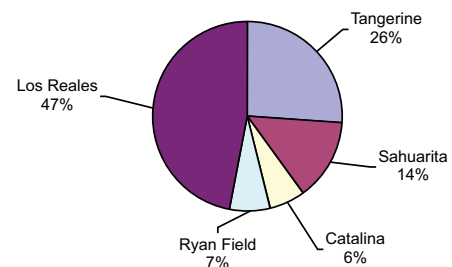
## ABOP COLLECTION STATIONS (Antifreeze, Batteries, Oil, Paint)

Public participation at the five ABOP sites has been increasing in recent years. This year, drop-offs at the Los Reales Landfill ABOP Facility increased 3% over last year. Total ABOP participation at this site is nearly equal that of the four County ABOPs. As a result of budgetary constraints and efforts to improve overall efficiencies, all City and County landfills and transfer stations, including the ABOP Stations, are closed on Sundays.

- More than 16,000 residents participated through one of the five ABOP stations
- ABOP participation decreased 4% in FY 2010
- ABOP participation makes up 50% of program participation

Figure 2 shows FY 2010 participation at the ABOP Stations.

**Figure 2  
ABOP PARTICIPATION**



## DROP AND SWAP

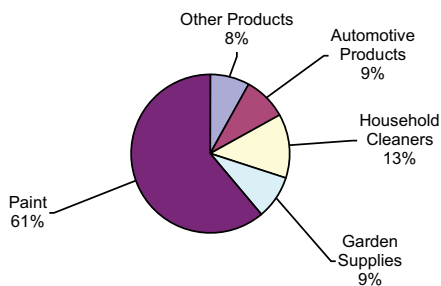
Many of the materials dropped off at collection events are useable products. Redistribution and reuse of these products is proving to be a positive alternative to disposal. Redistributing these products for their original intent saves money, natural resources, and time. Many of the items collected by the Program are still in good condition and the containers are often half-full to full. At the main collection site, useful products are available to residents at no cost. This year, more than 3,400 residents took advantage of this free service.

- Over 22,000 items were returned to the community for reuse, including 22,870 gallons of latex paint
- The public saved an estimated \$234,000 in out-of-pocket expenses through the use of this service
- Over \$55,000 in disposal expenses were avoided as a benefit of redistribution



Figure 3 illustrates the redistribution of the still useful products collected in FY 2010.

**Figure 3**  
**PRODUCT REDISTRIBUTION**



*Pollution prevention and waste minimization goals are accomplished through the redistribution of useful consumer products*

### **SMALL BUSINESS WASTE ASSISTANCE PROGRAM**

The Small Business Waste Assistance Program (SBWAP) provides local businesses an option for disposing of hazardous materials generated at their business. Most new businesses registered through the SBWAP are referred through the Fire Department's customer service desk and Environmental Services' customer service personnel. Businesses call the City inquiring about disposal services for their waste materials, including hazardous materials. This year, fluorescent lamp disposal was the number one inquiry received by Environmental Services' Customer Service Representatives. These calls increased when Environmental

Services notified commercial customers that the Los Reales Landfill would no longer accept commercially generated fluorescent lamps (including low-mercury "green end cap" fluorescent lamps, compact fluorescent bulbs or high intensity discharge lamps) for disposal. This meant that these lamps could no longer be placed in trash bins with regular everyday garbage destined for the landfill. Many City solid waste commercial customers are now responsibly recycling their fluorescent lamps through the SBWAP. This has increased the total number of new businesses registered by 58% to a total of ninety-five. While the majority of businesses using this service are newly registered businesses, the number of repeat customers in the SBWAP has been increasing steadily.

- Total revenue this year was over \$15,000 – a 2% increase
- Seventy-eight percent of the participating businesses were newly registered with the SBWAP
- Since the SBWAP was instituted in 1993, over 576,000 pounds of hazardous waste have been collected from small businesses

Table 1 provides a summary of the FY 2010 activity for the Small Business Waste Assistance Program.

**Table 1. SBWAP Summary**

	FY 2010
New Businesses Registered	95
Businesses Registered (1993 - June 30, 2010)	990
Participating Businesses	122
Waste Received (pounds)	45,167
Revenue	\$15,342



## WASTE STREAMS

When Environmental Services stopped accepting fluorescent lamps at the City landfill, the number of lamps collected through the Program from both residents and small businesses significantly increased. Last year, over 4,700 pounds of fluorescent lamps were collected. Although the total amount of fluorescent lamps collected annually has been increasing steadily, this year's total is twice the amount collected in 2009. This waste stream is expected to continue to increase with the recent push for residents to switch from traditional light bulbs to the more efficient Compact Fluorescent Lamps (CFLs).

When spent, residents should dispose of their CFLs and fluorescent tubes (4-foot and 6-foot) through one of the program's collection sites. CFLs should not be disposed of with household garbage as they contain small amounts of mercury sealed within the glass tubing and, if broken, will release mercury into the environment. Although mercury contained in a CFL is small enough to fit on the tip of a ballpoint pen, it can contaminate up to 3,000 gallons of water. A 4-foot fluorescent tube contains almost twice the amount of mercury than in a small CFL. The energy savings realized by using fluorescent lamps is significant, but residents and businesses are encouraged to handle these lamps appropriately and dispose of them in an environmentally conscious manner.

- This year, over 50,000 gallons of used oil were collected and re-refined (recycled) into an industrial grade lubricant
- At an average price of \$0.49 per gallon used motor oil generated over \$24,500 in revenue
- Of the 619 tons of waste collected this year, 98% were beneficially reused or recycled

Table 2 shows waste collected by waste stream, weight, and ultimate fate. Figure 4 shows the materials diverted from the landfill and wastewater treatment plants, and Figure 5 shows the ultimate fate of diverted materials.

Table 2. Diverted Materials

WASTE STREAM	POUNDS FY 2010	FATE
Acid	6,644	Treatment
Antifreeze	33,680	Recycle
Auto Battery	93,175	Recycle
Base	3,302	Treatment
Chlorinated Liquid	6,255	Fuel
Computer/Electronics	26,235	Recycle
Drop & Swap	64,966	Redistribute
Dry Battery	1,415	Recycle
Fluorescent Lamp	9,455	Recycle
Inkjet/Toner Cartridge	376	Recycle
Latex Paint	228,700	Redistribute
Latex Sludge	130,060	Recycle
Metal/Cardboard	68,022	Recycle
Oil Filter	2,885	Recycle
Oxidizer	865	Treatment
Paint Sludge	121,296	Fuel
Pesticide	10,942	Treatment
Propane Tank	11,000	Recycle
Soap and Wax	16,166	Fuel
Used Oil	402,960	Recycle
<b>TOTAL</b>	<b>1,238,399</b>	

Figure 4  
DIVERTED MATERIALS

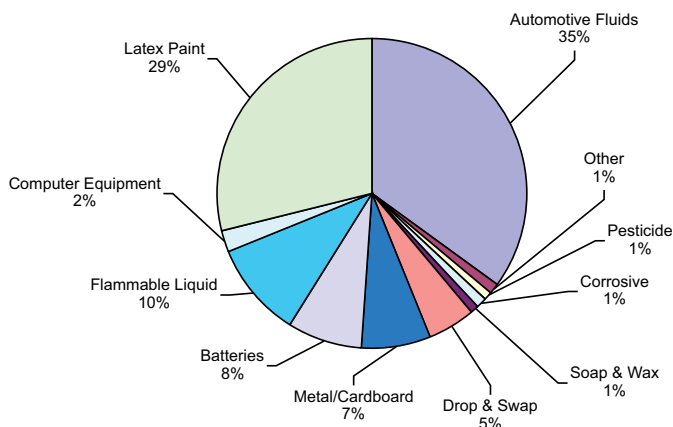
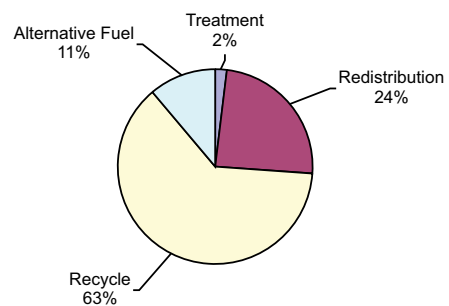


Figure 5  
DISPOSITION OF DIVERTED MATERIALS



## BUDGET

Achieving and maintaining financial stability is a long-term goal for the Program and can be challenging even in a strong economy. With diminishing resources due to the nation-wide economic downturn, this year's financial contributions from both the City and County were reduced. To maintain current services and keep up with increasing operating expenses, the Steering Committee approved the sale of recycled latex paint. Recycled latex paint, which is packaged in five gallon buckets, is now offered for sale to the public for \$5 per bucket. The nominal fee charged for paint was assessed in order to recover

the costs associated with purchasing buckets and lids. Total revenue generated this year from recycled latex paint was \$21,350.

- Total disposal expenses decreased 17% along with an overall decrease in total pounds processed
- Although total pounds processed decreased, total program expenses remained constant due to increased operating supply costs
- Revenues of more than \$79,500 from the sale of scrap metal, lead-acid batteries, used oil, latex paint, and SBWAP helped offset total operational and disposal expenses

Table 3 shows FY 2010 program expense summary.

**Table 3. Expense Summary**

	FY 2010
Annual Operating Budget	\$678,194
Total Disposal Cost	\$75,226
Total Pounds Processed	1,238,399
Program Cost per Pound	\$0.55
Disposal Cost per Pound	\$0.06

## VOLUNTEERS

Volunteers have always been an integral part of the Program's success. Each month at outreach collection events, trained volunteers work in various capacities. Volunteers greet the public to gather basic information from residents dropping off materials. Other volunteers help the residents unload materials from their vehicles. Another set of volunteers help sort the materials by hazard class and pack materials in shipping containers. Regardless of what job assignment each volunteer assumes, all volunteers are greatly appreciated for their hard work and public service!



This year the Program partnered with the Southern Arizona Environmental Management Society (SAEMS) to host a joint volunteer appreciation event. Volunteers were treated to a fun-filled night at the Gaslight Theatre where they enjoyed "The Cisco Kid" stage production. Special awards were presented during intermission. Special thanks to the SAEMS sponsors that helped fund this event.

- This year 134 volunteers participated at collection events contributing a total of 1,718 service hours

Claudia Stammer received the Ruskin Award, which is awarded to the volunteer with the most service hours. Congratulations Claudia, HHW Volunteer of the year!

*Many thanks to all our volunteers!*



## HISTORY

The Program, a joint project between the City of Tucson and Pima County, was designed to collect household hazardous wastes from residents of our community. The formal Program began in 1989, and in 1990, a permanent facility was built. In the 21 years since the Program's inception, over 18 million pounds of household hazardous waste have been collected and diverted from wastewater treatment plants and landfills in Tucson and Pima County.



## BENEFITS

The goal of the Program is to help alleviate problems that can pose serious threats to human health and the environment.

HHW services help to:

- Protect children's health by minimizing potential home exposure
- Protect Pima County's ability to effectively treat wastewater
- Protect solid waste workers' health
- Conserve valuable landfill space
- Safeguard groundwater from potential leaching of contaminants

## OUTREACH & OVERSIGHT

The Program also conducts education and outreach activities that focus not only on raising the public's awareness of the collection program, but also on pollution prevention methods to reduce the generation of household hazardous waste. This year, program staff and volunteers participated in the annual Earth Day Festival and several Master Recycling Classes.

The Program Steering Committee provides oversight and direction for the Program's activities. The Steering Committee is comprised of seven members representing business and government acting in an advisory capacity to the Program.

## COLLECTIONS

The Program maintains several convenient collection opportunities.

Every Friday and Saturday, the main facility, located at 2440 W. Sweetwater Drive, is open to receive household hazardous materials from 8 a.m. to 12 noon.

Monthly outreach collection sites are open on the first Saturday of every month (excluding holidays) from 8 a.m. to 12 noon. These outreach sites are located at:

- Eastside City Hall, 7575 E. Speedway Boulevard
- Tucson Water, Plant 2, 1102 W. Irvington Road
- Pusch Ridge Christian Church, 440 W. Calle Concordia

Antifreeze, Batteries, Oil, and Paint (ABOP) collection sites are available daily to residents during normal operating hours. ABOP Stations are located at:

- Los Reales, Sahuarita, and Tangerine Road Landfills
- Catalina and Ryan Field Transfer Stations

In addition, the Small Business Waste Assistance Program (SBWAP) is available to assist qualified businesses at the main site. The SBWAP offers a safe and economical option for businesses to properly dispose of their hazardous wastes.

Other collections are periodically held in outlying communities and within City neighborhoods.

The collection sites and stations are staffed by a combination of volunteers and Program staff. When the main site is closed to the public, trained staff process the materials received by sorting and properly preparing the materials to be transported for recycling, reuse, redistribution, and safe treatment or disposal.

## PROGRAM GOALS FOR THE NEXT YEAR

- Explore creative funding strategies to ensure long-term funding for established collection services, for expanded service opportunities, and to implement education efforts
- Enhance public education and outreach to focus on pollution prevention efforts by developing information literature
- Focus on increasing small business participation in the SBWAP by conducting outreach and speaking engagements to industry groups and establishing active partnerships with these groups
- Expand the current volunteer program by increasing training requirements and recruitment efforts to reach other community volunteer groups
- Safely and effectively eliminate, divert or recover costs for paints collected through the program by implementing new policies and exploring new uses for recycled paints

## PROGRAM ORGANIZATION

### CITY OF TUCSON

Robert E. Walkup ..... Mayor

### Council Members

Regina Romero ..... Ward 1  
Paul Cunningham..... Ward 2  
Karin Uhlich ..... Ward 3  
Shirley C. Scott, Vice Mayor..... Ward 4  
Richard Fimbres ..... Ward 5  
Steve Kozachik ..... Ward 6

Mike Letcher ..... City Manager

### PIMA COUNTY

#### Board of Supervisors

Ann Day..... District 1  
Ramón Valadez, Chairman ..... District 2  
Sharon Bronson ..... District 3  
Raymond J. Carroll ..... District 4  
Richard Elías..... District 5

C.H. Huckelberry..... County Administrator

### STEERING COMMITTEE

Ann Marie Wolf, Chair  
Sonora Environmental Research Institute, Inc.

Paul Kramkowski, Vice Chair  
Raytheon, Environmental Health & Safety

Harold Maxwell  
Tucson Water

Andrew Quigley  
City of Tucson Environmental Services

Ken Roberts  
Pima County Facilities Management

Seth Ruskin  
Arizona Department of Public Safety

Walter Valencia  
Pima County Wastewater Management

### ADMINISTRATION

The Household Hazardous Waste Program is administered by the City of Tucson Environmental Services Department.

### Program Staff

Frank Bonillas..... Environmental Services Superintendent  
Bill Bendorf..... Environmental Services Supervisor  
Fernando Valencia..... Environmental Services Supervisor  
Don Campbell..... Equipment Operation Specialist  
Anthony Diaz ..... Environmental Services Equipment Operator  
James Foley ..... Senior Environmental Services Worker  
Eric Hart ..... Environmental Services Worker  
David Maxey..... Senior Environmental Services Worker  
Dennis Zygel..... Environmental Services Equipment Operator

### Support Staff - Los Reales Landfill ABOP

Angel Flores..... Senior Environmental Services Worker  
Daniel Lopez..... Environmental Services Worker

## ADDITIONAL INFORMATION

Additional information about the Household Hazardous Waste Program is available on the following web sites and phone lines:

United States Environmental Protection Agency  
[www.epa.gov](http://www.epa.gov)

Arizona Department of Environmental Quality  
[www.azdeq.gov](http://www.azdeq.gov)

Pima County Department of Environmental Quality  
[www.deq.pima.gov](http://www.deq.pima.gov)

City of Tucson  
[www.tucsonaz.gov/hhw](http://www.tucsonaz.gov/hhw)

Tucson Clean & Beautiful and Recycling Information Line  
[www.tucsonaz.gov/tcb](http://www.tucsonaz.gov/tcb)  
520-791-5000

Earth 911  
[www.earth911.com](http://www.earth911.com)  
1-877-EARTH911





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Tucson, AZ 85705-6921

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Environmental Services Department



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