



HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAM ANNUAL REPORT 2022/2023





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**FISCAL YEAR 2022/2023
Household Hazardous Waste Collection Program**

Annual Report

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FISCAL YEAR 2022/2023
Household Hazardous Waste Collection Program

Annual Report

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INTRODUCTION

This summary report of the Household Hazardous Waste (HHW) Program for fiscal year (FY) 2022/23 presents the program participation levels, an analysis of the hazardous waste delivered to the facility, and the costs associated with the program. The program's high level of participation and the amount of hazardous waste collected and properly managed each year demonstrate the benefits to both public health and the environment.

Background

In 1995, it was recognized and resolved by all central Contra Costa County cities¹, the Central Contra Costa Solid Waste Authority, Central Contra Costa Sanitary District (Central San), and co-sponsor Mt. View Sanitary District (MVSD) that mobile HHW collection events were not efficient or convenient, and that a permanent HHW collection facility (HHWCF) was needed. In 1997, Central San opened the first permanent HHW facility in Contra Costa County with its service agreement partners MVSD and the cities of Clayton, Concord, and San Ramon.

Pollution Prevention

Central San's core function is to operate a municipal wastewater collection system and a 53.8-million-gallons-per-day-rated treatment plant (plant). The wastewater collection system covers 145 square miles and includes approximately 1,500 miles of sewer pipes. In FY 2022/23, the plant treated nearly 12 billion gallons of wastewater.

MVSD's plant serves an estimated population of 21,900, with approximately 270 businesses in its 4.7 square mile service area, which is served by 73 miles of sewer collection system. MVSD reclaims approximately 450 million gallons of water for 21 acres of wetland habitat every year. Both Central San's and MVSD's plants are designed to treat and prevent biological waste from entering our waterways. However, chemicals must be removed prior to entering the plant to keep the biological treatment train healthy. This is how HHW collection benefits Central San and MVSD. Pollution prevention at the source ensures that our plant operates at peak efficiency and eliminates chemical wastes from flowing through treatment processes designed specifically for human waste.

¹ Clayton, Concord, Danville, Lafayette, Martinez, Moraga, Orinda, Pleasant Hill, San Ramon, and Walnut Creek

RESIDENTIAL PARTICIPATION

The HHW Collection Program celebrated the completion of its 25th year of service in October 2022. The HHW Program serves all central Contra Costa County, comprising 199,653 households with a population of approximately 523,000. Program participation for FY 2022/23 was 14.9 percent (30,074 residential customers) across the service area, which is down from 16.8 percent in FY 2021/22. The 11 percent decrease in participation rate is assumed to be partly due to a longer and wetter than average winter. Also, participation has not returned fully to pre-pandemic levels since peaking at 18.4 percent in FY 2018/19, then falling to 14.0 percent due to the three-month closure in 2020, during the beginning of the pandemic.

Total occupied households within the service area modestly increased by 0.5 percent in FY2022/23 from 198,619 to 199,653. For perspective, the arithmetic mean of HHW participation (count and percentage of total) and total households in the HHW service area for the previous ten fiscal years was 32,320 customers, 16.66 percent participation, and 193,420 total households, respectively.²

The HHW Collection Facility was open to the public and operational for 295 days during FY2022/23. Seasonal participation patterns returned to their historical norms, with our highest participation occurring in the summer, then tapering off into fall and winter and steadily increasing from the new year into the spring. The months of July and December were the inflection points of this cycle, again, with 3,222 and 1,349 customers served, respectively. The reuse room was open during all operating days and was used by approximately 14,000 customers. Figure RP-1 shows monthly HHW program participation.

² A ten-year standard deviation of 2,696 customers, 1.33 percent HHW participation, and 2,780 total households was calculated as well.

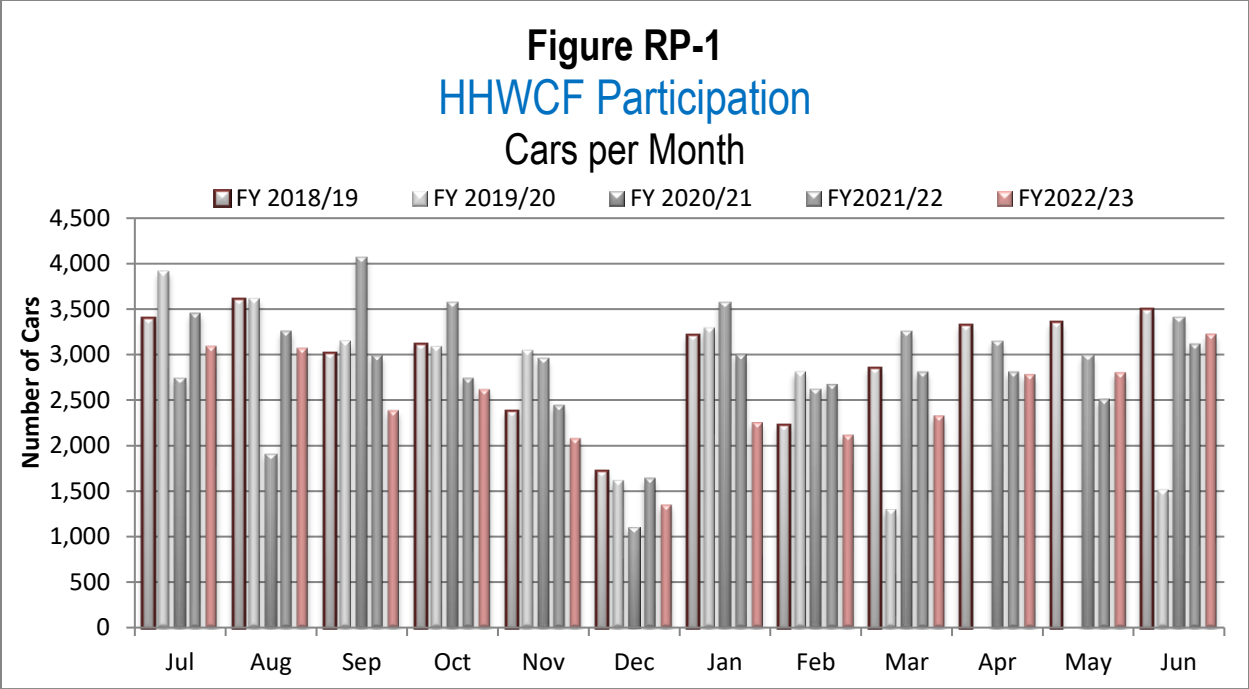


Figure RP-2 presents the average residential participation for each day of operation, Monday through Saturday. Participation throughout the week continued to resemble previous averages, with the bulk of customers dropping off waste at the end of the work week. Also shown in RP-2 are the results for fiscal years 2018/19 and 2022/23, which represent the last pre-pandemic (baseline) year and the current year.

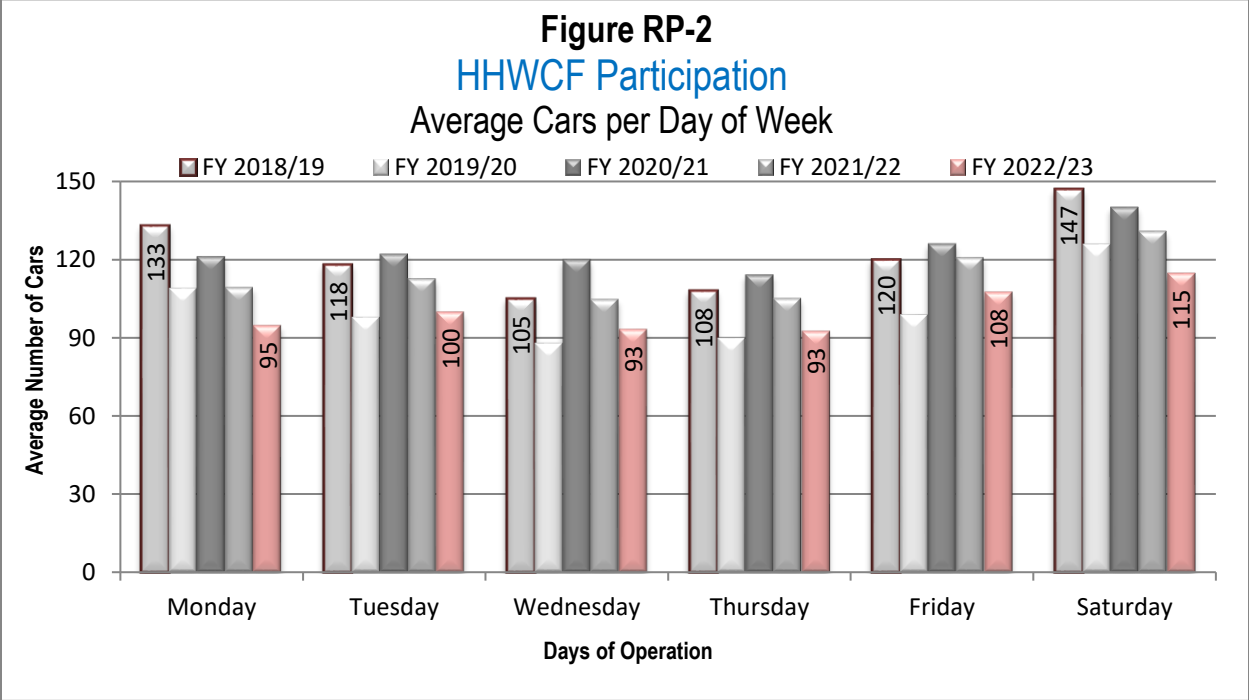


Figure RP-3 presents a comparison of the average number of cars per operating day since the HHW facility opened. This data serves as a tool for planning staffing levels through the different seasons and promoting the facility’s services. FY 2022/23 showed a decrease to 102 cars per day from 114 cars per day in FY 2021/22, but the previous ten-year average was 113 cars per day with a standard deviation of 8.

According to Cal Recycle, HHW programs in California saw a 14 percent decrease in permanent HHW facility participation when compared to last year. Considering the numerous impacts on our lives over the last three years, there are several ways to speculate why participation has not rebounded back to pre-pandemic levels and if we should even expect them to return to that level.

- People are out and about, not thinking about cleaning the garage.
- Weather – Record rain events kept most people indoors for the winter and spring.
- The economy – Customers may have calculated to stretch their household products longer and save them for a little longer because of the inflated cost of replacement.
- It’s too expensive to start home improvement projects. Building material prices and loans to pay for them are too high.
- The “California Exodus,” which should bring additional participation because most people do not take household chemicals with them, has not noticeably affected participation. In fact, the number of occupied households in the HHW service area increased by one-half percent.

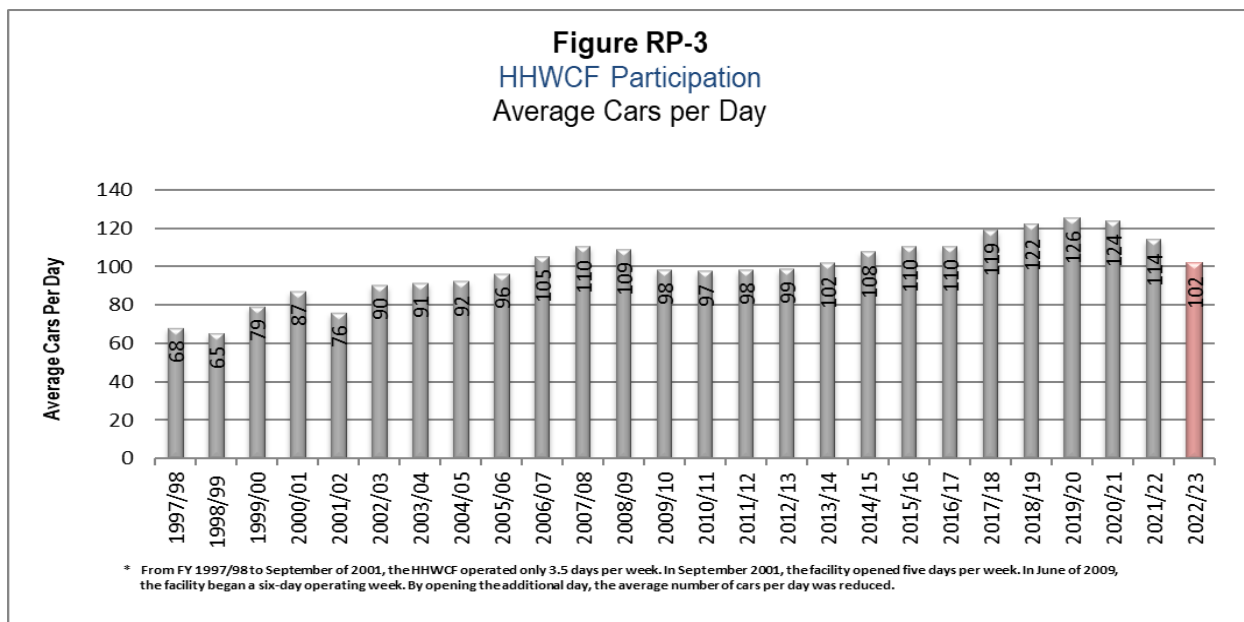


Table RP-1
Residential Participation by Community
Fiscal Year 2022/23

Community	¹ Number of Households	HHW Facility Participation	% of Community Served	
Clayton	4,082	761	18.6%	
Concord	46,096	6,489	14.1%	
Danville	15,872	2,354	14.8%	
Lafayette	9,680	2,119	21.9%	
Martinez/ MVSD	14,978	5,582	37.3%	
Moraga	5,755	874	15.2%	
Orinda	7,095	1,128	15.9%	
Pleasant Hill	13,942	2,898	20.8%	
San Ramon	28,829	1,117	3.9%	6.5%
² San Ramon		747	2.6%	
Walnut Creek	32,791	4,918	15.0%	
Unincorporated	20,533	1,587	7.7%	
Subtotal	199,653	29,827	14.9%	
³ Out of Service Area	N/A	⁴ 247	N/A	
Total	199,653	30,074	N/A	

¹ Central San estimate based on January 2023 California Department of Finance data and data provided by MVSD and the City of San Ramon.

² Central San does not sponsor the City of San Ramon's Door-to-Door (DTD) Collection program. Still, it should be noted that the number of participants served by the program should be included with the number of participants that used the HHW Facility to obtain an overall HHW participation rate. The DTD program includes e-waste pickups.

³ Hazardous wastes from outside of the service area were accepted and processed for one of two reasons: 1) employees from Central San and MVSD who live outside of the service area are also eligible for HHW program participation, or 2) household hazardous waste generated outside the service area that is deemed unsafe for further transport is accepted and processed as a safe and responsible business practice.

⁴ The number of cars outside the service area was not included in the participation percentage.

Table RP-2
Percentage of Households in Service Area
and Participation by Community
Fiscal Year 2022/23

Community	¹ Number of Households	% of Households in Service Area	HHW Facility Participation	% of Total Served
Clayton	4,082	2.0%	761	2.6%
Concord	46,096	23.1%	6,489	21.8%
Danville	15,872	7.9%	2,354	7.9%
Lafayette	9,680	4.8%	2,119	7.1%
Martinez/ MVSD	14,978	7.5%	5,582	18.7%
Moraga	5,755	2.9%	874	2.9%
Orinda	7,095	3.6%	1,128	3.8%
Pleasant Hill	13,942	7.0%	2,898	9.7%
San Ramon	28,829	14.4%	1,117	3.7%
Walnut Creek	32,791	16.4%	4,918	16.5%
Unincorporated ²	20,533	10.3%	1,587	5.3%
Subtotal	199,653	100%	29,827	100%
³ Out of Service Area	N/A	N/A	247	N/A
Total	199,653	N/A	30,074	N/A

¹ Central San estimate based on January 2023 California Department of Finance data and data provided by MVSD and the City of San Ramon.

² Hazardous wastes from outside of the service area were accepted and processed for one of two reasons: 1) Employees from Central San and MVSD who live outside of the service area are also eligible for HHW program participation, or 2) Household hazardous waste generated outside the service area that is deemed unsafe for further transport is accepted and processed as a safe and responsible business practice.

³ The number of cars outside of the service area was not included in the participation percentage.

SAN RAMON DOOR-TO-DOOR COLLECTION PROGRAM

Since 2011, when the City of San Ramon elected to sponsor their own Door-to-Door (DTD) HHW collection program, we have tracked their usage with the HHW facility to show overall participation and proper waste management within the Central San service area. Table SR-1 below describes the participation, waste volumes, and cost that San Ramon reported, compared to the HHW facility's usage figures for San Ramon. San Ramon reported their DTD program served 747 participants and collected a total of 26,929 pounds of waste (not including electronic waste) at a cost of \$156,991.52 in FY 2022/23.

San Ramon's decrease in DTD participation follows a similar trend to that of Central San's HHW Program and others in California have experienced in FY 2022/23. See Figure RP-3 (Page 8) and Table SR-1 below.

Table SR-1
San Ramon's HHW Facility Participation with
San Ramon's Door-to-Door Program

HHW Collection Method	FY 2021/22	FY 2022/23
Central San HHW Facility	1,271	1,117
City of San Ramon Door-to-Door Program *	1,089	747
Total participants	2,360	1,864
Percent difference in participation from previous period	21% Less	

Pounds of Waste Collected from San Ramon	FY 2021/22	FY 2022/23
Central San HHW Facility	83,255	68,255
City of San Ramon Door-to-Door Program	50,646	26,929
Total pounds	133,901	95,184
Percent difference in pounds of waste collected from previous period	29% Less	

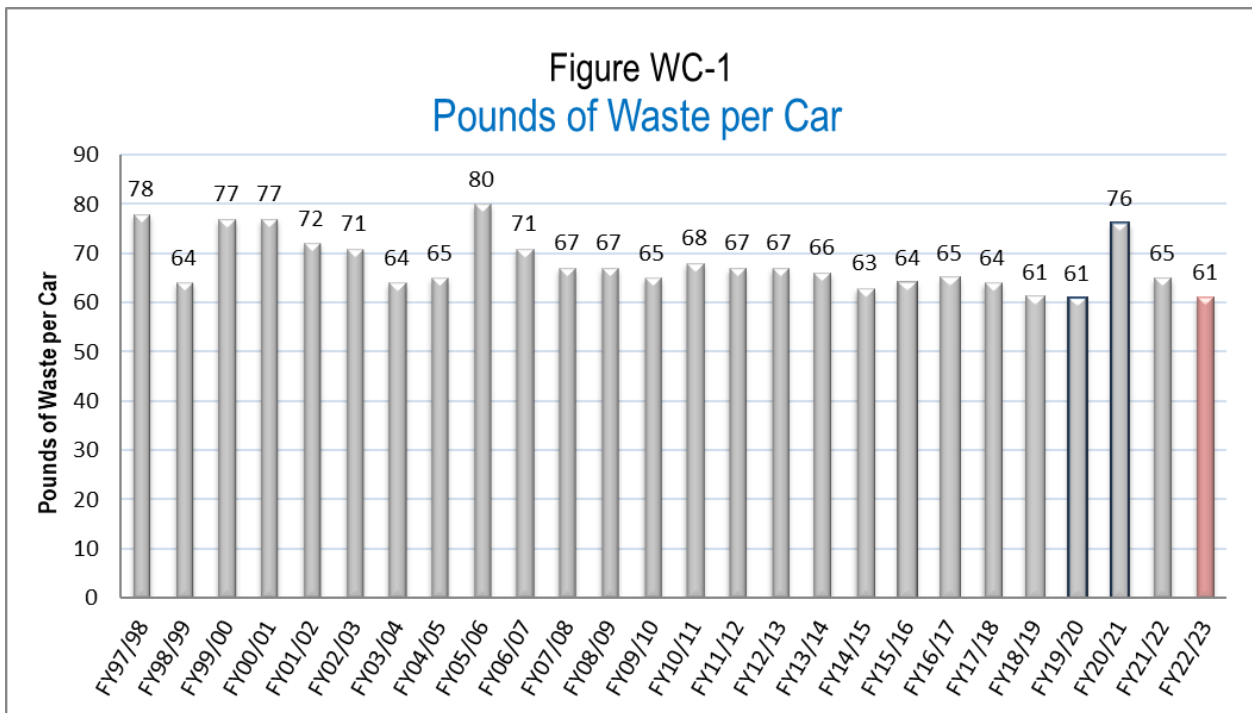
Cost of HHW Collection Method	FY 2021/22	FY 2022/23
Central San HHW Facility	\$78,036*	\$94,473**
City of San Ramon's portion of HHW Facility cost	\$33,812*	\$22,812
City of San Ramon Door-to-Door Program	\$163,046*	\$156,991
Total Cost	\$298,399	\$274,276
HHW Facility Pounds per participant	65	61
HHW Facility Cost per participant	\$88	\$105
HHW Facility Cost per pound of waste collected	\$1.36	\$1.74
DTD Pounds per participant **	47	36
DTD Cost per participant	\$150*	\$210
DTD Cost per pound of waste collected	\$3.22*	\$5.83

*Numbers from last year corrected due to rounding errors while calculating.

**Cost is determined by multiplying the Total SR customers serviced at the HHW facility by the cost/participant, then subtracting the amount the City of San Ramon paid for the DSRSD households.

WASTE VOLUMES

In FY 2022/23, the HHW program collected 1,838,347 pounds of waste from residents and small businesses. Of that total, 1,583,854 pounds³ of hazardous waste were recycled or disposed of, while 254,493 pounds of reusable products were given to the public in FY 2022/23. Compared to FY 2021/22, the amount of reusable products increased by about 4 percent, while total waste volumes collected decreased by 18 percent. However, if fiscal years 2020/21 and 2021/22 are excluded and considered anomalous, FY 2022/23 would only be a 13 percent decrease compared to operations in pre-pandemic FY 2018/19. (See Table WC-1 for a breakdown by city).



On average, each customer processed by the HHW program during FY 2022/23 delivered 61 pounds of waste for disposal or reuse. This includes the 30,074 residents, 191 small business appointments, and 62 retail partners that used the HHW collection facility during the fiscal year. This represents a 6 percent decrease from the previous fiscal year and approximately one standard deviation from the 10-year average.⁴

The wastes were either reused or transported from the HHW collection facility for recycling,

³ An arithmetic mean and standard deviation were calculated for the previous 5 years and found to be 1,959,154 Pounds and 412,141 Pounds, respectively.

⁴ A 10-Year mean and Standard Deviation were calculated to be 65.2 and 4.06 pounds respectively.

fuel blending, incineration, treatment, or landfill. Data specific to waste management activities are presented on pages 13 through 16.

The California Department of Resources Recycling and Recovery (CalRecycle) requires a Form 303 report each fiscal year (July through June) summarizing the quantity and types of hazardous waste processed and a breakdown of the waste management method for each type of hazardous waste collected, it is included as Appendix I.

Figure WC-2 presents the quantity of wastes transported off-site each month for disposal. FY 2022/23 showed an 18 percent decrease compared to FY 2021/22, with all but two months reporting waste volumes less than the previous year. Comparison to preceding years yields inconclusive inferences as the Reuse Room was shut down for a majority of FY 2019/20 and FY 2020/21, which led to increased waste disposal for the facility. Again, this may simply be a rebounding effect in the wake of the COVID-19 orders being rescinded and the public returning to a previously “normal” way of life. A plateau of waste volumes and vehicles served in succeeding years may infer a new “normal” for the facility’s customer base. An inflection point and increase in the same values may show a return to pre-pandemic trends. Additional datasets from succeeding years are needed for an answer with certainty to be reached.

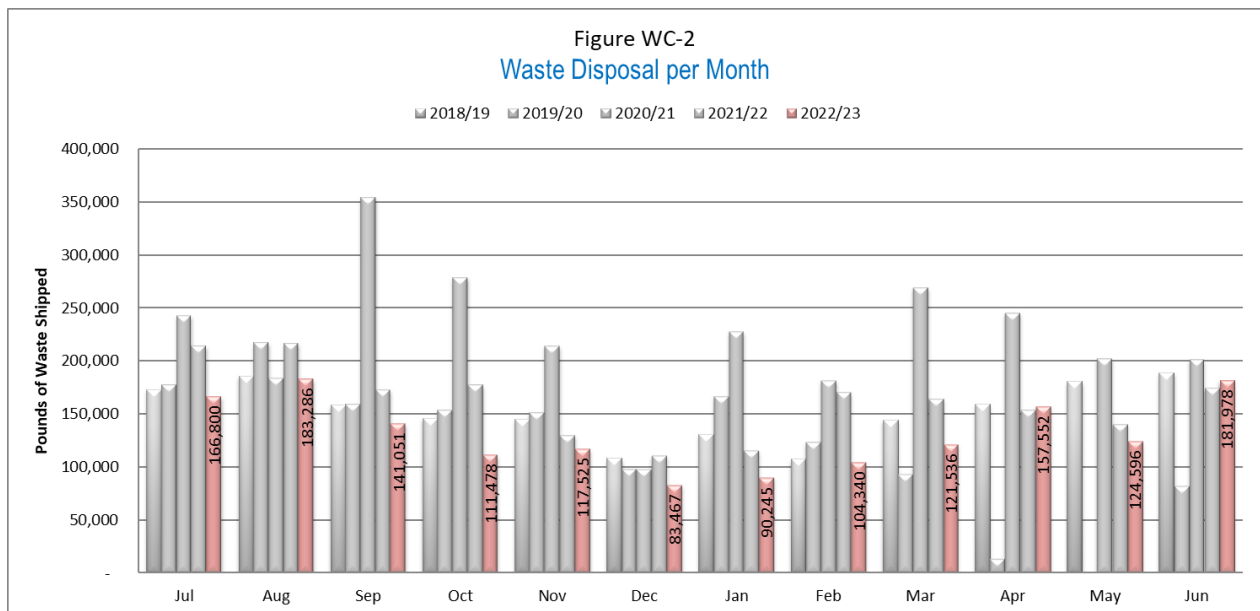


Figure WC-3 presents a breakdown of hazardous wastes processed by type of waste. The transportation classifications on the shipping documents were used as the primary means for segregation into waste types, except for “Automotive Products,” which was used to represent

the facility's Motor Oil, Oil Filter, Antifreeze, and Lead Acid Battery waste streams. Compared to the previous fiscal year, there were no significant changes to the proportional weight for any specific category. Flammables, Corrosives/Oxidizers, and Other waste streams remained constant year over year. Poisons, Fluorescent Lamps + Batteries, and Automotive Products saw increases between 1-2%, while Aerosols and Latex Paint decreased 1% and 4% respectively. For perspective, the 4% decrease in Latex Paint this year is equivalent to ~10 fewer gallons received per operating day for FY 2022/23.

Figure WC-3
Breakdown of Waste Shipped
by Weight (%) of Major Categories
Fiscal Year 2022/2023

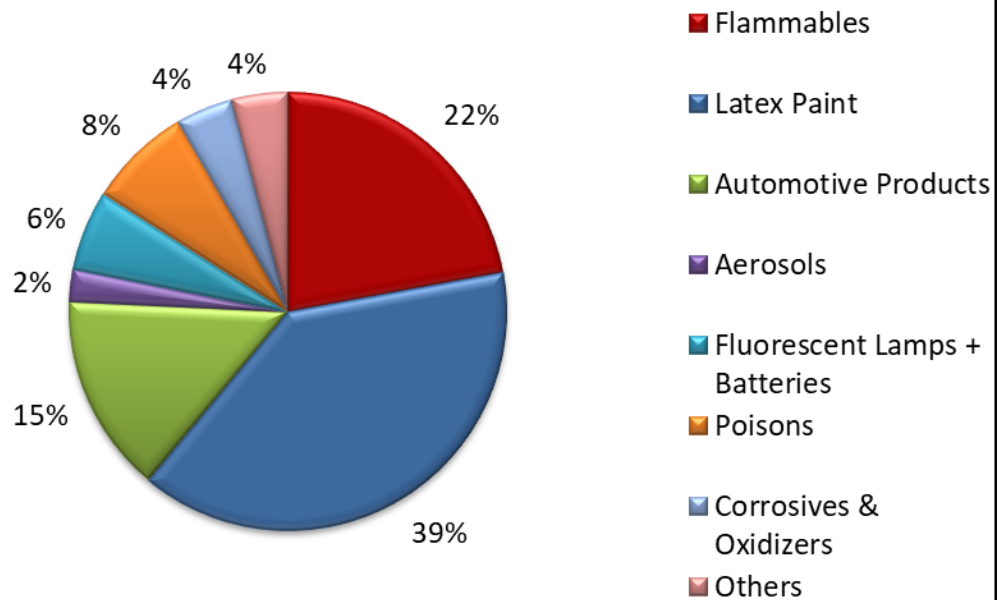


Figure WC-4 presents the distribution of hazardous wastes processed by the management method. Like WC-3, there were no significant changes to treatment method proportions. Over 85% of the hazardous waste collected was Recycled, used for Fuel, or offered as Reuse. Table WC-1 presents the estimated distribution of HHW collected by the community.

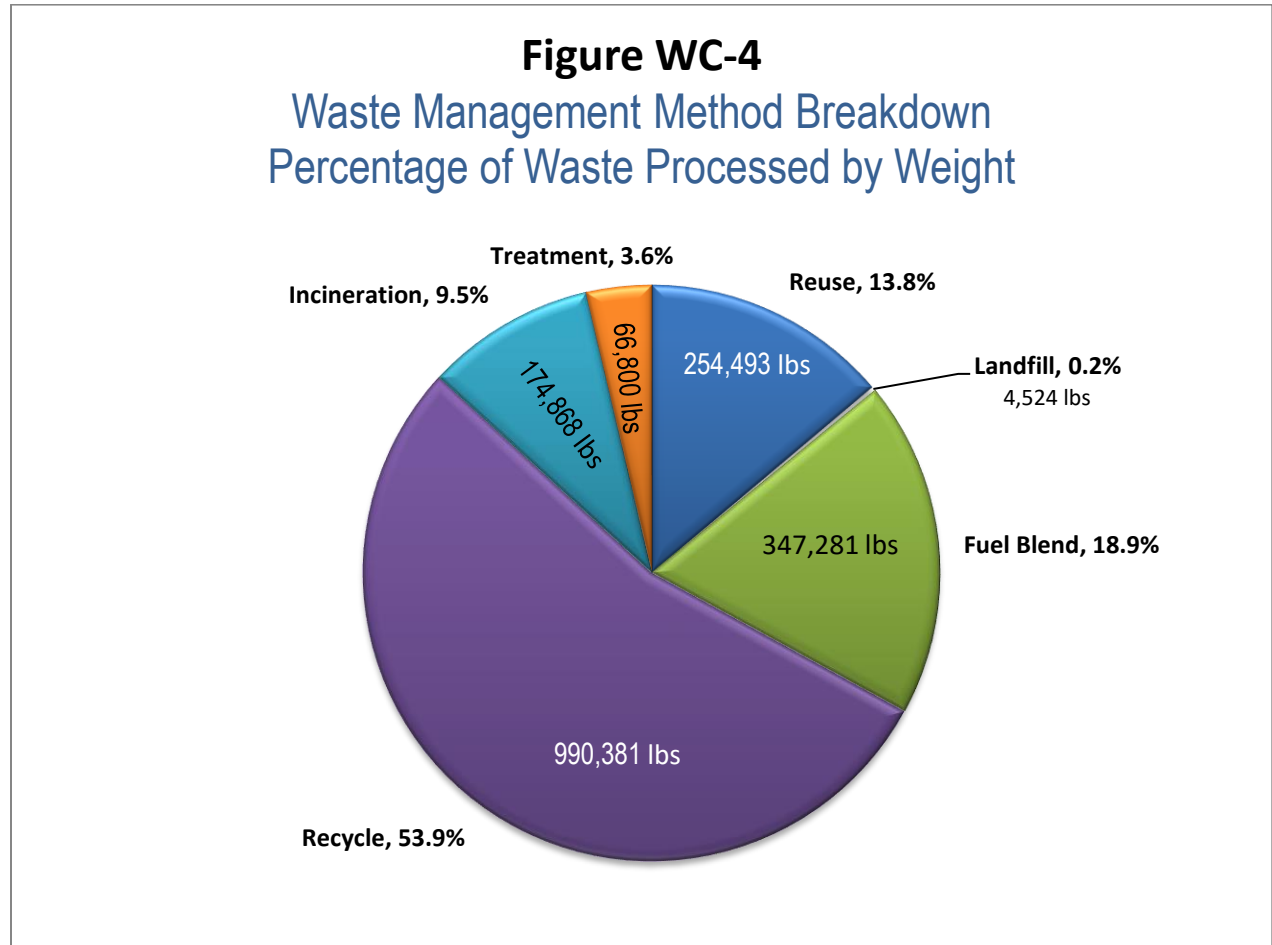


Table WC-1
Estimated Amount of Waste Collected by Community

Community	Number of Cars	Percent of Total Cars (rounded)	Estimated Amount of Waste Collected by Community (pounds)
Clayton	761	2.5%	46,130
Concord	6,560	21.6%	397,651
Danville	2,355	7.8%	142,754
Lafayette	2,130	7.0%	129,115
Martinez / Mt. View	5,654	18.6%	342,731
Moraga	877	2.9%	53,162
Orinda	1,134	3.7%	68,740
Pleasant Hill	2,915	9.6%	176,700
San Ramon	1,126	3.7%	68,255
Walnut Creek	4,965	16.4%	300,966
Unincorporated	1,603	5.3%	97,170
Subtotal	30,080	99.2%	1,823,374
Out of Service Area	247	0.8%	14,973
Total	30,327¹	100.0%	1,838,347²

- 1 The total number of cars includes 30,074 cars from the permanent facility, 62 Retail partnership drop-offs, and 191 business appointments.
- 2 The total weight collected includes disposed and reused from the permanent facility (residents, businesses, and retail).

POLLUTION PREVENTION EFFORTS

Central San’s Pollution Prevention (P2) program has evolved over the years to become an important component of our mission, which specifically includes P2 and reflects the growing importance of P2 for regulatory compliance. Central San is required to monitor and prevent certain pollutants from entering the influent wastewater. The HHW program helps prevent waste from reaching the sewer and tracks the amount diverted from the system.

Mercury Collection Program

The HHW program facilitates Central San’s promotion of proper mercury disposal by accepting all types of mercury, including elemental mercury, mercury-containing devices (e.g., fluorescent bulbs, batteries, mercury switches, and mercury thermometers), and mercury-containing compounds (paints and pesticides containing mercury).

Since the beginning of the mercury thermometer exchange program in 1999, more than 7,200 mercury thermometers have been collected and exchanged for non-mercury types. Table PP-1 describes the types of mercury-containing wastes tracked by HHW staff. This system closely estimates the quantities of mercury contained in fluorescent lamps, thermometers, thermostats, switches, and button-cell batteries. In FY 2022/23, the HHW program collected an estimated 47 pounds of elemental mercury contained in these types of wastes.

Table PP-1
FY 2022/23 Mercury Collection Summary

Mercury-Containing Devices	Number of Items	Units	Estimated Quantity of Mercury	Total Pounds Hg
Thermostats (3 Grams/unit)	43	Ea.	129 Grams	0.28
Thermometers (1 Grams/unit)	265	Ea.	265 Grams	0.58
Elemental Hg (Lbs.)	N/A	N/A	N/A	42.03
Switches	2.51	Lbs.		1.26
Mercury Batteries	225	Lbs.	703.13 Grams	1.55
Fluorescent Lamps	259,408	Feet	538.27 Grams	1.18
Total mercury (Hg) in Pounds				46.88
Paints, pesticides, and other compounds containing mercury	4	Container	Unknown	19.13

Other Pollutants

Additional pollutants of concern, such as legacy pesticides, are tracked separately to provide a more accurate report of collected compounds. Table PP-2 shows which pollutants of concern are tracked and the quantity collected in FY 2022/23.

Table PP-2
FY 2022/23 Pollutants of Concern Summary

Compound	Total Pounds
Tributyltin	69
Diazinon	1,767
Chlorpyrifos	1,500
Carbaryl	2,247
Copper	2,395
Pentachlorophenol / 2,4,5-T / Trichlorophenol	146
Lindane	11
Chlordane	304
DDT (DDE)	48
Dieldrin	1
Lead Compounds	152
Pyrethroids (pesticides)	12,345
Fats, Oils and Greases (FOG)	18,136
Polychlorinated biphenyls (PCBs) / Light ballasts	2,100
Total	41,221

Pharmaceutical Collection Program

Another way the HHW Program contributes to Central San's P2 program is by collecting unwanted or expired pharmaceuticals from residents. Pharmaceuticals can threaten our bays, rivers, and creeks as some of the compounds they contain cannot be entirely treated or removed by wastewater treatment plants. Pharmaceuticals can enter the sewer system by excretion from the body or customers dumping them down the drain. Since we cannot prevent unmetabolized medications from entering the treatment plant, we established a collection and disposal program for unwanted pharmaceuticals.

Table PP-3 describes the amount of pharmaceuticals collected by each site and the cost of collection and disposal during the year.

Table PP-3
FY 2022/23 Pharmaceutical Collection Summary

Collection Sites	Total Bins (18-Gallon)	Total Pounds	Average Lbs./Bin	Total Cost	*Average Cost/Lb.
Alamo	6	190	31.7	\$750	\$3.95
Danville	41	1710	41.7	\$5,125	\$3.00
Lafayette	6	191	31.8	\$875	\$4.58
Martinez	8	225	28.1	\$1,000	\$4.44
Sherriff FOB	55	1825	33.2	\$6,875	\$3.77
CCC Hospital	9	140	15.6	\$1,125	\$8.04
Walnut Creek	43	1,381	32.1	\$5,375	\$3.89
Total	168	5,662	33.7	\$21,125	\$3.73

*The variation in the average cost per pound is caused by the amount of packaging (jars, paper, cardboard, etc.) included in the collection bins. Bags for consolidating pills are offered at most collection sites but are not often used. The fullness of the container when it is picked up also affects the cost/lb.

Since the pharmaceutical program began in 2009, over 165,000 pounds of unwanted or expired medications have been collected and properly disposed of by incineration. In FY 2022/23, approximately 5,660 pounds were collected at the cost of \$21,200. There has been a consistent decline in the amount of medications collected by our pharmaceutical program primarily because of the increased number of collection locations in the HHW service area associated with Med-Project, the state-required manufacturer-sponsored pharmaceutical collection program. There are more than 40 Med-Project collection sites, including the six remaining Central San sites in the HHW service area.

* The following sites were converted to Med-Project as of the listed dates:

- | | |
|-------------------------------|--------------------------|
| San Ramon - November 2019 | Moraga - April 2022 |
| Clayton - June 2021 | Lafayette – January 2023 |
| Concord - June 2021 | Danville - March 2023 |
| Orinda – July 2021 | Martinez - July 2023 |
| Pleasant Hill - December 2021 | |

WASTES DIVERTED FROM SEWER AND LANDFILL DISPOSAL

The California Integrated Waste Management Act of 1989 (AB 939) requires the diversion of HHW from the municipal solid waste stream. AB 939 establishes a waste management hierarchy to minimize the amount of HHW sent to landfills through reduction, reuse, recycling, treatment, or incineration (fuel blending or destructive incineration). It diverts a minimum of 50 percent of solid waste from being landfilled. The emphasis is on reduction, reuse, and recycling whenever possible.

As a water quality agency, diverting hazardous waste from the sewers and storm drains is equally important. Although Central San's HHW program is not required to comply with AB 939, Central San's waste management strategy mirrors AB 939 by prioritizing reduction, reuse, recycling, and fuel blending, in that order, to the greatest extent feasible. All of which divert these wastes from being landfilled. The HHW program's progress toward sewer and landfill diversion for FY 2021/22 is outlined below.

Reused

The reuse room was open each operating day in FY 2022/23. During this time, 13.8% (254,493 lbs.) of the waste received was diverted to the reuse program and returned to the public because it was still a viable/usable product. As a result, the reuse program saved approximately \$105,000 in disposal costs. This savings is an approximate 4% increase, by weight, from the previous fiscal year.

Recycled

The waste recycled at off-site facilities includes latex paint, used motor oil/filters, antifreeze, car batteries, propane cylinders, fluorescent lamps, lead (scrap metal), mercury, household batteries, printer cartridges, and even home-generated cooking oil. Many of these recyclable waste streams are rebated or free for recycling.

Fuel Blended (Waste Derived Fuel)

In FY2022/23, a total of 347,281 pounds of oil-based paint and fuels (gasoline, paint thinners, etc.) was blended with other flammable hazardous wastes and used as a fuel source to make Portland cement. While fuel blending is lower in the waste management hierarchy than recycling, it is still a beneficial use that avoids using fossil fuels and prevents destructive incineration, treatment, or Class I landfill disposal. Table WD-1 shows the waste streams and

quantities of waste diverted from landfills.

Table WD-1
Quantity of Landfill Diverted Waste

Material Type	Quantity Recycled (Lbs.)
Motor oil and oil filters	160,345
Antifreeze	33,333
Car batteries	39,080
Fluorescent and LED lights	34,767
Compressed Gas Cylinders (Propane and Fire Extinguishers)	27,813
Scrap metal (lead, brass, and copper)	540
Printer cartridges	1,088
Mercury and Mercury Products	132
Household batteries	58,760
Latex Paint	616,250
Cooking Oil	18,136
Smoke Detectors	137
Total recycled waste	990,381
Reused HHW	254,493
Total recycled and reused	1,244,874
Percent of HHW reused or recycled	67.7%
Fuel Blended	
Oil-based paint	219,831
Other flammable liquids	127,450
Total fuel blended waste	347,281
Percent of waste fuel blended to total collected	18.9%
Total landfill-diverted waste	1,592,155
Percent of waste diverted from landfill	86.6%
Total waste collected, including reused, recycled, and disposed	1,838,347

SMALL BUSINESS PROGRAM

An essential component of the HHW program is the collection of hazardous wastes from small businesses. These businesses must meet the regulatory standards as a “Very Small Quantity Generator” (VSQG). This Small Business Program remains a cost-effective and convenient disposal option for small hazardous waste generators. Program statistics are in tables SB-1 and SB-2.

Revenue collected from small businesses is for hazardous waste disposal or recycling only and includes an administration fee of \$20 per appointment. Small business participation fluctuates from year to year, as does the revenue collected. See Appendix III for the current Small Business disposal charges.

Small Business Program outreach includes ongoing advertising in local chamber of commerce publications, Central San’s *Pipeline* newsletter, MVSD’s *Mt. View Monitor* newsletter, and business trade fairs. Central San’s Environmental Compliance Inspectors and Contra Costa County Hazmat Program Inspectors also share the opportunity while completing their fieldwork and onsite audits of the operations of eligible businesses.

Table SB-1
Small Business Participation by Community

Community	Fiscal Year 2022/23	Previous Year
Clayton	0	0
Concord	71	65
Danville	1	4
Lafayette	11	17
Martinez/ Mt. View	38	44
Moraga	3	3
Orinda	4	3
Pleasant Hill	17	14
San Ramon	9	8
Walnut Creek	26	40
Unincorporated	11	11
Outside of service area	0	0

TOTAL	191	209
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Table SB-2
Small Business Appointment Statistics

Fiscal Year	Number of Businesses Served	Number of <u>New</u> Businesses Served	Number of Appointments	Estimated Pounds of Waste Collected	Revenue per Pound of Waste	Revenue Collected
05/06	128	55	252	40,841	\$0.54	\$22,054
06/07	161	94	373	81,777	\$0.45	\$37,008
07/08	191	104	386	59,966	\$0.57	\$34,324
08/09	148	75	416	72,728	\$0.46	\$33,236
09/10	178	82	439	73,045	\$0.43	\$29,290
10/11	206	77	485	72,991	\$0.43	\$31,157
11/12	171	68	378	53,486	\$0.54	\$30,696
12/13	134	53	291	42,838	\$0.58	\$24,707
13/14	129	40	255	35,620	\$0.64	\$22,900
14/15	141	48	287	42,876	\$0.63	\$27,126
15/16	149	67	339	55,370	\$0.61	\$33,884
16/17	158	51	303	44,436	\$0.63	\$28,054
17/18	149	63	353	55,287	\$0.64	\$35,566
18/19	181	62	348	57,898	\$0.68	\$39,126
19/20	130	55	247	38,698	\$0.71	\$27,234
20/21	87	19	201	33,920	\$0.76	\$25,862
21/22	93	22	209	38,914	\$0.76	\$29,733
22/23	74	24	191	34,227	\$0.71	\$24,442

PUBLIC EDUCATION AND OUTREACH

HHW program participation has grown steadily since the first year of operation. It is publicized in each Central San Pipeline newsletter issue, mailed twice a year to more than 156,000 Central San residential and business customers. Additionally, MVSD, the Central Contra Costa Solid Waste Authority, and cities and organizations in the service area have used social media and newsletters to provide public education and promotion of the HHW program and its associated Pharmaceutical Disposal Program. With this promotional strategy, about 3.6

percent of the total residential participants during FY 2022/23 were first-time customers, and the remaining 96.4 percent were repeat customers.

REVENUE AND EXPENSES

The HHW program expenses for FY 2022/23 were \$3,194,983, or 7.3 percent more than last year. The increase is primarily due to District labor costs increasing by 6.6 percent and our waste services contract, which increased the incremental costs for waste disposal, contract labor, and related supplies by more than 30 percent. Contract labor costs rose considerably when prevailing wages were found to be required for non-“trade” positions performing work for most water-related special districts.

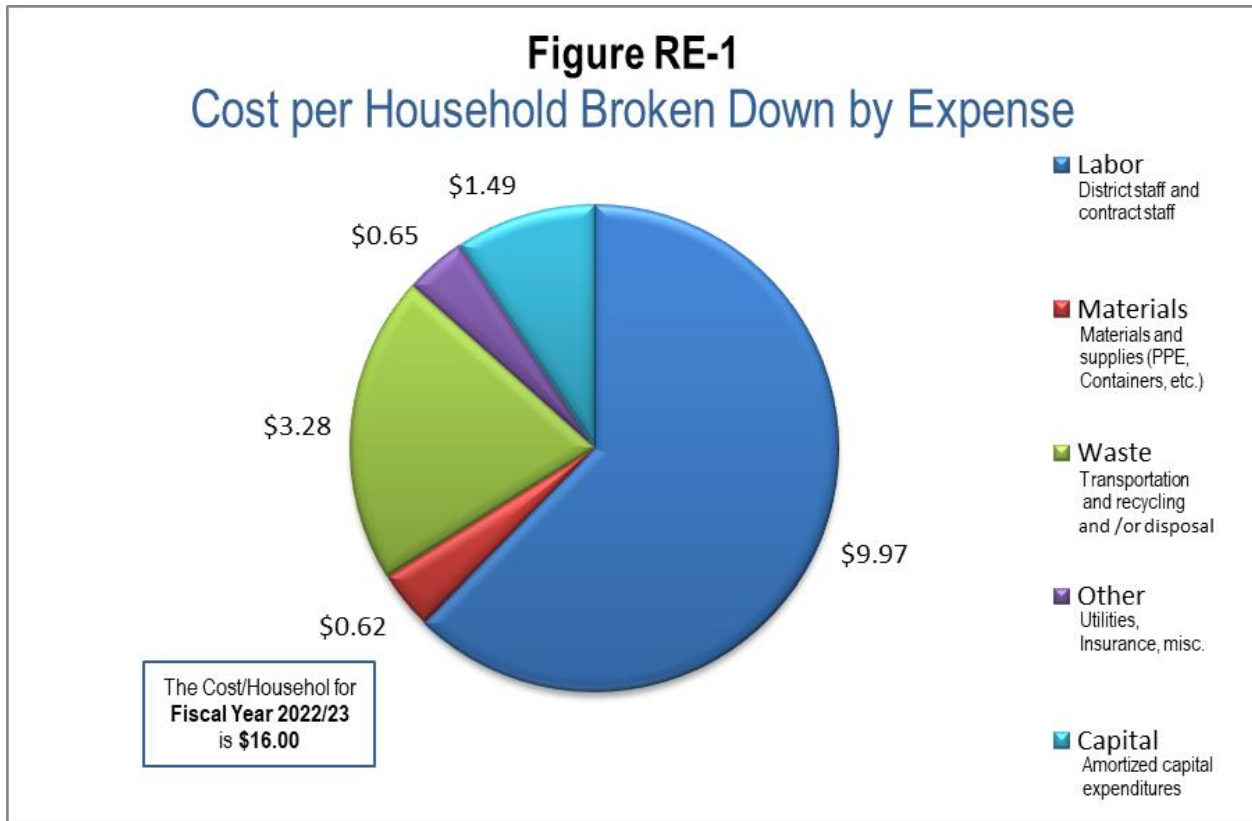
Waste disposal costs have remained high since August 2021, when US EPA issued a notice explaining a nationwide backlog and warned the hazardous waste disposal market was under stress and was not expected to recover until the summer of 2022. US EPA extended that warning in May 2022 and again in July 2023, saying the backlog remains in effect. There is no timeframe for when the backlog will be cleared; however, we have started to see some signs that the lingering issues have started to ease.

Beginning this year, we are focusing on the cost per household rather than the cost per car, as the cost per household represents what Central San customers pay as part of their sewer service charge. For the past 25 years, we’ve reported the cost per car as the gauge to value our customers’ expenses, but it only represents what it would cost if each HHW customer had to pay at the time of service. It is unreasonable to continue to report a cost of \$80-100 per car that is not actually charged to our customers. It will remain in the report for historical purposes only.

For FY 2022/23, the cost per household was \$16.00. This means that \$16.00 of each annual sewer service charge allowed residents unlimited access to the HHW facility, Reuse Room, Pharmaceutical Collection Program, and the residential recycled water fill station. All were open and available seven hours a day, six days per week, and for 295 days. This cost per household is slightly more than FY 2021/22’s \$14.99 per household due to the cost increases mentioned previously. Although not included in the cost of the HHW program, the Residential Recycled Water Fill Station is conveniently positioned at the HHW facility, and its operation and staff are overseen by HHW staff.

Figure RE-1 Shows the operating cost per household in the HHW service area broken down

by expense category.



Tables and Figures

- Figure RE-2 lists the cost per household for each year the HHW program has been in operation.
- Figure RE-3 shows the current and historical operating cost per pound of waste collected.
- Figure RE-4 shows the historical cost per car.
- Table RE-1 presents a full summary of revenue and expenses for the HHW Program for FY 2022/23.

Figure RE-2
HHW Program Annual Cost per Household 1997-Present

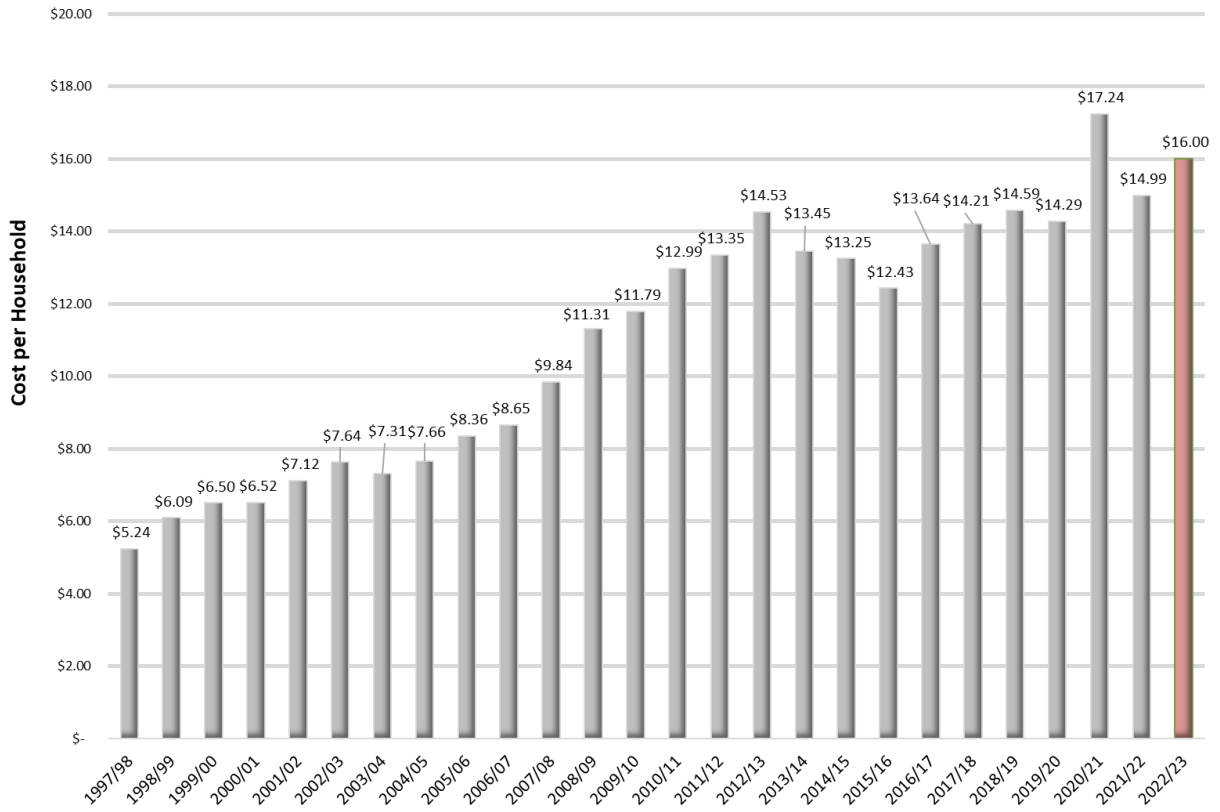


Figure RE-3
Operating Cost per Pound of Waste Collected

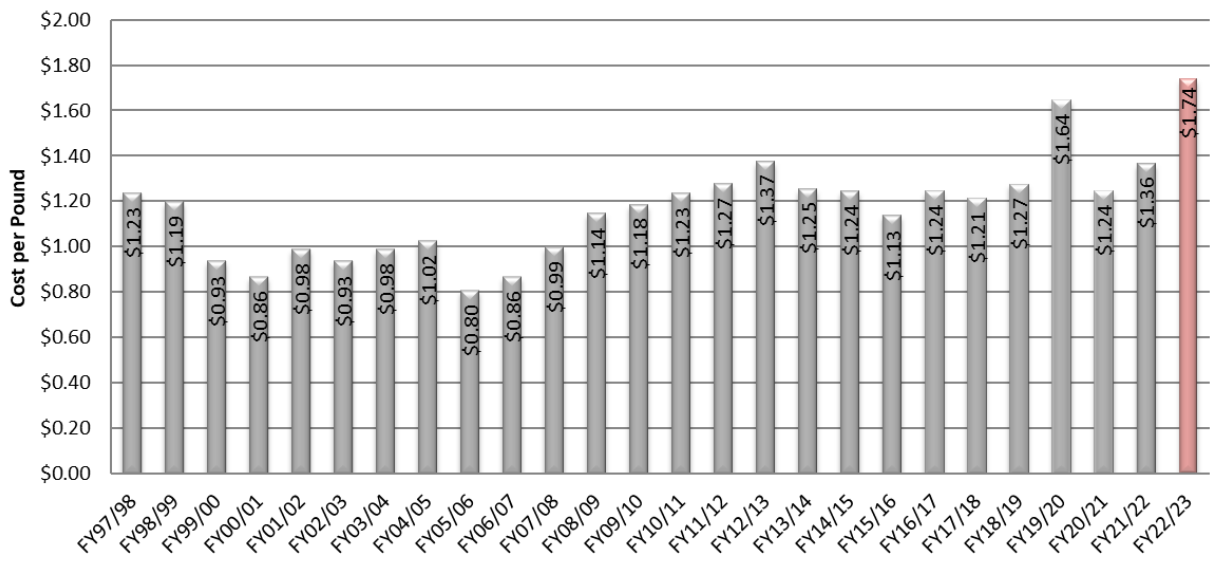


Figure RE-4
Operating Cost per Car

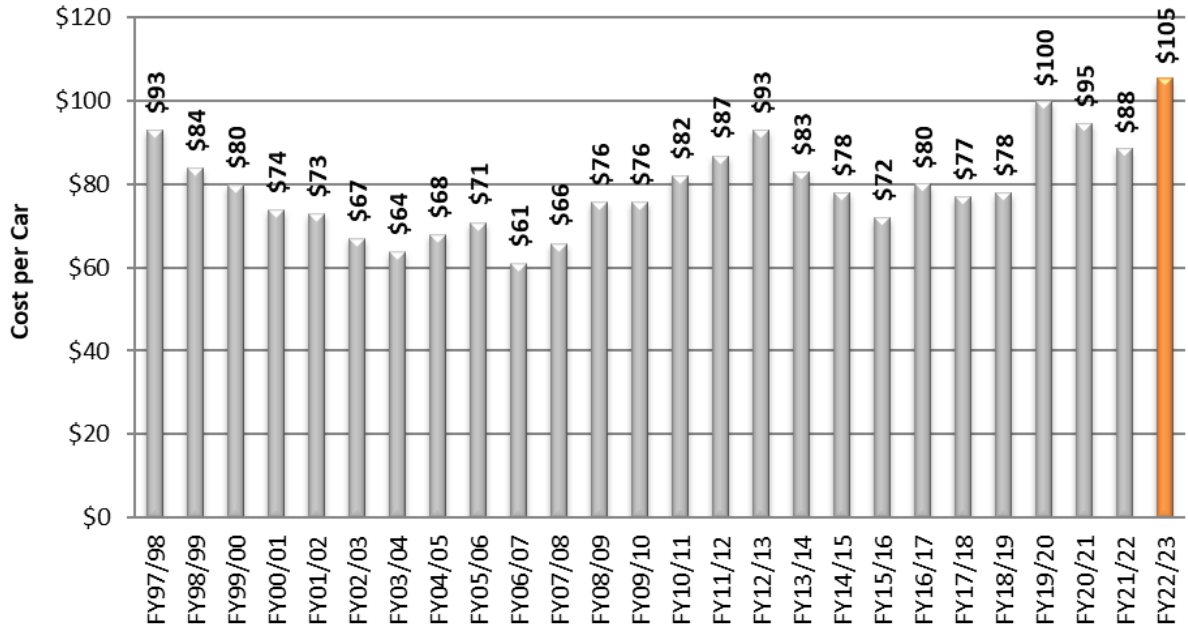


Table RE-1

Household Hazardous Waste Collection Facility
2022/23 Summary of Revenue and Expenses

Revenue	<u>FY 2021/22</u>	<u>FY 2022/23</u>
Central San Sewer Service Charges:	\$ 1,982,215	\$ 2,141,866
Service Agreements with other jurisdictions:	<u>FY 2021/22</u>	<u>FY 2022/23</u>
Mt. View Sanitary District	\$ 132,934	\$ 140,288
City of Concord	683,638	745,355
City of Clayton	60,865	66,004
City of San Ramon	<u>33,812</u>	<u>22,812</u>
	\$ 911,250	\$ 974,459
Sale of collected materials and CESQG Charges:	\$ 60,353	\$ 54,780
Transfer portion of revenue to Self-Insurance for Insurance Policy:	<u>\$ 22,749</u>	<u>\$ 23,878</u>
TOTAL REVENUE	<u>\$ 2,976,567</u>	<u>\$ 3,194,983</u>
 Expenses		
	<u>FY 2021/22</u>	<u>FY 2022/23</u>
Salaries, benefits, and overhead (HHW Staff)	\$ 1,677,892	\$ 1,788,900
Environmental liability premiums	74,856	78,986
Utilities	16,601	18,724
Repairs and maintenance	22,669	7,242
Transportation and disposal	661,002	654,273
Professional, technical, and legal services	112,357	214,027
Materials and supplies	98,021	123,278
Other expenses	<u>15,128</u>	<u>11,512</u>
TOTAL OPERATING EXPENSES	\$ 2,678,525	\$ 2,896,942
Amortization of Capital Expenditures	<u>298,041</u>	<u>298,041</u>
TOTAL EXPENSES	<u>\$ 2,976,567</u>	<u>\$ 3,194,983</u>

Amortization of Capital Expenditures

Amortization of Capital Expenditures is derived from the capital costs to build the collection facility, and all capital improvements amortized over 30 years. No capital expenditures were added to the facility in FY 2022/23. Table RE-2 shows the amortization schedule of all capital expenditures since the completion of the HHW facility in 1997.

Table RE-2

HHW Facility Capital Expenditure Amortization Schedule

Years	Fiscal Year Ending	Original Construction	Improvement Projects - District Project (DP)					Total
			DP 8180	DP 8197 & 8204	DP 8209 & 7229	DP 8216	DP 7256	
		\$ 1,900,000	\$ 427,368	\$ 32,492	\$ 319,393	\$ 1,422,353	\$ 3,085	\$ 4,104,691
1	1998	\$ 138,035						138,035
2	1999	138,035						138,035
3	2000	138,035						138,035
4	2001	138,035						138,035
5	2002	138,035						138,035
6	2003	138,035						138,035
7	2004	138,035	\$ 31,048					169,083
8	2005	138,035	31,048	\$ 2,361				171,444
9	2006	138,035	31,048	2,361				171,444
10	2007	138,035	31,048	2,361	\$ 23,204			194,648
11	2008	138,035	31,048	2,361	23,039			194,483
12	2009	138,035	31,048	2,361	23,039			194,483
13	2010	138,035	31,048	2,361	23,039			194,483
14	2011	138,035	31,048	2,361	23,039	\$ 103,334		297,817
15	2012	138,035	31,048	2,361	23,039	103,334		297,817
16	2013	138,035	31,048	2,361	23,039	103,334	\$ 224	298,042
17	2014	138,035	31,048	2,361	23,039	103,334	224	298,041
18	2015	138,035	31,048	2,361	23,039	103,334	224	298,041
19	2016	138,035	31,048	2,361	23,039	103,334	224	298,041
20	2017	138,035	31,048	2,361	23,039	103,334	224	298,041
21	2018	138,035	31,048	2,361	23,039	103,334	224	298,041
22	2019	138,035	31,048	2,361	23,039	103,334	224	298,041
23	2020	138,035	31,048	2,361	23,039	103,334	224	298,041
24	2021	138,035	31,048	2,361	23,039	103,334	224	298,041
25	2022	138,035	31,048	2,361	23,039	103,334	224	298,041
26	2023	138,035	31,048	2,361	23,039	103,334	224	298,041
27	2024	138,035	31,048	2,361	23,039	103,334	224	298,041
28	2025	138,035	31,048	2,361	23,039	103,334	224	298,041
29	2026	138,035	31,048	2,361	23,039	103,334	224	298,041
30	2027	138,035	31,048	2,361	23,039	103,334	224	298,041
	2028		31,048	2,361	23,039	103,334	224	160,006
	2029		31,048	2,361	23,039	103,334	224	160,006
	2030		31,048	2,361	23,039	103,334	224	160,006
	2031		31,048	2,361	23,039	103,334	224	160,006
	2032		31,048	2,361	23,039	103,334	224	160,006
	2033		31,048	2,361	23,039	103,334	224	160,006
	2034			2,361	23,039	103,334	224	128,958
	2035				23,039	103,334	224	126,597
	2036				23,039	103,334	224	126,597
	2037					103,334	224	103,558
	2038					103,334	224	103,558
	2039					103,334	224	103,558
	2040					103,334	224	103,558
	2041						224	224
	2042						224	224
		\$ 4,141,050	\$ 931,449	\$ 70,830	\$ 691,341	\$ 3,100,020	\$ 6,272	\$ 8,940,961

Rate = 6 percent amortized over 30 years.



APPENDIX II

CESQG CHARGES



**SCHEDULE OF HAZARDOUS WASTE HANDLING
AND DISPOSAL CHARGES FOR CONDITIONALLY
EXEMPT SMALL QUANTITY GENERATORS**

(Revision date 11/5/99)

Waste Category (Packaging Method)	Example Waste Materials		Per Pint Container¹	Per Quart Container¹	Per 1 Gallon Container¹	Per 5 Gallon Container¹	Other Unit Charges
Antifreeze (Bulked)	Uncontaminated for recycle						\$1.40/gal
Latex Paint (Bulked)	Latex-based paints, stains						\$2.50/gal
Motor Oil (Bulked)	Uncontaminated for recycle						\$0.28/gal.
Aerosols Hazard Class 2 (Loosepack)	Spray Paints Insecticides Aerosol Cleaners		\$1.65	\$3.30			
Flammable/ Combustible Materials: Fuels Blending Hazard Class 3.0 (Loosepack) (Bulked option for some wastes) ²	<u>Paint Related Material:</u> Oil- Based Paint/Stains Varnishes	Solvents Thinners	\$0.50	\$1.00	\$3.40	\$20.50	\$2.50/gal. ²
	Adhesives Alcohol Brush Wash Diesel Epoxy Resins Gasoline/Fuels Grease	Glues Ink/Toners Polishes White Gas Methanol Roof Tar Sealers	\$0.50	\$1.00	\$3.75	\$30.00	\$2.50/gal. ²

Waste Category (Packaging Method)	Example Waste Materials		Per Pint Container ¹	Per Quart Container ¹	Per 1 Gallon Container ¹	Per 5 Gallon Container ¹	Other Unit Charges
Corrosives, Oxidizers, Acids, Bases: Neutralization/ Treatment Hazard Class B (Labpack)	Acetic Acid Ammonia Citric Acid Corrosives Potassium Hydroxide Sodium Hydroxide	Ferric Chloride Formic Acid Hydrochloric Acid Hydrofluoric Acid Hypochlorite Caustics	\$1.20	\$2.40	\$9.50	\$47.50	
Poisons, Toxic Materials: Incineration Hazard Class 6, 3(6) (Labpack)	Insecticides Pesticides Flammable Pesticides	Herbicides Toxic Lab Chemicals	\$1.70	\$3.40	\$13.50	\$67.50	
Contaminated Solids, Other Hazardous Materials: Landfill Hazard Class 9, Non-RCRA (Labpack or Loosepack)	Non-RCRA Hazardous Wastes Fertilizers Absorbents		\$0.65	\$1.30	\$5.25	\$26.50	
Reactives Hazard Class 4 (Labpack)	Cyanides Dangerous when wet	Sulfides Bromine Spontaneously combustible	\$2.50	\$5.00	\$20.00	\$99.00	
Asbestos (Loosepack)	Double bagged friable asbestos wastes						\$120 per cubic yard

Waste Category (Packaging Method)	Example Waste Materials		Per Pint Container¹	Per Quart Container¹	Per 1 Gallon Container¹	Per 5 Gallon Container¹	Other Unit Charges
Household Batteries Hazard Class 8, 9 (Loosepack)	Alkaline Lithium	Nickel Cadmium Silver Oxide					\$0.10 each
Oil Filters (Loosepack)	Automotive and truck/tractor filters						\$1.00 each
Vehicle Batteries (Not packaged)	Unbroken/non leaking lead-acid batteries						No Charge
Fluorescent Tubes (Loosepack)							\$0.15/ft.
Propane Cylinders (Loosepack)	5 gallon "BBQ" style					\$5.00	
Propane Cylinders (Loosepack)	Smaller than 5-gallon cylinders		\$1.40	\$2.75	\$11.00		

¹ Prices are based on container size regardless of how full; containers of other than the specified sizes will be charged at an interpolated or prorated price.

² This rate will be available when the bulking of flammable liquids can be performed at the facility. Flammable liquids that cannot be bulked will be charged the rate based on the container size.

Note: Each CESQG shall be charged an Administration Fee of \$20.00 for each drop-off in addition to the above handling and disposal charges.

(Ord. 229 Exh. A (part), 2004: Ord. 212 § 1 Exh. A, 1999: Ord. 206 Exh. A, 1999

A woman with dark hair pulled back, wearing safety glasses and a blue work jacket, is pouring a yellowish liquid from a white plastic jug into a metal grate. She is wearing blue gloves. The background shows a concrete wall with a large number '7'.

APPENDIX I

F303 FORM



Form CalRecycle 303 Household Hazardous Waste Collection Information For 2022-2023

Name of Public Agency Reporting: Central Contra Costa Sanitary District
HHW Program Manager: David Wyatt ,HHW Program Supervisor
Address: Regulatory and Environmental Compliance Division 5019 Imhoff Place Martinez, CA 94553
Phone Number: (925) 335-7714
Fax Number: (925) 370-8647
Email: dwyatt@centralsan.org
Contractor's Name: ACTenviro
Participating Households: 30,327 **Method:** Number of Vehicles
 Participating Households includes non-residential (CESQG,schools,nonprofits,etc.): Yes
Service Area Households: 199,653 Different than Finance E-5 report

Participants Represented by Reporting Jurisdiction/Agency (i.e., individual city(ies), county(ies), other agency(ies)):

Clayton	Concord	Contra Costa-Unincorporated	Danville	Lafayette
Martinez	Moraga	Orinda	Pleasant Hill	San Ramon
Walnut Creek				

Permanent Facilities within Program Service Area:

Facility Name	EPAID	Site Contact	Phone	Facility Address	County
Central Contra Costa Sanitary District	CAH111000541	David Wyatt	(925) 335-7714	4797 Imhoff Place Martinez, CA 94553	Contra Costa

Program Types:

Program Type	EPAID	Program Type	EPAID	Program Type	EPAID	Program Type	EPAID
Permanent Facility	CAH111000541	Retail - Ace Hardware Walnut Creek - Ygnacio		Retail - Ace Hardware Walnut Creek - Mt. Diablo		Retail - Ace Hardware Alamo	
Retail - Ace Hardware Clayton		Retail - Ace Hardware Martinez		Retail - Ace Hardware Blackhawk		Pharmaceutical Collection - Danville PD	
Pharmaceutical Collection - Martinez PD		Pharmaceutical Collection - Walnut Creek PD		Pharmaceutical Collection - CCC Sheriff FOB		Pharmaceutical Collection - CCC Regional Medical Center	
Pharmaceutical Collection - Alamo Substation		Pharmaceutical Collection - Lafayette PD					



DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

1001 I STREET, SACRAMENTO, CALIFORNIA 95814 • www.CalRecycle.ca.gov • (916) 322-4027
 P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

Collection (pounds)	Material Type	Permanent Facility	Temporary (periodic) Facility	Mobile Facility	Recycle-only Facility	Door to Door (residential) Program	Curbside Program	Load Check	Other
Flammable and Poison	Flammable solids / liquids	91,511							
	Bulked flammable liquids	38,700							
	Oil-based paints	92,162							
	Paint Related Material (PRM)	144,750							
	Poisons	121,000							
	Reactive and explosive	117							
	Compressed gas cylinders	23,125							
	1 lb propane canister	4,688							
	Flammable and Poison subtotal	516,053							
PCB-containing	PCB-containing paint								
	Other PCB waste (includes ballasts)	2,100							
	PCB-containing subtotal	2,100							
Reclaimable	Antifreeze	33,333							
	Auto type batteries (motor vehicles)	39,080							
	Latex paint	710,517							
	Motor oil/oil products	155,680							
	Used oil filters (recyclables only)	4,665							
	Reclaimable subtotal	943,275							
Acid	Inorganic and organic acid	21,000							
Base	Inorganic and organic base	35,500							
Oxidizer	Neutral oxidizers, Organic peroxides, Oxidizing acid/base	10,332							
Asbestos	Asbestos	4,500							
Universal Waste (UW)*	Mercury containing automatic switches / thermometers / and novelties	102							
	Mercury containing thermostats	30							
	Mercury containing waste (other)								
	Lamps	28,594							4,282
	Photovoltaic Modules								
	Other batteries	38,234							12,176
	Aerosol cans	37,800							
Rechargeable batteries	8,350								



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Collection (pounds)	Material Type	Permanent Facility	Temporary (periodic) Facility	Mobile Facility	Recycle-only Facility	Door to Door (residential) Program	Curbside Program	Load Check	Other
Electronic Devices (UW)	Covered Electronic Devices								
	Other Electronic Devices								
	Electronic Devices (UW) subtotal								
Universal Waste (UW)* + Electronic Devices (UW) subtotal		113,110							16,458
Other	Home-generated sharps waste	24							
	Home-generated pharmaceutical waste								5,662
	Treated wood								
	Cooking Oil	18,136							
	LED Lighting	1,891							
	Non-PCB Ballasts	5,396							
	Other								
	Printer Cartridges	1,088							
	Scrap Metal (Pb)	540							
	Smoke Detectors	137							
Reuse Total	143,145								
Other subtotal		170,357							5,662
Grand Total		1,816,227							22,120



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Disposition (pounds)	Material Type	Destructive Incineration	Fuel Incineration	Landfill	Neutralization / Treatment	Recycled	Reused	Stabilization	Steward
Flammable and Poison	Flammable solids / liquids	5,239	86,272						
	Bulked flammable liquids		38,700						
	Oil-based paints						17,081		75,081
	Paint Related Material (PRM)		144,750						
	Poisons	121,000							
	Reactive and explosive	117							
	Compressed gas cylinders	4,761					18,364		
	1 lb propane canister						4,688		
Flammable and Poison subtotal		131,117	269,722			23,052	17,081		75,081
PCB-containing	PCB-containing paint								
	Other PCB waste (includes ballasts)			2,100					
	PCB-containing subtotal				2,100				
Reclaimable	Antifreeze					33,333			
	Auto type batteries (motor vehicles)					39,080			
	Latex paint						94,267		616,250
	Motor oil/oil products					155,680			
	Used oil filters (recyclables only)					4,665			
	Reclaimable subtotal						232,758	94,267	
Acid	Inorganic and organic acid	5,250			15,750				
Base	Inorganic and organic base	5,325			30,175				
Oxidizer	Neutral oxidizers, Organic peroxides, Oxidizing acid/base	5,683			4,649				
Asbestos	Asbestos			4,500					
Universal Waste (UW)*	Mercury containing automatic switches / thermometers / and novelties					102			
	Mercury containing thermostats					30			
	Mercury containing waste (other)								
	Lamps					32,876			
	Photovoltaic Modules								
	Other batteries					50,410			
	Aerosol cans	12,474	25,326						
	Rechargeable batteries					8,350			



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 P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

Disposition (pounds)	Material Type	Destructive Incineration	Fuel Incineration	Landfill	Neutralization / Treatment	Recycled	Reused	Stabilization	Steward
Electronic Devices (UW)	Covered Electronic Devices								
	Other Electronic Devices								
	Electronic Devices (UW) subtotal								
Universal Waste (UW)* + Electronic Devices (UW) subtotal		12,474	25,326			91,768			
Other	Home-generated sharps waste			24					
	Home-generated pharmaceutical waste	5,662							
	Treated wood								
	Cooking Oil					18,136			
	LED Lighting					1,891			
	Non-PCB Ballasts			5,396					
	Other								
	Printer Cartridges					1,088			
	Scrap Metal (Pb)					540			
	Smoke Detectors					137			
	Smoke Detectors								
	Reuse Total							143,145	
Other subtotal		5,662		5,420		21,792	143,145		
Grand Total		165,511	295,048	12,020	50,574	369,370	254,493		691,331



APPENDIX III

HHW PROGRAM HISTORY: 1997 TO PRESENT

