

BEFORE THE METRO COUNCIL

AN ORDINANCE AMENDING ORDINANCE NO.)
92-449B REVISING THE FY 1992-93 BUDGET)
AND APPROPRIATIONS SCHEDULE FOR THE)
PURPOSE OF FUNDING INCREASES IN THE)
SOLID WASTE REVENUE FUND OPERATING)
ACCOUNT)

ORDINANCE NO. 93-474

Introduced by Rena Cusma,
Executive Officer

WHEREAS, The Metro Council has reviewed and considered the need to transfer appropriations within the FY 1992-93 Budget; and

WHEREAS, The need for a transfer of appropriation has been justified; and

WHEREAS, Adequate funds exist for other identified needs; now, therefore,

THE METRO COUNCIL HEREBY ORDAINS:

1. That Ordinance No. 92-449B, Exhibit B, FY 1992-93 Budget, and Exhibit C, Schedule of Appropriations, are hereby amended as shown in the column titled "Revision" of Exhibits A and B to this Ordinance transferring \$145,717 from the Solid Waste Revenue Fund Contingency to the Operating Account, Operations Division and adding 12.0 FTE Hazardous Waste Technicians and 1.0 FTE Hazardous Waste Specialist.

2. This Ordinance being necessary for the immediate preservation of the public health, safety and welfare, an emergency is declared to exist, and this Ordinance takes effect upon passage.

ADOPTED by the Metro Council this _____ day of _____, 1993.

Jim Gardner, Presiding Officer

ATTEST:

Clerk of the Council

Exhibit A
Ordinance No. 92-474

FISCAL YEAR 1992-93		CURRENT BUDGET		REVISION		PROPOSED BUDGET	
ACCT #	DESCRIPTION	FTE	AMOUNT	FTE	AMOUNT	FTE	AMOUNT
SOLID WASTE REVENUE FUND: Operating Account (Operations)							
<u>Personal Services</u>							
511121	SALARIES-REGULAR EMPLOYEES (full time)						
	Facilities Superintendent	1.00	55,620		0	1.00	55,620
	Sr. Solid Waste Planner	1.00	47,508		0	1.00	47,508
	Assoc. Management Analyst	1.00	39,081		0	1.00	39,081
	Facilities Mgmt Project Coordinator	3.00	110,190		(5,000)	3.00	105,190
	Hazardous Waste Specialist	4.00	128,540	1.00	22,803	5.00	151,343
	Site Manager II	1.00	37,548		0	1.00	37,548
	Site Manager I	2.00	65,877		(1,000)	2.00	64,877
511221	WAGES-REGULAR EMPLOYEES (full time)				0		
	Hazardous Waste Technician	5.00	139,453	12.00	182,959	17.00	322,412
	Scalehouse Technician	14.00	308,476		(8,285)	14.00	300,191
511225	WAGES-REGULAR EMPLOYEES (part time)				0		
	Scalehouse Technician	3.65	75,906	(1.50)	(28,570)	2.15	47,336
511231	WAGES-TEMPORARY EMPLOYEES (full time)				0		
	Security Guards	2.00	34,220	(2.00)	(34,220)	0.00	0
	Hazardous Waste Temporaries		0	1.00	28,233	1.00	28,233
511400	OVERTIME		53,500		9,000		62,500
512000	FRINGE		438,368		54,189		492,557
Total Personal Services		37.65	1,534,287	10.50	220,109	48.15	1,754,396
<u>Materials & Services</u>							
521100	Office Supplies		15,361		0		15,361
521110	Computer Software		8,000		0		8,000
521220	Custodial Supplies		1,804		0		1,804
521260	Printing Supplies		7,401		0		7,401
521290	Other Supplies		10,050		86,208		96,258
521400	Fuels & Lubricants		5,500		0		5,500
521530	Maintenance & Repairs Supplies-Vehicles		2,500		0		2,500
521540	Maintenance & Repairs Supplies-Equipment		114,300		0		114,300
523900	Freight In		1,900		0		1,900
524130	Promotion/Public Relations		13,900		0		13,900
524190	Misc. Professional Services		606,467		0		606,467
524210	Data Processing Services		55,000		0		55,000
525110	Utilities-Electricity		27,000		0		27,000
525120	Utilities-Water & Sewer		48,000		0		48,000
525610	Maintenance & Repairs Services-Building		18,000		0		18,000
525620	Maintenance & Repairs Services-Grounds		2,000		0		2,000
525630	Maintenance & Repairs Services-Vehicles		2,500		0		2,500
525640	Maintenance & Repairs Services-Equipment		150,250		0		150,250
525710	Equipment Rental		4,100		0		4,100
525733	Operating Lease Payments-Other		120,000		0		120,000
526200	Ads & Legal Notices		4,580		0		4,580
526310	Printing Services		35,700		0		35,700
526410	Telephone		37,540		0		37,540
526420	Postage		1,000		0		1,000
526500	Travel		12,725		0		12,725
526610	Disposal Operations		7,684,159		0		7,684,159
526611	Disposal Operations-Transportation		10,858,637		0		10,858,637
526612	Disposal Operations-Landfill Disposal		18,837,873		0		18,837,873
526613	Disposal Operations-Hazardous Material		1,170,000		(195,600)		974,400
526800	Training, Tuition, Conferences		51,205		10,000		61,205
526910	Uniform Supply & Cleaning Services		49,000		25,000		74,000
528100	License, Permits, Payments to Other Agencies		20,875		0		20,875
Total Materials & Services			39,977,327		(74,392)		39,902,935
TOTAL EXPENDITURES		37.65	41,511,614	10.50	145,717	48.15	41,657,331

Exhibit A
Ordinance No. 92-474

FISCAL YEAR 1992-93		CURRENT BUDGET		REVISION		PROPOSED BUDGET	
ACCT #	DESCRIPTION	FTE	AMOUNT	FTE	AMOUNT	FTE	AMOUNT
SOLID WASTE REVENUE FUND:General Expenses							
Total Interfund Transfers			4,792,924		0		4,792,924
599999	Contingency		5,761,340		(145,717)		5,615,623
599990	Unappropriated Fund Balance		7,884,666		0		7,884,666
Total Contingency and Unapprop. Balance			13,646,006		(145,717)		13,500,289
TOTAL REVENUE FUND EXPENDITURES		90.20	90,812,850	10.50	0	100.70	90,812,850

Exhibit B
Schedule of Appropriations
Ordinance No. 92-474

	Current Appropriation	Revision	Proposed Appropriation
SOLID WASTE REVENUE FUND			
Administration			
Personal Services	\$460,937	\$0	\$460,937
Materials & Services	\$98,709	\$0	\$98,709
Subtotal	\$559,646	\$0	\$559,646
Budget and Finance			
Personal Services	\$412,392	\$0	\$412,392
Materials & Services	\$1,079,368	\$0	\$1,079,368
Subtotal	\$1,491,760	\$0	\$1,491,760
Operations			
Personal Services	\$1,534,287	\$220,109	\$1,754,396
Materials & Services	\$39,977,327	(\$74,392)	\$39,902,935
Subtotal	\$41,511,614	\$145,717	\$41,657,331
Engineering & Analysis			
Personal Services	\$654,317	\$0	\$654,317
Materials & Services	\$163,075	\$0	\$163,075
Subtotal	\$817,392	\$0	\$817,392
Waste Reduction			
Personal Services	\$526,503	\$0	\$526,503
Materials & Services	\$1,615,848	\$0	\$1,615,848
Subtotal	\$2,142,351	\$0	\$2,142,351
Planning			
Personal Services	\$328,312	\$0	\$328,312
Materials & Services	\$497,563	\$0	\$497,563
Subtotal	\$825,875	\$0	\$825,875
Recycling Information and Education			
Personal Services	\$311,823	\$0	\$311,823
Materials & Services	\$232,700	\$0	\$232,700
Subtotal	\$544,523	\$0	\$544,523
Debt Service Account			
Debt Service	\$2,754,458	\$0	\$2,754,458
Subtotal	\$2,754,458	\$0	\$2,754,458
Landfill Closure Account			
Materials & Services	\$16,210,481	\$0	\$16,210,481
Subtotal	\$16,210,481	\$0	\$16,210,481

**Exhibit B
Schedule of Appropriations
Ordinance No. 92-474**

	Current Appropriation	Revision	Proposed Appropriation
SOLID WASTE REVENUE FUND (continued)			
Construction Account			
Capital Outlay	\$1,090,000	\$0	\$1,090,000
Subtotal	\$1,090,000	\$0	\$1,090,000
Renewal and Replacement Account			
Capital Outlay	\$540,000	\$0	\$540,000
Subtotal	\$540,000	\$0	\$540,000
General Account			
Capital Outlay	\$1,051,603	\$0	\$1,051,603
Subtotal	\$1,051,603	\$0	\$1,051,603
Master Project Account			
Debt Service	\$2,834,217	\$0	\$2,834,217
Subtotal	\$2,834,217	\$0	\$2,834,217
General Expenses			
Interfund Transfers	\$4,792,924	\$0	\$4,792,924
Contingency	\$5,761,340	(\$145,717)	\$5,615,623
Subtotal	\$10,554,264	(\$145,717)	\$10,408,547
Unappropriated Balance	\$7,884,666	\$0	\$7,884,666
Total Solid Waste Revenue Fund Requirements	\$90,812,850	\$0	\$90,812,850

All Other Appropriations Remains As Previously Adopted

STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 92-474 FOR THE PURPOSE OF AMENDING ORDINANCE NO. 92-449 REVISING THE FY 1992-93 BUDGET AND APPROPRIATION SCHEDULE FOR THE PURPOSE OF FUNDING INCREASES IN THE SOLID WASTE REVENUE FUND OPERATING ACCOUNT.

Date: December 1, 1992

Presented by: Sam Chandler

BACKGROUND AND ANALYSIS

The Metro Household Hazardous Waste Collection Facility has served over 9,000 customers since it opened. Last May, when it became clear that usage at the facility would far exceed original estimates, staff informed the Council Solid Waste Committee that if usage remained at these levels, a budget amendment for additional staff would be necessary. In subsequent updates and presentations before Council, staff outlined new waste management techniques, recycling efforts and cost-cutting measures in detail, again noting the need for additional funding if usage trends continued.

Projections made during the facility planning process assumed the facility would receive materials from 50 Metro area residents week. An unexpected and consistently high number of users, slightly more than **200 residents per week**, has resulted in significantly greater quantities of materials to be disposed. In addition, more of the waste received requires special, labor-intensive processing than had been anticipated.

The Hazardous Waste Program encompasses a great deal more than operations at the fixed facility alone. Hazardous waste technicians are also assigned to perform load checks at the transfer stations, process and dispose of orphan hazardous waste, freon collection in compliance with Clean Air Act rules, and environmental compliance monitoring during closure of the St. Johns Landfill. Additionally, the Hazardous Waste Program involves providing hazardous waste processing and disposal for the Washington Park Zoo and planning for and conducting satellite collection events for areas of the region that are not conveniently served by fixed facilities.

After maximizing operational efficiencies and cutting disposal costs at the Metro South facility, it is now evident that the program requires additional funding. Staff has conducted a thorough analysis (see Attachment 2) of possible remedies. Two options are summarized below; and a breakdown of appropriation transfers associated with each are outlined in Attachment 1.

Option #1

Option #1 involves a transfer from contingency to Materials and Services for additional disposal costs and supplies to maintain minimum operations at both Household Hazardous Waste facilities and to reimburse the Operations Division budget for extra expenditures incurred to-date for temporary employees.

Additional appropriations required	
Disposal	646,197
Supplies	50,000
Temporary Services	31,339
Total	\$727,536

Savings in current budget that will offset anticipated costs	
St. Johns Landfill security	(47,908)
Scalehouse	(40,000)
Misc. Personal Services	(20,000)
Total	(\$107,908)

Total amount needed from contingency for the remainder of FY 1992-93: **\$619,628**

Option 2

Option #2 requires a transfer of appropriations from Materials and Services to Personal Services AND a transfer from contingency to provide the following:

- 11 additional FTE (Hazardous Waste Technicians) to staff both the facility that is currently operating and the new Metro Central Household Hazardous Waste facility;
- Necessary supplies, uniforms and training for the above;
- Reimbursement for extra expenditures incurred to-date for temporary employees;
- Two "environmental specialist" positions (2 FTE, one Hazardous Waste Technician and one Hazardous Waste Specialist); and
- Equipment and related supplies. (This cost will be offset with revenue from fees charged for disposing of refrigerators and reductions in closure costs for the St. Johns Landfill).

Additional appropriations required	
11 FTE w/fringe (also temps)	274,974
Supplies	50,000
Training	10,000
Personal Protective Equip	25,000
2 FTE Environ. Services	53,042
Supplies, Equip. for above	36,208
Total	\$449,224

Savings in current budget that will offset anticipated costs	
St. Johns Landfill security	(47,908)
Scalehouse	(40,000)
Misc. Personal Services	(20,000)
Savings in disposal cost	(195,600)
Total	(\$303,508)

Total amount to be transferred from contingency for the remainder of FY 1992-93: **\$145,717**

RECOMMENDED ACTION:

The recommended action is Option #2 above since it will save considerable disposal cost. Detailed below is a description of each program component and a justification of why the budget amendment is necessary for that component.

Program Component: Increase in FTEs (Hazardous Waste Technicians)

The largest portion of operational expense for the Household Hazardous Waste Facility has been for transportation and disposal of drummed wastes. The second largest operational cost is labor. The Household Hazardous Waste Plan projected that staffing needs for the facility would be met with three technicians and one supervisor chemist. These four employees would accept household hazardous waste from an estimated 50 customers per week.

It is now evident that participation projections made during the facility planning process were significantly underestimated. Usage of approximately **200 plus customers per week** has resulted in greater overall quantities of materials collected. This, coupled with a higher-than-expected amount of labor-intensive wastes such as paints, has created an urgent need to increase the number of technicians at the existing facility.

The new Metro Central Household Hazardous Waste Facility, the siting of which is required by state statute, is scheduled to come on line in March 1993. That facility will serve the densely populated areas of Northwest, North and Northeast Portland. Based on our practical experience of facility operation, the actual staffing requirement is ten technicians and one supervisor for each facility with a shared chemist. It should be noted that the more labor-intensive aspects of facility operation result in significant disposal cost savings.

It is possible to run a household hazardous waste collection program by receiving materials, sorting them, and immediately putting them into drums for further handling by an existing hazardous waste management contractor company. However, significant savings are obtained by utilizing trained staff on-site to process materials so that they are shipped in the form required by the ultimate disposal/storage facility. In order to achieve these savings, a wide variety of solvent-based materials are removed from their original containers and consolidated into 55-gallon drums, a process known as bulking.

Operations staff has been highly innovative in managing the materials received at the Metro South facility. Staff has prepared a detailed explanation of the various costs associated with bulking, lab packing, unknown analysis, and latex processing, included as Attachment 2.

The following table shows clearly how utilizing the skills of Metro's highly trained staff results in a significant cost savings over the option of contracting for the same services. Shown is the current cost to dispose of bulked solvent-based materials, compared with the cost to dispose of loose-packed solvent-based materials when the contractor does bulking. The contractor charges are based on information supplied by bidders for the hazardous waste transport and disposal contract established through the competitive bid process. Also shown are the savings realized by Metro by using our trained staff for maximum processing.

	<i>Metro Cost</i>	<i>Contractor Charge</i>	<i>Metro Savings</i>	<i>Monthly Savings</i>
Solvent-based Materials	7.62/gallon	17.07/gallon	9.45/gallon	28,350
Latex Paint	3.30/gallon	7.50/gallon	4.20/gallon	11,088
Unknowns	4.17/each	17.00/each	12.83/each	21,560

During the course of a full year, a savings of \$732,00 would be realized.

The Metro South facility is dangerously understaffed. From the first day of operation, the facility received a much higher level of participation than was anticipated in the planning process, resulting in an extremely heavy workload for the technicians. The current staff still must work overtime on a daily basis in order to process incoming waste according to regulatory requirements before closing the facility. Even with emergency assistance provided by Operations professional staff and other trained volunteers, overtime costs at the facility average about \$8,000 per month.

As a stop-gap measure, the Operations Division attempted to meet immediate staffing needs with temporary employees. The program currently uses three temporary employees with a total incurred cost of \$28,233 since July, 1992. Staff researched use of temporary employees at other household hazardous waste facilities and concluded that temporary employees who bulked solvents were at risk without proper training. The household hazardous waste facility in Minnesota uses short-term temporary employees for bulking solvents and has experienced seven reported cases of chemical exposure injuries out of twenty employees over the span of one year. Staff drew the conclusion that temporary employees who do not have proper training should not be used for work that places them at risk of chemical exposure.

Program Component: Freon Collection in Compliance with Clean Air Act Rule

On July 1, 1992, new Clean Air Act rules governing the release of chlorofluorocarbons (CFCs) into the atmosphere went into effect. Freon is a type of CFC. Since July, Metro Operations employees have been processing freon containing equipment (refrigerators, freezers, air conditioners, freon tanks, etc.) in order to comply with the new rules. Several vendors who once accepted refrigerators from the public have stopped taking them, resulting in a dramatic increase in the number of units received at Metro facilities. It is evident that, at current flows, one (1) FTE is needed to process freon from both transfer stations. To manage the increase in the number of refrigerators received at our facilities, staff has proposed in a separate action that Metro establish a fifteen dollar (\$15.00) per residential unit and twenty dollar (\$20.00) per commercial unit charge for receiving and processing all freon containing equipment. The projected revenue from this charge is estimated to be \$ 72,000 in the first year, which will cover expenditures for the program component including labor, supplies and equipment. To pay for this necessary program requires \$35,792 (including fringe) in Personal Services funds, \$8,000 capital costs and amortization for equipment, and \$28,208 for supplies from the Materials and Services funds. The Materials and Services costs include incidental equipment and supplies, maintenance, travel between the two transfer stations, fuel costs, personal protective equipment and contingency.

Budget impact	<i>Personal Services</i>	<i>Capital Equipment</i>	<i>Mat'ls & Services</i>
Annualized cost	\$35,792	\$8,000	\$28,208

Program Component: Gas Monitoring at St. Johns Landfill

During the St. Johns Landfill Closure Project we have discovered that gas monitoring, gas system maintenance, ground and surface water sampling and technical monitoring can be accomplished by a Metro employee more efficiently and at a significantly lower cost than with using the services of the closure contractor or from other service providers. Fully-loaded contractor costs are in the \$50.00 per hour price-range with very limited scheduling flexibility. Our employee, who will have greater site-specific expertise in water and gas system maintenance and monitoring, will cost about \$25.00 per hour including fringe with an estimated additional \$5.00 per hour for support services. This employee will be utilized at other Metro sites (with comparable cost savings) to perform all required environmental monitoring tasks. Therefore, one (1) FTE is indicated to accomplish the job. All monitoring functions are contemplated to be permanent tasks.

By authorizing this position, Metro will decrease the moneys needed for closure at St. Johns Landfill, which are already budgeted, and lower operating expenditures at all other sites. Funds need to be transferred to Operations and Personnel Services in the amount of \$54,110 for FY 92-93.

Budget impact	<i>Personal Serv's</i>
Annualized cost	\$54,110

Program Component: Mid-year adjustments

- *Temporary employees at Metro South Household Hazardous Waste Facility*

In order to keep the HHW facility functioning, temporary employees have been used since July to help process the waste in accordance with the procedures outlined in this report. The expenditure to-date is equivalent to one full-time employee, or \$31,339.

Budget impact	<i>Personal Serv's</i>
Annualized cost	\$31,339

• ***Training and Uniforms***

The proposed addition of thirteen employees would result in necessary increased expenditures in two additional line items. Uniforms, which includes up-front purchase costs for respirators, protective boots and appropriate clothing, should be increased by \$25,000, and training should increase by \$10,000.

Budget impact	<i>Mat's & Serv's</i>
Annualized cost	\$35,000

• ***HHW Supplies***

As noted above, the HHW is using \$11,000 worth of supplies each month. Additional appropriation is required for freon expense in the amount of \$36,208. Supplies include drums for shipping waste, absorbent for lab-packing and other items necessary to process waste according to transport and disposal requirements. This line item was under-funded in the current budget and will need an additional \$86,208 to balance in FY 1992-93.

Description of cost impact	<i>Mat's & Serv's</i>
Annualized cost	\$86,208

Cost Reductions

The Operations Division is concerned with efficiency. In an effort to identify necessary funds to run the Hazardous Waste Program, staff has explored other areas within the Division where long-term, on-going cost reductions could be made. The following examples demonstrate two areas identified by staff where fund transfers may be made within the Division.

Security Services at St Johns Landfill

The current budget authorizes 2 FTE safety security employees for the St. Johns Landfill. These two positions are no longer needed. During FY 92-93 budget development, staff predicted that some security would need to be provided for the gas system, rolling stock, and general site monitoring at the St. Johns Landfill. The closure project has progressed so well that, with the monitoring presence noted above coupled with a lack of on-site activity by contractors this winter, it is clear that no security is needed. Staff recommends applying these funds to the proposed FTE increases as indicated. This amounts to a savings of \$47,908.

Savings from Reduced Scalehouse Staffing

Both the St. Johns Landfill and compost facility were allocated funds for scalehouse operation for FY 1992-93. Again, since the St. Johns Landfill closure project summer phase was completed on time and the compost facility will remain closed, no scalehouse presence is needed for the remainder of this fiscal year. This results in a savings of 1.5 FTE, or \$40,000. Personal Services

accounts will accrue \$20,000 in additional savings in miscellaneous support costs and vacancies. Total savings therefore, as a result of the reduction in staff is \$60,000.

SUMMARY

Two Household Hazardous Waste (HHW) Facilities could be staffed with the current authorized nine technicians, two supervisors and a chemist. However, as our analysis suggests, the cost of disposal would increase by \$57,975 per month at current levels of participation and quantities, or \$695,700 on an annual basis. With the scheduled opening of HHW Central on March 1, 1993 the total annual increase for two facilities in this fiscal year would be \$841,797 since we have assumed that two facilities will collect 166% of what one facility collects now.

Based on the data and experience available at this time we project total disposal expenses for two facilities in FY 1992-93 to be \$974,400 with increased staff authorization. Current FY budget for disposal is \$1,170,000. Therefore we will under-spend the current disposal budget by \$195,600 at current levels if we process the waste in-house.

In the event no additional funds are allocated for either increased disposal or increased processing labor it is likely that the service provided would have to be severely curtailed. In previous presentations staff looked at several options that may, on first glance, allow us to limit expenditures. After further analysis, options such as eliminating recycling, limiting hours open to the public or closing the facility have proven to offer no real cost savings or efficiencies.

If no funds are available it would be necessary to reduce our participation levels by 90 customers per week for the rest of the fiscal year in order to have sufficient moneys to pay for disposal and supplies. As noted in the prior analysis limiting the days open tends to compress participation into the remaining days. Therefore, it is likely that to maintain a 300-400 per month customer count the facility could only be open one day a month. Neither facility was designed to accommodate that kind of schedule. Long lines, poor process flows, errors, a probable violation of our Oregon City permit and a questionable adherence to state law are probable outcomes of such a drastic schedule.

In FY 1993-94, with both facilities operating full-time (compared to three months of operation in FY 92-93 at HHW Central) the total disposal costs without additional staff will be \$2,491,462 vs. \$1,336,780 estimated disposal cost with additional staff.

The addition of 1.7 FTE for A-fuel bulking, 1.6 FTE for unknown identification, 0.25 FTE for reuse, and 2.45 FTE for latex processing increases the total staffing needs to ten (10) technicians and one (1) supervisor per facility or a total of twenty (20) FTE technicians and two (2) supervisors and one (1) chemist. We currently have authority for nine (9) FTE, two (2) supervisors and one (1) chemist. The proposed increase would cost approximately \$436,600 per year.

STAFF RECOMMENDATION:

As illustrated in the tables above, maintaining the straight disposal option (Option 1) will result in an increase in total expenditures of \$619,628 for the remainder of FY 92-93. Adoption of Option 2 will result in an increase in total operations expenditures of \$145,717 for FY 1992-93. Staff recommends that Option 2 be adopted; that the budget for Operations be amended to authorize an additional 13 FTE, and expenditures be increased by \$145,717.

EXECUTIVE OFFICER RECOMMENDATION

The Executive Officer recommends approval of Ordinance No. 92-474.

SC/RN:ay/gbc
nagy/STAF1030.RPT

Attachment 1

Analysis of Household Hazardous Waste Disposal Costs

21-Oct-92

	← Option #1 - Current Budget Plus →			← Option #2 →	
	Total Current Budget	Unbudgeted Add'l Cost	Total Cost of Option #1	Total Cost of Option #2	FTE
	FTE	FTE	FTE		
Personal Services					
HHW WASTE PROGRAM - Disposal					
Facilities Supt.	16,686	0.30	16,686	0.30	16,686 0.30
Senior SW Planner (Asst. Supt.)	14,252	0.30	14,252	0.30	14,252 0.30
Associate Management Analyst	17,912	0.46	17,912	0.46	17,912 0.46
Program Coordinator	110,190	3.00	110,190	3.00	110,190 3.00
Hazardous Waste Specialists	128,540	4.00	128,540	4.00	128,540 4.00
Hazardous Waste Technicians	139,453	5.00	139,453	5.00	307,328 16.00
	427,033	13.06	427,033	13.06	594,908 24.06
Temporary Employees		28,233	28,233		28,233
Overtime	7,218		7,218		16,218
Fringes (11%)	173,701	3,106	176,806		243,567
Total of HHW Program	607,952	13.06	31,339 0.00	639,290 13.06	882,926 24.06
(FREON AND GAS MONITORING)					
Hazardous Waste Technician					15,084 1.00
Hazardous Waste Specialist					22,803 1.00
Fringes					37,887 2.00
					15,155
Total Environ. Services Program					53,042
Total Personal Services	607,952	13.06	31,339 0.00	639,290 13.06	935,968 26.06
Materials & Services (both programs)					
Other Supplies	6,600	50,000	56,600		92,808
Disposal - Hazardous Material	1,170,000	646,197	1,816,197		974,400
Training, Tuition, Conferences	24,500		24,500		34,500
Uniform Supply & Cleaning Services	24,000		24,000		49,000
Other M&S Lineitems	315,006		315,006		315,006
Total Materials & Services	1,540,106	696,197	2,236,303		1,465,714
TOTAL APPROPRIATION	2,148,058	13.06	727,536 0.00	2,875,594 13.06	2,401,683 26.06

	Option #1	Option #2
Current appropriation for HHW - FY 92-93	2,148,058	2,148,058
Option #1 - total appropriation required:	2,875,594	2,401,683
	=====	=====
	-727,536	-253,625
Less existing savings in PS		
Security Guards (St. Johns)	47,908	47,908
Misc. PS savings (vacancies, etc.)	20,000	20,000
Scalehouse technicians (1.5 FTE))	40,000	40,000
	=====	=====
Contingency Transfer	-619,628	Contingency Transfer -145,717
		Transfer from M&S to PS 74,392

ATTACHMENT 2

HAZARDOUS WASTE PROGRAM ANALYSIS

The Operations Division of the Solid Waste Department has conducted an ongoing analysis of the Household Hazardous Waste Facility operations from the opening last February to the present. The following report contains the results of staff analysis and includes recommendations.

The largest portion of operational expense for the Household Hazardous Waste Facility has been for transportation and disposal of drummed wastes. The second largest operational cost is labor. It is now evident that estimates made during the facility planning process were understated.

During the facility planning process, it was expected that three technicians and one supervisor chemist would be sufficient to staff the facility. These four employees would accept household hazardous waste from an estimated 50 customers per weekend. In actual practice, an unexpectedly high participation level of 200 plus customers per weekend, coupled with higher than expected proportion of labor-intensive wastes such as paints resulted in significantly greater quantities of materials collected than predicted. The actual amount requires a staff of ten technicians and one supervisor for each facility with a shared chemist.

It should be noted that the more labor-intensive aspects of facility operation result in significant overall cost savings. It is possible to run a household hazardous waste collection program by receiving materials, sorting them, and immediately putting them into drums for further handling by an existing hazardous waste management contractor company. However, some significant savings are obtained by utilizing trained staff on-site to process materials so that they are shipped in the form required by the ultimate disposal/storage facility. Currently, in Metro's program, in order to achieve these savings a wide variety of solvent-based materials are removed from their original containers and consolidated into 55-gallon drums, a process known as bulking.

Staff has prepared a detailed explanation of the various costs associated with bulking, lab packing, unknown analysis, and latex processing. In all instances the amounts quoted are derived from vendor prices as experienced at the current facility or from direct inquiries to other similar facilities around the country.

Cost to dispose of bulked solvent-based materials: (current and proposed practice)

Average disposal price per 55-gallons (70% @ \$190-A fuel liquid, 20% @ \$325-recycled paint, and 10%@\$550-fuel sludge)	\$253.00
Estimated labor cost per 55-gallons (estimated 6 person-hours per drum)	\$106.00
Estimated materials cost per 55-gallons (cost of drum plus disposable safety equipment)	\$60.00

total cost per 55-gallons	\$419.00
cost per gallon	\$7.62
Cost to dispose of loose-packed solvent-based materials when the contractor does bulking:	
Disposal price per 55-gallon drum	\$450.00
Estimated labor cost per 55-gallon drum (loading and handling of drum and returned empty containers)	\$9.00
Estimated materials cost per 55-gallon drum (cost of disposable safety equipment- drum is returned)	\$2.00
total cost per 55-gallon drum	\$461.00
average gallons contained in loose-packed drum-27	
cost per gallon	\$17.07

(If we use the standard established in other hazardous waste facilities, i.e., Seattle, San Francisco, of 18 gallons per drum, the cost is \$25.66 per gallon.)

This results in a savings of \$9.45 for every gallon of solvent-based material sent bulked instead of loose-packed. Considering that we process about 3000 gallons of solvent based materials in a month, this results in an estimated net savings of \$28,350 per month even with the increase in labor from \$9.00 to \$106.00 per drum.

In the course of a typical operating day, 140 unlabelled containers of waste are received at the facility. About 40% of these are paints, which are categorized quickly and inexpensively. Of the remaining unknowns, about two-thirds can be identified sufficiently for disposal purposes in two or three minutes, consuming only twenty cents worth of test tubes and other disposable supplies. The remaining unknowns take more time, although rarely does it take more than fifteen minutes of work and a few dollars in supplies to identify even the most difficult items. Using the identification scheme developed by our chemist at the facility, the equivalent of two staff persons working full time and the expenditure of about \$800 in supplies each month is all that is required to identify all unlabeled containers received. This totals about \$7,000 per month.

By comparison, a facility in Washington sets aside all unknowns for identification and removal by a disposal contractor. They are charged \$1,100 per drum of unknowns for this service. Assuming that the disposal portion of the work only accounts for about \$250 of this fee (based on our average per drum disposal price), about \$850 is being charged for identification services. Estimating 50 containers per drum, this amounts to \$17 per unknown. At our facility, that would add up to \$28,560 per month, or about \$21,000 more than our current cost.

Several types of materials received at the HHW are currently being given away for reuse, following certain product quality and safety guidelines. This program requires approximately 15

hours per week of labor, of which 10 hours is above and beyond the time it would take to process that same material for disposal. The avoided disposal cost of the items given away in a month is an estimated \$1,300. While the net savings for this program is only about \$500 per month, the additional benefit of reusing the materials as opposed to disposal should also be considered.

Latex paint is currently separated into three categories, and each category is managed differently. Costs were determined as follows:

1) HazWaste portion-high in lead an mercury-5%

Disposal price per gallon	\$5.45
Estimated labor cost per gallon	\$2.50
Estimated materials cost per gallon (cost of drum plus disposable safety equipment)	\$0.80
cost per gallon	\$8.75

2) Solidified portion-frozen, soured or otherwise poor quality waste paint-35%

Disposal price per gallon (solid waste fees only)	\$0.20
Estimated labor cost per gallon	\$2.50
Estimated materials cost per gallon (disposable safety equipment, solidifying chemicals)	\$0.50
cost per gallon	\$3.20

3) Recycled portion-60%

Disposal price per gallon (estimated 5 hr/wk interacting with recipients)	\$0.20
Estimated labor cost per gallon	\$2.50
Estimated materials cost per gallon (disposable safety equipment only- drums returned)	\$0.20
cost per gallon	\$2.90

Therefore, the weighted average disposal cost per gallon for latex is:

$$(.6 \times 2.90) + (.35 \times 3.20) + (.05 \times 8.75) = \underline{\$3.30} \text{ per gallon}$$

Alternate disposal scenarios - comparison

A. Do no recycling, bulk all paint together, send it to our current disposal contractor:

Disposal price per gallon	\$5.45
Estimated labor cost per gallon (lower because no sorting done)	\$1.25
Estimated materials cost per gallon (cost of drum plus disposable safety equipment)	\$0.80
cost per gallon	\$7.50

B. Do no recycling, do no bulking, send loose-packed paint to our current contractor:

Our contractor has not quoted us a price for doing this, but based on our experience with solvent based paints, it would certainly be significantly higher per gallon than bulked material, probably around \$4.00 more per gallon, for a total expense of \$11.50 per gallon.

C. Enter into a contract similar to that recently negotiated in Seattle with a contractor who is able to take away loose-packed latex and recycle a portion of it:

Disposal price per 55-gallon drum	\$107.00
Estimated labor cost per 55-gallon drum (loading and handling of drum)	\$9.00
Estimated materials cost per 55-gallon drum (cost of disposable safety equipment- drum is returned)	\$2.00
total cost per 55-gallon drum	\$118.00
average gallons contained in loose-packed drum- 18 (this number calculated in Seattle)	
cost per gallon	\$6.55

(As with A fuels our number of gallons is an average of 27 which if applied to latex results in a cost of \$4.33 per gallon or \$1.43 difference or \$3,575 per month.)

Under this scenario, we would spend an additional \$3.25 on each gallon of latex received, totaling about \$8125 additional expenses in a month.