

**Metro**  
**Regional Environmental**  
**Management**

***Household Hazardous***  
***Waste Program***

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**May 1999**

A Report by the Office of the Auditor



**METRO**

1999-10405-AUD

**Alexis Dow, CPA**  
**Metro Auditor**

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METRO

## Office of the Auditor

May 24, 1999

To the Metro Council and Executive Officer:

The accompanying report details our review of Metro's household hazardous waste program. In fiscal 1998 Metro processed about 2.3 million pounds of hazardous waste at a cost of approximately \$2.8 million; annual revenue was \$108,000.

Paint is a major component of the household hazardous waste that Metro collects. Currently, Metro recycles usable latex paint, then makes it available to governments and non-profit organizations at no cost. In early fiscal 2000 Metro expects to complete construction of a new latex paint recycling facility. Using this facility, Metro plans to recycle and sell more than 86,000 gallons of paint a year.

We recommend that Metro price this paint at market as a means of recovering more household hazardous waste program costs. At a minimum, Metro should increase their currently planned prices by about \$1 more per gallon to absorb the cost of depreciating the newly constructed latex paint facility. Also, Metro should aggressively market its recycled latex paint products to other governments.

We reviewed a draft of this report with the Executive Officer. The last section of this report presents his written response.

We sincerely appreciate the cooperation and assistance provided by Metro staff as we conducted this review, particularly the staff from the Regional Environmental Management department.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Alexis Dow'. The signature is fluid and cursive, with a long, sweeping tail that extends to the right.

Alexis Dow, CPA  
Metro Auditor

Auditor: Leo Kenyon, CPA

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## Executive Summary

Metro's household hazardous waste program processed about 2.3 million pounds of waste in fiscal 1998 and cost about \$2.8 million; annual revenue was \$108,000. Household hazardous waste is collected, processed and disposed of at Metro's transfer stations and collected at special collection events.

In 1997, consultants reported that Metro's hazardous waste program cost more than most of 24 similar programs reviewed, but is much more comprehensive than any of them – it is open more hours, accepts more types of waste and serves a more diverse range of customers. The consultants also found that its performance and efficiency levels generally met or exceeded other programs and any cost reductions would curtail services or reduce Metro's ability to meet program objectives. Lastly, they suggested Metro consider increasing its efforts to recycle latex paint as a way to reduce overall hazardous waste disposal costs.

Paint is a major part of the household hazardous waste that Metro receives. Metro recycles usable portions of latex paint, then makes it available to governments and non-profit organizations at no cost. Annual volumes of recycled paint have grown from 27,000 gallons in 1993 to over 84,000 gallons in 1998. Metro's recycling rate grew from about 38 to 73 percent during that period.

Metro expects to complete construction of a new latex paint recycling facility in early fiscal 2000. Using this facility, Metro plans to recycle and sell more than 86,000 gallons of paint a year. It expects to nearly recover the direct costs of operating this facility by selling the paint to the general public for \$3 a gallon and to non-profit organizations and governments for \$2 a gallon. A current projection anticipates sales will approximate \$191,000 and direct costs \$194,000.

We suggest that Metro price the paint at market as a means of recovering more household hazardous waste program costs. At a minimum, Metro should charge all customers about \$1 more per gallon to absorb the cost of depreciating the latex paint facility. A \$1 per gallon increase would generate about \$80,000.

Also, Metro should aggressively market its recycled latex paint products to other governments. Officials of several local governments expressed interest in buying good quality recycled paint from Metro for \$3 to \$4 per gallon.



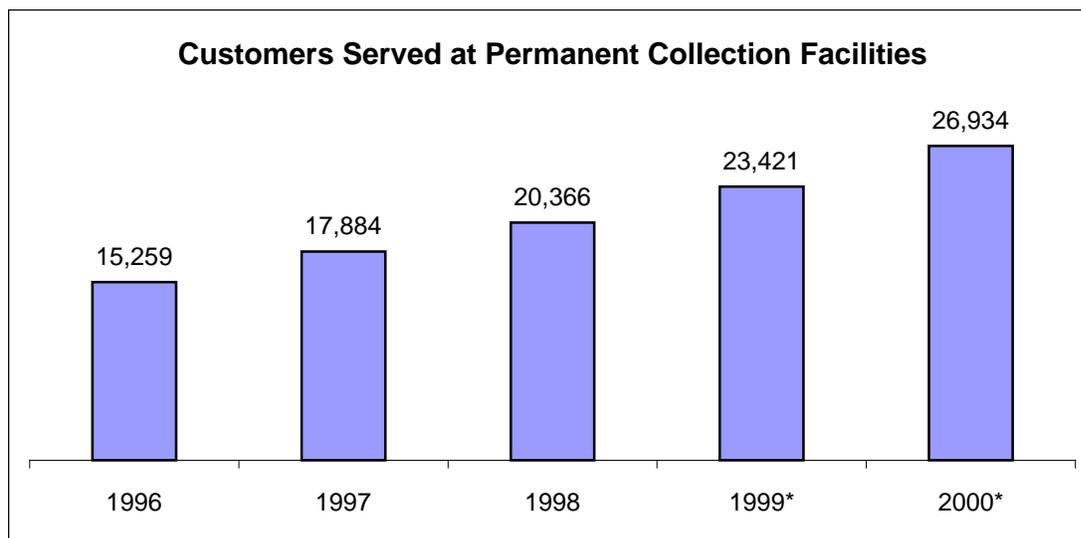
## Household Hazardous Waste Program

In fiscal 1998, Metro's household hazardous waste program included:

- two permanent collections facilities operating six days a week year-round.
- six full-scale and 15 neighborhood household hazardous waste collection events around the region.
- a latex paint collection and processing program.
- a collection program for hazardous waste from small businesses – CEGs (conditionally exempt generators).
- a load-checking program to identify and remove hazardous and other unacceptable waste from solid waste received at Metro's two transfer stations.
- an emergency response team equipped to respond to chemical releases at the transfer stations as well as test and dispose of illegally dumped hazardous waste.

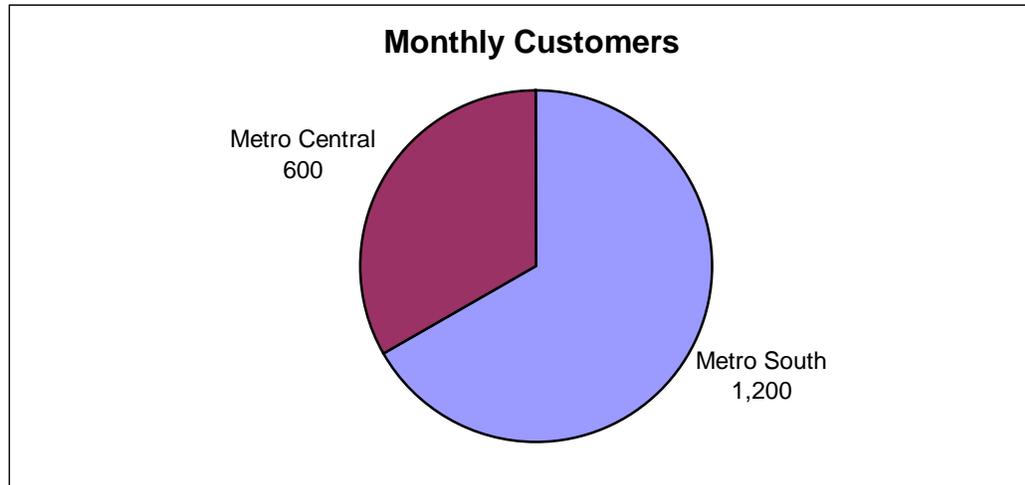
### Permanent Collection Facilities

The total number of household hazardous waste customers served at the two facilities has increased each year since fiscal 1996 as shown in the following graph:



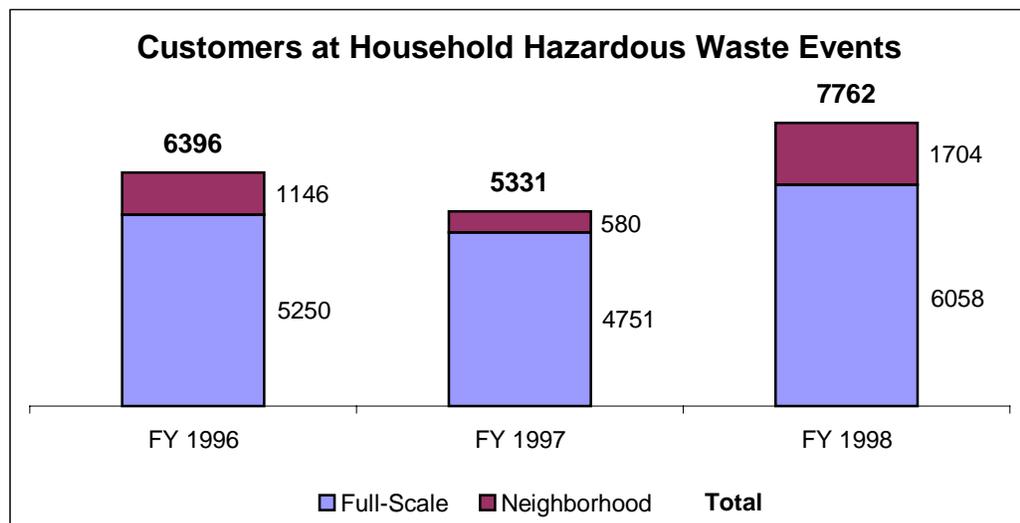
\* Projected

The fiscal 1999 household hazardous waste budget anticipates a staff of 20 full-time equivalent employees (FTEs) and more than \$150,000 for temporary employees at collection events. The full-time staff principally work at the two transfer station household hazardous waste facilities, which are staffed from 9 a.m. to 4 p.m., 6 days a week. Metro South accommodates about 1,200 drive-up household hazardous waste customers each month, and Metro Central accommodates about 600.

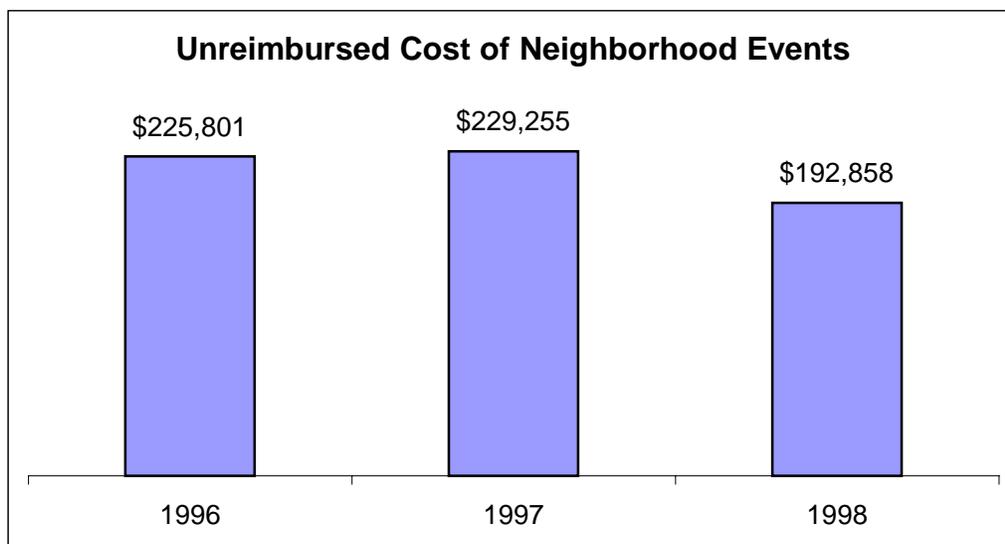


### Satellite Collection Events

Metro also served 7,762 customers at mobile household hazardous waste collection events during fiscal 1998 – 46 percent more than the prior fiscal year and 21 percent higher than the previous record-breaking year in fiscal 1996.



In fiscal 1998 Metro staff (supplemented with temporary employees) conducted six major satellite events serving up to 1,660 residents at a single location in one day. In addition, Metro also conducted 15 neighborhood events, each serving 17 to 200 customers. Metro officials reported that during fiscal years 1996, 1997, and 1998 these satellite events cost \$225,801, \$229,255, and \$192,858 respectively in direct personnel, material and service costs. Customers reimburse none of these costs.



### Latex Paint Recycling Program

All latex paint collected in Metro's household hazardous waste program—about 1,400 gallons a week—is brought to the Metro South transfer station for processing. This includes paint from both transfer station sites' household customers, all of the satellite collection events, CEGs and the load check program. The latex paint program has been operating since February 1992. By the end of 1998 approximately 334,000 gallons had been collected and over 183,000 gallons were processed for re-use. Currently, processed paint is given to non-profit organizations and local governments. A small amount is sold to contractors and homeowners. Metro's direct cost-per-gallon for recycled paint, including labor, material and disposal costs, is about \$3. Metro anticipates that the per-gallon direct processing costs will drop to under \$2 after the dedicated latex paint processing facility is completed.

## **CEG (Conditional Exempt Generator) Program**

Metro's household hazardous waste facilities at its transfer stations accept hazardous waste from small commercial generators who are classified as conditionally exempt under state and federal hazardous waste regulations. Under federal regulations, each CEG business can accumulate up to 2,200 pounds of hazardous material annually. Metro services 250 to 300 of these small businesses, charging these customers \$3 to \$13 per gallon to recover the direct cost of managing their hazardous waste.

## **Load-Check Program**

Household hazardous waste is to be segregated and handled separate from mixed solid waste. Household hazardous waste technicians monitor mixed solid waste received at Metro's transfer stations to identify hazardous and other unacceptable waste received as mixed waste. If the generator is identified, the waste is to be retrieved by the generator. If the generator is unable or unwilling to retrieve the waste or cannot be identified, the waste is brought to the household hazardous waste facilities for safe disposal. About 75 tons of household hazardous waste are removed from the trash coming into Metro's transfer stations each year.

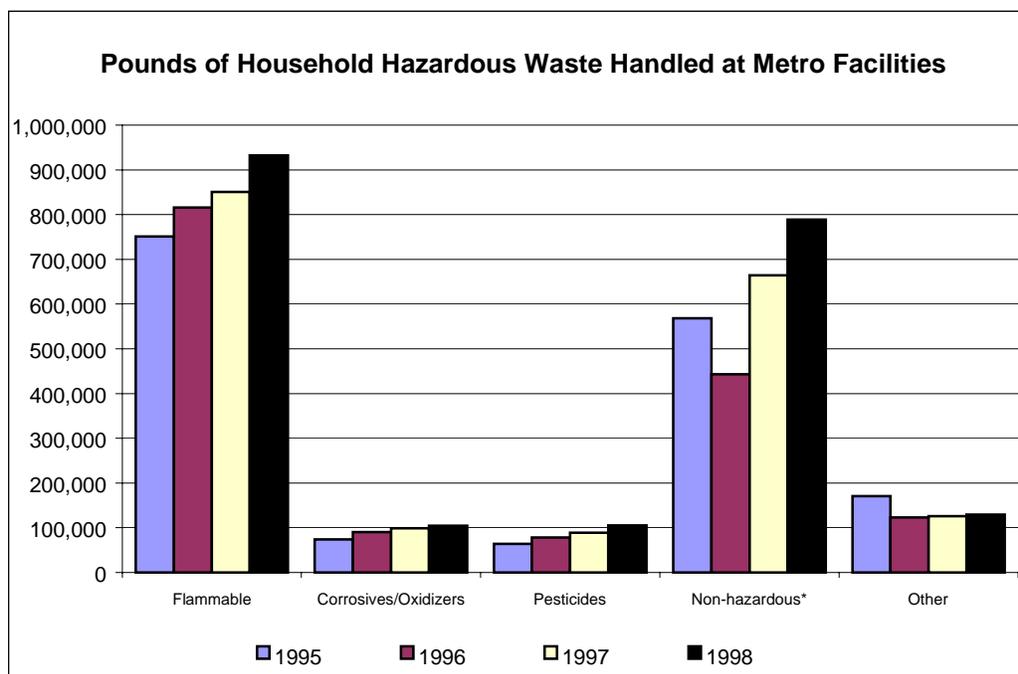
## **Other Programs**

The household hazardous waste program has several other smaller programs including:

- cleanup and processing of abandoned and illegally dumped hazardous waste.
- emergency response to hazardous waste releases at the two transfer stations.
- "Pass it On"—Metro's distribution of between 20,000 and 30,000 pounds of otherwise hazardous materials that are in good condition and still suitable for reuse in original form to qualified parties.
- an education and promotion program to inform the public about household hazardous waste.

## Pounds and Type of Household Hazardous Waste Handled

Metro accounts for the estimated weight (pounds) of household hazardous waste handled each calendar year. The following graph and table show the volume shipped from Metro's transfer stations for 1995 through 1998 by waste type and in total. These amounts exclude the volume of waste shipped directly from event sites.



\* Mainly latex paint

	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
	(Pounds of hazardous waste)			
Processed	1,627,146	1,552,920	1,829,671	2,060,034
Re-used in original form *	<u>21,760</u>	<u>23,407</u>	<u>25,207</u>	<u>47,351</u>
<b>Total handled</b>	<b><u>1,648,906</u></b>	<b><u>1,576,327</u></b>	<b><u>1,854,878</u></b>	<b><u>2,107,385</u></b>

\* Otherwise hazardous waste materials that are in good condition, still suitable for use, and donated to qualified parties.

## **Objectives, Scope and Methodology**

Our objectives were to independently:

- evaluate the costs, resources and liability of conducting neighborhood recovery events and operating the transfer stations' household hazardous waste operations.
- study how other governments manage household hazardous waste.
- recommend the best ways for Metro to address the continuing growth of household hazardous waste.

We did not assess the feasibility, costs, benefits and risks of privatizing household hazardous waste management and disposal. Information provided by a consulting firm 2 years ago showed Metro's costs comparable to those of 9 privately owned systems.

To address these audit objectives we:

- read documents related to the establishment and operation of the household hazardous waste program and facilities, the accomplishments of Metro in managing waste to date and Metro's plans for managing them in the future.
- studied Metro's financial and budget documentation related to the revenues and costs of operating this program.
- discussed this program with Metro personnel in the Regional Environmental Management Department, the General Counsel's office and the Administrative Services Department.
- conducted an extensive search of the Internet regarding the household hazardous waste programs of other governments.

This study was performed in accordance with generally accepted government auditing standards. Fieldwork was conducted between September 1998 and March 1999.

## Metro's Program Provides More Types of Customers with Better Services

Metro's household hazardous waste program is one of the most comprehensive in the nation, handling nearly 50 categories of household hazardous waste. It recycles some wastes, disposes of others as fuel for energy production, has some incinerated and landfills others. The program is, however, relatively expensive—costing nearly \$3 million annually over the past 3 years.

### Costs of Operating Metro's Household Hazardous Waste Program

The direct operating cost of Metro's household hazardous waste program for fiscal years 1996, 1997 and 1998, is shown in the following table. These amounts exclude capital expenditures and any offsetting revenues.

<b>1996</b>	\$2,935,592
<b>1997</b>	\$2,772,069
<b>1998</b>	\$2,834,512

### Consultants' Evaluation of Metro's Program Gives High Marks

Metro commissioned a study of its household hazardous waste program to assist in implementing an evaluation and tracking system which would provide management information and feedback to help Metro assure that its programs are designed and operated efficiently and cost-effectively. The consultants studied 1995 data and reported their findings to Metro in March 1997.

The consultants were asked to provide two key types of information:

- gather data and analyze similar programs regionally and across the nation for program designs and services, and identify potential measures for implementing a more comprehensive monitoring program to evaluate the performance of Metro programs.
- gather raw activity and cost data about these programs to calculate measures and ratios for comparison with current Metro performance in its hazardous waste operations.

The consultants reported that they surveyed the programs of 24 established and successful permanent programs serving 12 large communities with populations

greater than 500,000 and 12 serving communities with populations between 100,000 and 500,000. They also collected extensive secondary data on other community programs—100 in California and 37 in Washington State. The consultants reported that their sample targeted all the large, well-established programs in the country that were able to provide relevant program and budget information.

Of the 24 programs, hazardous waste companies operated 9 under contract and local government staffed the remaining 15. The consultants stated that their sample provided an opportunity to compare Metro with some of the most respected household hazardous waste programs in the country.

The consultants stated that Metro's program participation level compared well to the 12 large programs surveyed. Metro's program served 4.3% of the households in its service area annually while the other 12 programs served an average of 3.6%. They further stated that Metro's high participation levels were "...especially impressive in light of the fact that Metro is *the only program* with a user fee for households. All other programs in the sample provide free service to household users." Seattle stopped charging user fees because the city was concerned that the fee was a deterrent and did not come close to covering program costs.

The consultants concluded that:

- The program's performance and efficiency compared favorably with nationwide "leader" programs and other similar programs throughout the country.
- Metro served more types of customers with better services than other programs. For example, Metro:
  - serves CEGs (only one-fourth of the programs surveyed did this).
  - performs broader services—equivalent to the highest one-sixth of other programs—and its staff is more highly trained than the others.
  - collects more types of waste than most other programs.
  - is open more than twice as many hours per week and days per year as other programs.
- The more comprehensive nature of Metro's hazardous waste program results in higher collection costs per pound and per customer than the average for 24 other surveyed programs.
- Metro collects greater quantities of more expensive, non-vehicle wastes—those that tend to be more expensive to collect, manage and treat or discard.

- Metro ranked average for reclamation of hazardous materials, emphasizing reuse and reclamation, and avoiding ultimate disposal of such waste.

The consultants made several recommendations including:

- enhancing Metro's already strong monitoring of hazardous waste by implementing measures of customer satisfaction as determined through periodic surveys.
- focusing on managing, not necessarily reducing, hazardous waste program costs since Metro's higher costs seem closely linked to its high quality, comprehensive service package and mix of waste handled. Over time, Metro may want to try improving its cost efficiency by working to increase reclamation of paint (thereby reducing associated disposal costs).

### **Metro's Response to Consultants' Study**

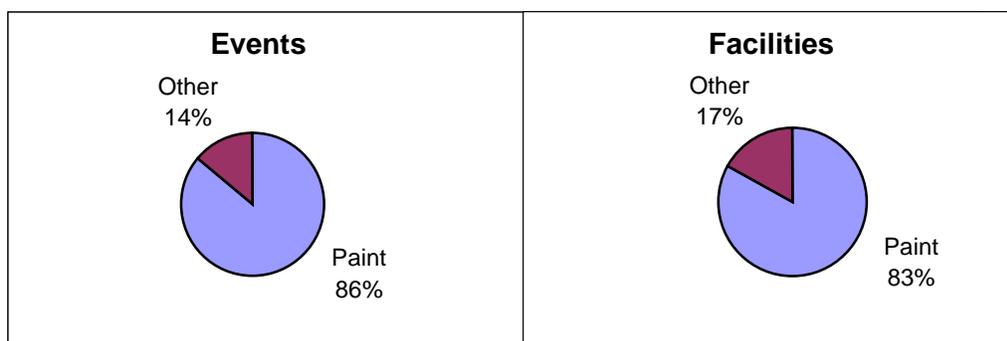
Consistent with the study's recommendations, Metro conducted three customer surveys in the spring and summer of 1998; increased its cost efficiency and significantly increased reclamation of paint.

#### Stakeholder Survey

Metro's survey of stakeholders asked for their views on existing and alternative approaches to managing household hazardous waste and CEG wastes. Those surveyed provided a number of different responses regarding measures to (1) reduce the demand for hazardous waste management services and (2) provide such services. Metro concluded that there was strong support for education and an interest in participating in additional and alternative services.

#### Intercept Survey

The intercept survey was conducted at both transfer stations and one event. A total of 534 interviews were done—217 at the Washington Square event, 196 at Metro South and 121 at Metro Central. Most patrons at both the event (86%) and the facilities (83%) were bringing paint for disposal.



The respondents generally expressed high satisfaction with the services provided. Those interviewed at the event said they preferred the events, while those interviewed at facilities said they preferred the facilities. Convenient location is the primary reason respondents preferred events. Eliminating the fee at the facilities was cited as an incentive to use them more.

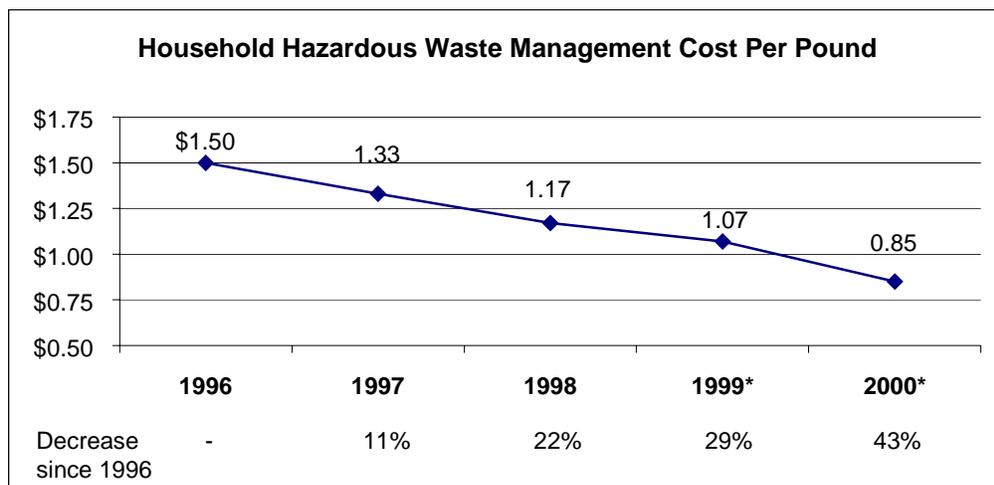
### Telephone Survey

A contractor conducted a random telephone survey of 657 residents of single family homes throughout Multnomah, Clackamas and Washington Counties—a sample that generally reflected the proportion of residents as listed in Metro tax records. Principle findings of the survey were:

- about half of those contacted had disposed of hazardous waste at a Metro facility within the past five years.
- the greatest barrier to use of Metro facilities is distance—about one half of the respondents would be much more likely to use Metro facilities if there were a drop site closer to their home.
- small fees (\$5) do not seem to have a significant negative effect on Metro facility use, but an increase to a \$10 fee would negatively impact their use.

### Increased Cost Efficiency

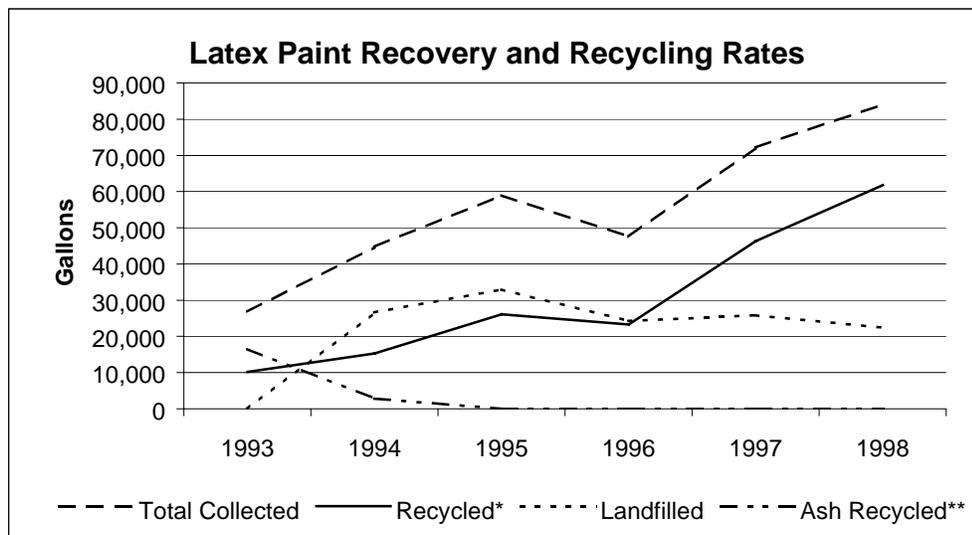
The cost of operating Metro's household hazardous waste program remained fairly constant during fiscal 1996 through 1998 and is expected to remain at those levels in fiscal 1999 and 2000. The pounds of waste processed, however, have increased substantially. As a result, direct costs per pound decreased by about 22 percent between fiscal years 1996 and 1998. Staff project those costs will continue to decrease an additional 20 percentage points by fiscal 2000.



\* Projected

### Metro Is Significantly Increasing Reclamation of Latex Paint

Metro has been recovering and recycling latex paint for several years and in increasing volume as demonstrated in the following graph:



\* Distributed to the community for use as paint.

\*\* Waste paint sent to an incinerator where the ash is used in a new paint product.

Metro's disposal contract with Oregon Waste System does not permit discarding liquid latex paint in that company's landfill. Instead, liquid latex paint must be recovered, recycled or, if it is not salvageable, must be shipped to another contractor for solidification and landfilling. This costs Metro approximately \$2.90 per gallon. Consultants hired by Metro to study its solid waste program recommended increasing reclamation of latex paint as a way to mitigate the cost of its extensive and highly successful hazardous waste program. The next chapter addresses this recommendation.

### **Liability for Damages Caused by Program Are Remote**

Some additional risk and increased liability at the hazardous waste collection events exists primarily because of the high level of activity due to large numbers of customers, Metro staff and temporary employees. Metro has had no instances of contamination or serious injury at these events. Some minor injuries such as sprains have occurred, but Metro has never paid any damages.

Metro's Risk Management officials told us that the household hazardous waste facilities have had no claims for damages caused by spills, contamination or serious injury. The garbage weighing and dumping side of the transfer station has had some instances where public and station personnel were affected by household hazardous waste accidents resulting from customers dumping hazardous materials as non-hazardous garbage.

Metro's Senior Assistant General Counsels and Risk Management officials told us that temporary employees at the events are Metro employees and, like the full-time household hazardous waste staff, are covered under workmen's compensation. Contract personnel that operate the latex paint facility are covered by workmen's compensation through their organization. All Metro officials consulted said there are always risks, but the controls Metro has in place to manage the household hazardous waste operations are sound, and they believe the risks are minimal.

## **Metro Could Recover More Costs by Increasing Prices for Recycled Latex Paint**

A major cost component of Metro's household hazardous waste program has been collecting, processing and recycling latex paint. Metro has been giving away this recycled paint to non-profit and government agencies. Metro now plans to sell the paint to the former recipients and to private buyers at prices intended to recover most labor and material costs of recycling the paint – approximately \$2 to \$3 per gallon. We believe Metro should try to sell the paint at market. At a minimum, Metro should recover about \$1 more per gallon to fully recover the capital costs of its new paint processing facility.

### **Paint: Largest Component in Household Hazardous Waste Program**

By volume, paint is the largest component of waste brought into household hazardous waste collection programs at Metro and nationally. The two major types of paint are oil-based and water-based. Oil-based paints typically use a petro-chemical product as a solvent, whereas latex uses water as a solvent. Oil-based paints are hazardous materials.

Paint manufactured before 1990 sometimes contained hazardous substances like lead and mercury. Latex paint manufactured after that time, however, is generally not considered a hazardous waste according to the procedures and protocol listed in the U.S. Environmental Protection Agency documentation. Many household hazardous waste programs across the country instruct owners of such paint to simply dry it out and discard it in garbage cans. However, latex paint is considered a hazardous waste in California and must be discarded in a Class I "hazardous" landfill unless it is reused or recycled. Many other state and local jurisdictions also treat it as a hazardous waste.

Because latex paint may adversely affect human health and the environment or create a public nuisance, it should be managed. A responsible way to manage unwanted latex paint is through a community collection program. Once collected, latex paint may be:

- exchanged in "drop and swap" programs that allow customers to receive it for touch-up and building maintenance "as is" and free of charge.
- bulked for use not requiring commercial quality paint or specific color choices such as coverage of graffiti or frequently painted public buildings.
- remanufactured or recycled into consistent paint that meets manufacturer's specifications for color, content and performance.

## Remanufactured or Recycled Paint Programs

Latex paint is remanufactured or recycled in a variety of ways throughout the country. Some government jurisdictions collect paint at household hazardous waste events or at waste transfer stations, then provide it to paint companies who reprocess it into useable paint. Other governments instruct paint owners to take their waste paint directly to local paint companies who recycle it. This paint may then be resold to the public or back to the jurisdictions for resale, donation to non-profit organizations or covering graffiti. For example:

- Atlantic County, New Jersey, has collected paint one day a month since 1994. It contracts with a vendor who recycles the latex paint and disposes of the oil-based paint. Atlantic County then takes back the recycled paint, and sells it to the public for \$8 per gallon.
- the State of Ohio advertised a central contract for recycled paint and related contracts in 1998. One vendor offered to sell up to 20,000 gallons per month for \$15-17 per gallon.
- a company in California collected unused latex paint, recycled it and sold it worldwide to U.S. government projects and to the public, charging about \$5-\$6 per gallon.
- another company in Massachusetts collected unused latex paint, recycled it and sold it for about \$10 per gallon.

## Governments Encourage Use of Recycled Paint

### Federal Government

The November 13, 1997 Federal Register announced that the federal Environment Protection Agency was amending the federal government's Comprehensive Procurement Guideline to designate new items that are or can be made with recovered materials. Reprocessed latex paint was added for use in "...interior and exterior architectural applications." Under this designation, procuring agencies must purchase reprocessed latex paint if it is available and meets the needs of the agencies.

The federal General Services Administration, which sells materials to federal government customers, offers recycled latex paint containing a minimum of 50 percent post-consumer waste. A number of colors are available at prices ranging from \$6 to \$10 per gallon.

### State of California

California requires agencies to buy recycled paint. The Public Contract Code (Section 12170 (a)) states that "Fitness and quality being equal, all state agencies

shall purchase the following recycled products, instead of non-recycled products, whenever the recycled products are available at the same cost, or at a lower cost, than the total costs of the non-recycled products... (4) (A) Recycled paint..”

Recycled paint, by definition, has a recycled content of at least 50 percent post-consumer paint. If paint of this content is unavailable, the state agency may substitute paint with not less than 10 percent post-consumer content.

California’s Department of General Services has awarded contracts to two private vendors for recycled latex paint. This paint is now available to state agencies, local governments and special districts in numerous grades and colors. The contracts, one for northern California and the other for southern California, offer the paint for less than \$7 per gallon.

California has established a goal that at least 50 percent of state purchases by January 1, 2000 will be recycled products.

#### State of Oregon

The State of Oregon encourages use of recycled materials in Oregon Revised Statutes 279. For example, the statutes stipulate it is the state’s policy and intent to procure products made from recycled materials and the recycling of waste materials. The statutes go on to require that a state or public agency give preference to materials and supplies that are manufactured from recycled materials if the recycled product:

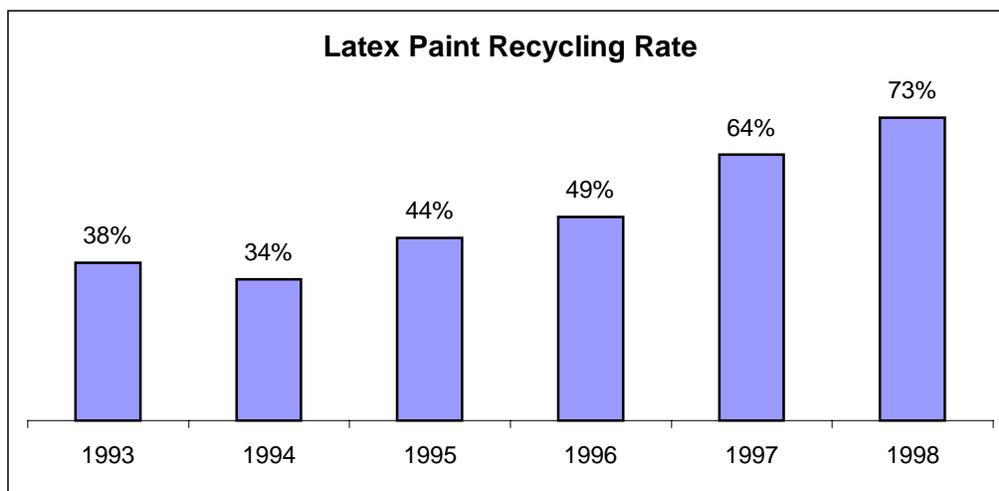
- is available.
- meets applicable standards.
- can be substituted for a comparable non-recycled product.
- costs do not exceed the costs of non-recycled products by more than five percent.

State of Oregon purchase regulations reiterate these statements by specifying that the state’s Administrative Division “...will make recycled products and materials available to state agencies whenever they can be obtained.”

We asked an official of the Administrative Services Department’s Purchasing Division if they acquired recycled latex paint for use by state agencies and were told that the division did not. The department’s Facilities Division handles most of these purchases. We then asked an official of that division if they acquired recycled latex paint for use in painting state facilities and were told no. Painters in that division purchase paint on the open market and are not instructed to buy recycled paint.

## Metro's Plan for Recycling Latex Paint

Between 1991 and 1993, Metro gave waste paint to a paint company for recycling. The recycled paint was good but did not meet federal standards, and the company dropped out of the program. Metro continued collecting and bulking the paint into nine varieties, based on color and exterior or interior. In 1993, Metro recycled about 38 percent of the latex paint it received. By 1998, that had improved to about 73 percent. Metro's Hazardous Waste Program Supervisor projects recycling will increase to 75 percent in 2000.



Almost all of this recycled paint has been given to non-profit organizations and local governments. However, in the last 6 months of calendar year 1998, Metro sold about \$6,000 of recycled paint to commercial customers at \$1 per gallon.

Metro is embarking on a new program for collecting more latex paint, recycling it and selling it to thrift organizations, local governments and the general public. It expects to finish a new, dedicated latex paint processing building at the Metro South Transfer Station site in June 1999. The estimated total cost of the facility is about \$761,300. This includes \$111,000 for fourteen mixing tanks with accessories, 14 pneumatic mixers, solidification pans to treat unusable paint, and other equipment.

Estimated annual direct costs of processing latex paint in the new building are:

Labor	\$154,824
Materials	26,804
Disposal (unusable paint)	<u>12,436</u>
Total	<u>\$194,064</u>

This estimate assumes that Metro will collect 115,470 gallons and recycle 75 percent (86,602 gallons). The remaining, unusable paint would be mixed with absorbent materials, dried and discarded. Labor costs include salary and fringe benefits for a Metro household hazardous waste technician and labor charges for employees of a thrift organization contractor.

### **Metro's Expectations for Selling Its Recycled Paint**

Metro's household hazardous waste program supervisor estimated the anticipated revenue from selling the paint. He assumed that 80 percent of the recycled paint would be sold to non-profits and government agencies and 20 percent would be sold to the public. He further assumed that paint would be sold to non-profits and governments for \$8 per 4-gallon bucket (\$2 per gallon) and to the public for \$12 per bucket (\$3 per gallon). Using these numbers, he estimates that sales could generate gross receipts of about \$190,500.

A consultant tested Metro's recycled paint for performance a few years ago and found that the recycled paint was of good quality and equivalent to a medium grade commercial paint. Currently Metro staff does not intend to warrant that the paint meets standards such as those prescribed by the federal General Services Administration. If it is necessary to meet government standards to sell the paint, Metro will have to determine which standards to meet and how to do it. Metro is hoping to avoid the cost associated with such measures. If steps such as adding virgin paint are necessary to meet standards, Metro believes it could still maintain a relatively low price and maintain marketability.

### **Metro Should Recover Additional Costs**

Metro's February 1999 "State of the Plan Report" states, "Because the minimum handling and processing fees at the hazardous waste facilities cover only a small portion of the actual costs of services, Metro needs to plan for alternative funding sources for household hazardous waste collection services..." We also believe this is necessary.

Selling recycled paint provides Metro an opportunity to recover more of the costs of collecting and managing household hazardous waste. Therefore, we suggest that Metro consider pricing the paint at market for paint of similar quality and characteristics. As a minimum, we believe Metro should charge approximately \$1 more per gallon for the recycled latex paint to recover the paint facility depreciation in addition to direct labor, material and disposal costs.

Since the paint facility is a stand-alone, discrete facility whose capital costs are identified, it is appropriate to recover its cost from the sales of paint. Metro officials told us they estimate the various components of the new paint facility will have useful lives ranging between 5 and 20 years. They estimate the total amortization expense for the facility would approximate \$80,000 annually.

Recovering these depreciation costs would add about \$1 per gallon to the costs of the recycled paint, based on the estimated volume included in Metro's calculations. The total price per gallon (\$3 for governments and non-profit organizations and \$4 for the general public) would still be less than the prices charged by the other sellers of recycled paint identified in our review.

### **Potential Customers for Metro's Latex Paint Recovery Program**

We asked purchasing officials at Clackamas County, Washington County and the City of Portland how their jurisdictions purchased latex paint. The officials told us that they follow the purchasing requirements contained in ORS 279. None of them, however, require their jurisdictions or their contractors to buy recycled paint. Instead:

- Washington County buys paint from a local outlet of a large private company. They then provide it to their painting contractors or to their own work force.
- Clackamas County buys painting contractor services and allows the contractors to purchase the paint and apply it. They do not specify brand names, only that it be good quality.
- City of Portland follows practices similar to Clackamas County.

We asked the officials from these jurisdictions whether they would be interested in purchasing Metro's recycled paint, available in a variety of colors, at a price ranging between \$3 and \$4 per gallon.

The official from Washington County said that he was very interested at that price, but would like more information on the quality and availability. He requested that Metro staff provide him more information when it begins producing the recycled paint at the new facility.

The official from the City of Portland also said she was interested in the paint if it is good quality. She said that the City could revise their bid specifications requiring their painting contractors use the recycled paint. She also asked that we have Metro staff provide her with more details when they begin producing the paint at the new facility.

The official from Clackamas County said that if the paint is available at that price and meets their specifications, he would be very interested and would direct painting contractors to that source. He also requested that Metro staff provide him with more details.

## Conclusions and Recommendations

Although latex paint is not technically a household hazardous waste, it is the largest category of disposed waste in household hazardous waste collection programs. It should be managed as a household hazardous waste because it may adversely affect human health and the environment or create a public nuisance. Some government jurisdictions recommend simply drying it out and dumping it into landfills. Others collect and bulk it, then give it to other governments or non-profit organizations. Still others contract with paint companies to remanufacture or recycle it to commercial standards and sell it to the public or back to the jurisdictions for resale or other use.

Over the last few years, Metro has bulked almost all of the paint it has collected and given it to non-profit organizations or local governments. With completion of a new paint facility at Metro South, Metro intends to begin selling the paint to governments, non-profits and the general public. The prices Metro intends to charge are sufficient to recover almost all of the direct labor, material and disposal costs of operating the facility.

Selling recycled paint provides Metro an opportunity to recover more of the costs of collecting and managing household hazardous waste. Accordingly, we recommend Metro consider pricing the paint at market for paint of similar quality and characteristics. As a minimum, Metro should charge an additional amount (we estimate about \$1 per gallon) to recover paint facility depreciation – a total of about \$80,000 in fiscal 2000. The total price per gallon for this paint would then be in the range of \$3 to \$4 per gallon.

Purchasing officials at Clackamas and Washington Counties, the City of Portland and the State of Oregon told us they follow the purchasing requirements in ORS 279 which allows purchasing recycled paint, but none have done it. The County and City officials said they would be very interested in purchasing latex paint at \$3 to \$4 per gallon if it was good quality, met their specifications and was readily available. State officials were not as committal.

## **Response to the Report**

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METRO

**TO:** Alexis Dow, CPA, Metro Auditor  
**FROM:** Mike Burton, Executive Officer *Mike Burton*  
**DATE:** May 21, 1999  
**RE:** Response to Report on Household Hazardous Waste Program

Thank you for the opportunity to review and comment on your review of the household hazardous waste program administered by the Regional Environmental Management department. Overall, I am in general agreement with your findings, conclusions and recommendations. Below are my responses to your two recommendations concerning the sale of recycled latex paint.

**Recommendation: We suggest that Metro price the paint at market as a means of recovering more Household Hazardous Waste Program costs. At a minimum, Metro should charge all customers about \$1 more per gallon to absorb the cost of depreciating the latex paint facility.**

Response: I concur with your recommendation that depreciation is a cost that appropriately should be factored into the pricing of recycled paint once it can be sold in smaller containers.

Action Plan: Because the sale of recycled paint serves other important public policy objectives, it may not be consistent to price the paint at market in all cases. For example, Metro recycled paint is used by some organizations and individuals to clean up neighborhoods and to help low-income and elderly homeowners to improve their living conditions. A market price for those organizations and individuals may hamper their ability to continue at the same level those important community services. Accordingly, I will direct REM to determine whether it would be prudent to establish differential prices for recycled paint for different customers (e.g., general public vs. non-profit groups) with a goal of increasing our revenues to the level you have recommended. In addition, I will direct REM to review and report back to me on the appropriateness of its latex paint price(s) after nine months of actual sales.

**Recommendation: Also, Metro should aggressively market its recycled latex paint products to other governments.**

Response: I concur with your recommendation.

Action Plan: I will direct REM to prepare and provide information within the next 3 months to other governments within the region to promote sales of recycled latex paint. Further, I will ask the Department to explore the feasibility and utility of entering into intergovernmental agreements for the sale of recycled paint. I intend to start these discussions with city and county managers at their next available meeting date.

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# Metro Auditor Report Evaluation Form

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Your feedback helps us do a better job. If you would please take a few minutes to fill out the following information for us, it will help us assess and improve our work.



**Name of Audit Report:** \_\_\_\_\_

Please rate the following elements of this report by checking the appropriate box.

	<b>Too Little</b>	<b>Just Right</b>	<b>Too Much</b>
Background Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Details	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity of Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential Impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Suggestions for our report format: \_\_\_\_\_  
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Suggestions for future studies: \_\_\_\_\_  
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Other comments, ideas, thoughts: \_\_\_\_\_  
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\_\_\_\_\_

Name (optional): \_\_\_\_\_

**Thanks for taking the time to help us.**

Fax: 503.797.1831  
Mail: Metro Auditor, 600 NE Grand Avenue, Portland, OR 97232-2736  
Call: Alexis Dow, CPA, Metro Auditor, 503.797.1891  
Email: [dowa@metro.dst.or.us](mailto:dowa@metro.dst.or.us)