



HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAM

ANNUAL REPORT 2021/2022



THE FOLLOWING CENTRAL SAN STAFF CONTRIBUTED TO THE PREPARATION OF THIS REPORT:

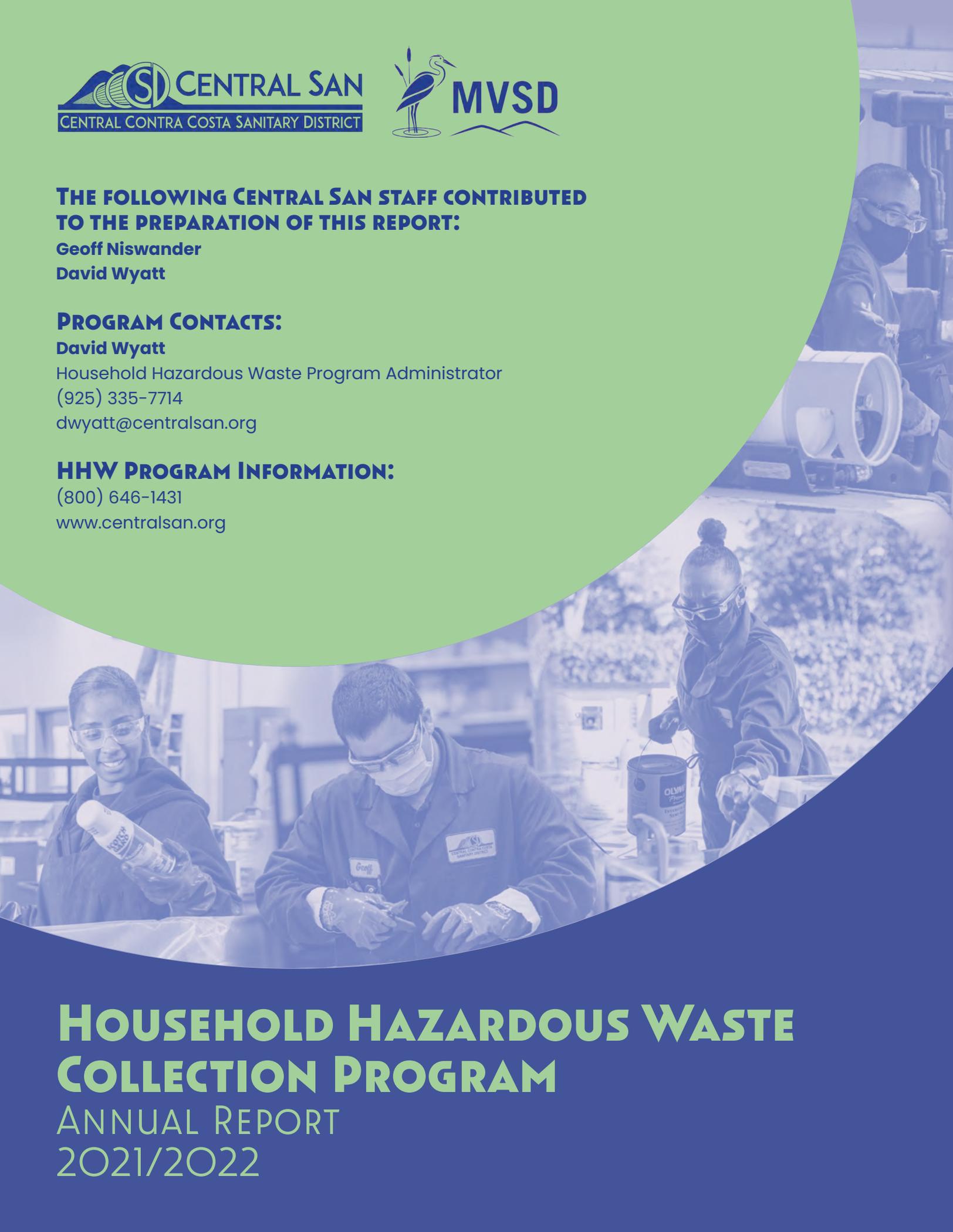
Geoff Niswander
David Wyatt

PROGRAM CONTACTS:

David Wyatt
Household Hazardous Waste Program Administrator
(925) 335-7714
dwyatt@centralsan.org

HHW PROGRAM INFORMATION:

(800) 646-1431
www.centralsan.org



**HOUSEHOLD HAZARDOUS WASTE
COLLECTION PROGRAM**
ANNUAL REPORT
2021/2022

2021/2022 Household Hazardous Waste Collection Program

Annual Report

Table of Contents

TABLES AND FIGURES	3
INTRODUCTION	4
RESIDENTIAL PARTICIPATION	5
SAN RAMON DOOR-TO-DOOR COLLECTION PROGRAM	10
WASTE VOLUMES	12
POLLUTION PREVENTION EFFORTS	16
WASTES DIVERTED FROM SEWER AND LANDFILL DISPOSAL	19
SMALL BUSINESS PROGRAM	21
PUBLIC EDUCATION AND OUTREACH	22
REVENUE AND EXPENSES	23

Appendices:

AI	California Integrated Waste Management Board Form 303
All	Conditionally Exempt Small Quantity Generator Disposal Charges
Alll	HHW Program History – 1997 to Present

2021/2022 Household Hazardous Waste Collection Program

Annual Report

TABLES AND FIGURES

Table	Description/Title	Page No.
RP-1	Residential Participation by Community	8
RP-2	Total participation by Community	9
SR-1	San Ramon Door-to-Door Program	11
WC-1	Estimate of Amount of Waste Collected by Community	15
PP-1	Mercury Collection Summary	16
PP-2	Pollutants of Concern Summary	17
PP-3	Pharmaceutical Collection Summary	18
WD-1	Quantity of Landfill Diverted Waste	20
SB-1	Small Business Participation by Community	21
SB-2	Small Business Appointment Statistics	22
RE-1	HHWCF Summary of Revenue and Expenses	26
RE-2	HHW Facility Capital Expenditure Amortization Schedule	27

Figure	Description/Title	Page No.
RP-1	HHWCF Participation: Cars per Month	6
RP-2	HHWCF Participation: Average Cars per Day of Week	6
RP-3	HHWCF Participation: Average Cars per Day	7
WC-1	Pounds of Waste per Car	12
WC-2	Waste Disposal per Month	13
WC-3	Breakdown of Waste Shipped by Weight (%) of Major Categories	14
WC-4	Waste Management Method Breakdown % of Waste Processed by Weight	14
RE-1	Operating Cost per Car	24
RE-2	Cost per Car Broken Down by Expense	24
RE-3	Operating Cost Per Pound of Waste Collected	25
RE-4	Participation and Expenses	28
RE-5	HHW Program Estimated Cost per Household	29

INTRODUCTION

This summary report of the Household Hazardous Waste (HHW) Program for fiscal year (FY) 2021/22 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 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 2021/22, 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 wastes 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 plants are operating at peak efficiency and eliminates chemical wastes from flowing through treatment processes that are 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 is completing its 25th year of operation. The HHW Program serves all central Contra Costa County, which is comprised of 198,619 households, with a population of approximately 517,600. Program participation has increased steadily from the 7.8 percent of households served during the opening year in FY 1997/98, to as much as 18.4 percent in FY 2018/19. In FY 2019/20, that figure fell to 14.0 percent due to the three-month closure from March 16 to June 15, 2020, during the COVID-19 pandemic. Participation rebounded in FY 2020/21 to 17.9 percent, while having record participation in September and October. FY 2021/22 showed a decrease in HHW participation of 5.6 percent (35,348 to 33,376 customers) and an increase in total occupied households within the service area of 1.6 percent (195,540 to 198,619 households), when compared to the previous fiscal year. 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 31,856 customer, 16.52 percent participation, and 192,445 total households, respectively.²

The HHW Collection Facility was open to the public and operational for 293 days during FY2021/22 with only 1 unscheduled shutdown (3.5 days) due to COVID-19 in May 2022. Seasonal participation patterns appear to have resumed 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 with 3,446 and 1,641 customers served, respectively. The reuse room was open during all operating days and was used by approximately 14,000 customers. Figure RP-1 shows HHW program participation monthly.

² A ten-year standard deviation of 2,652 customers, 1.32 percent HHW participation, and 2,318 total households was calculated as well.

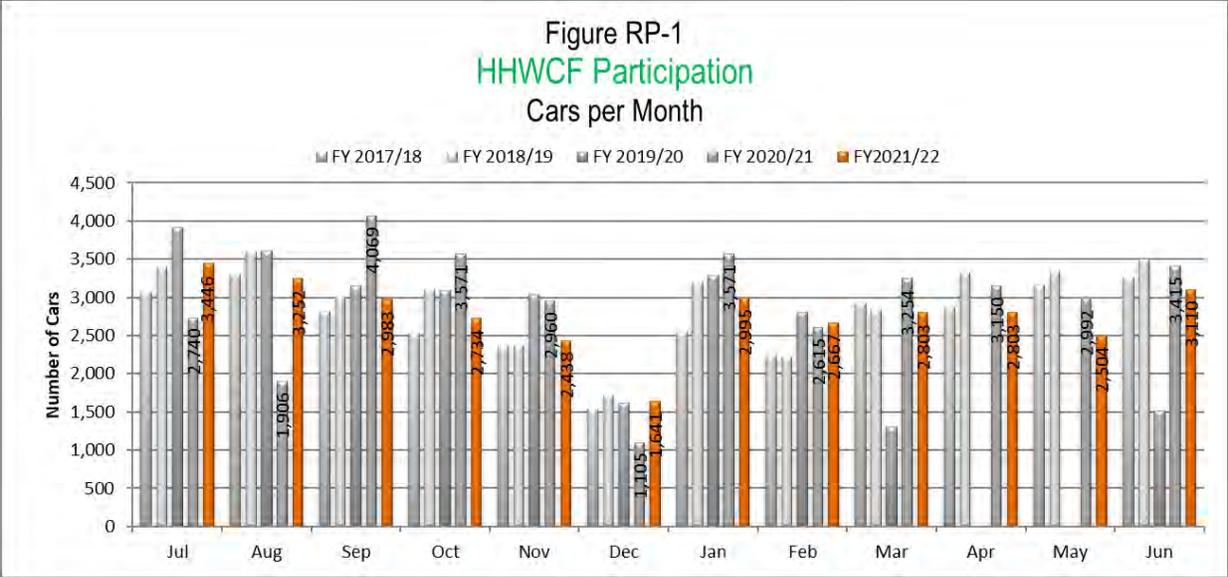


Figure RP-2 presents the average residential participation for each day of operation, Monday through Saturday. Average cars per workday decreased from the prior fiscal year, which had record numbers coming out of the pandemic caused facility closure but appear to be returning to previous averages with the bulk of customers dropping off waste at the end of the work week, as shown in Figure RP-2.

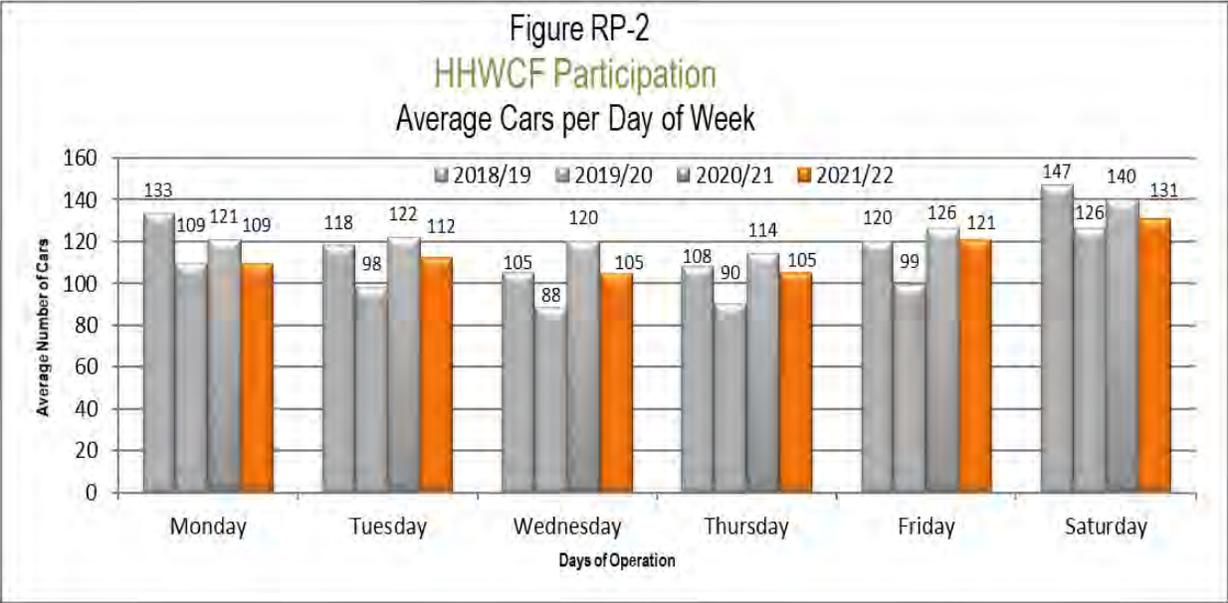


Figure RP-3 presents a comparison of the average number of cars per operating day since the HHW facility opened. This data serves as a tool for planning staffing levels through the different seasons and to promote the facility's services. FY 2021/22 showed a slight decrease to 114 cars per day from 124 cars per day in FY 2020/21, but the previous ten-year average (including FY 2019/20) was 110 cars per day with a standard deviation of 9.

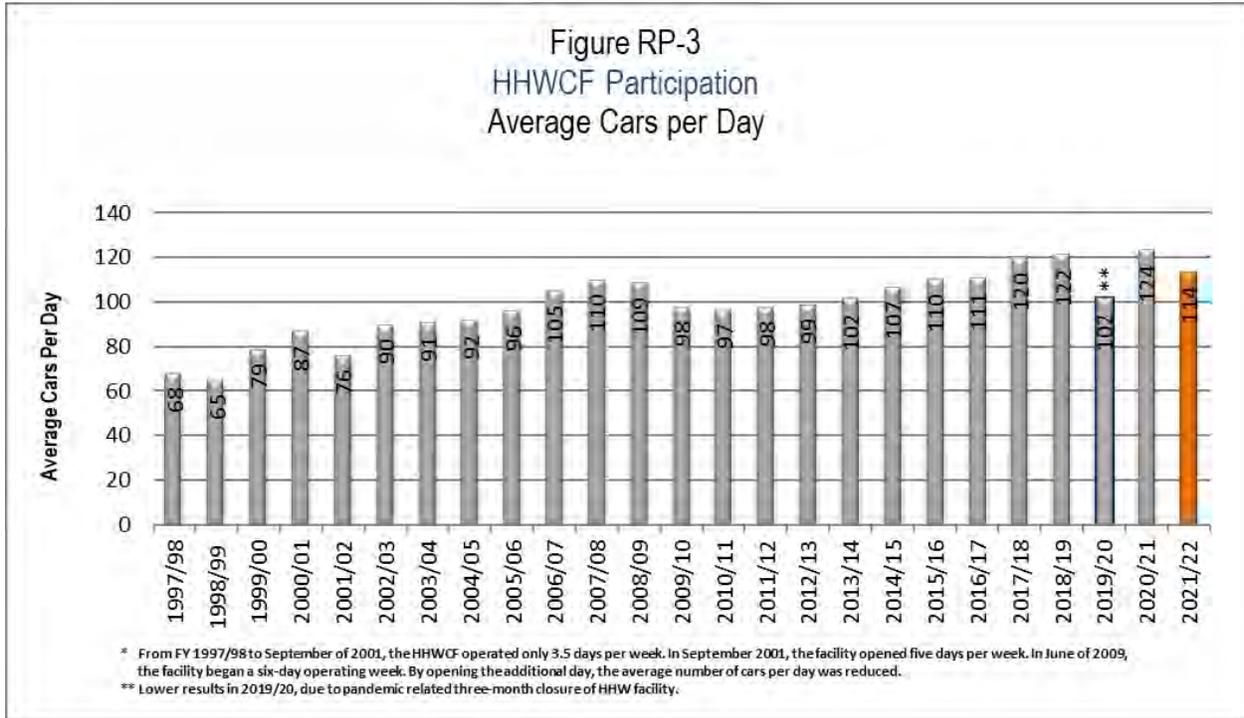


Table RP-1
Residential Participation by Community
Fiscal Year 2021/22

Community	¹ Number of Households	HHW Facility Participation	% of Community Served	
Clayton	4,085	859	21.0%	
Concord	45,883	7,144	15.6%	
Danville	15,791	2,670	16.9%	
Lafayette	9,536	2,384	25.0%	
Martinez/ MVSD	14,905	5,906	39.6%	
Moraga	5,735	1,016	17.7%	
Orinda	7,064	1,278	18.1%	
Pleasant Hill	13,961	3,307	23.7%	
San Ramon	28,654	1,271	4.4%	8.2%
² San Ramon	28,654	1,089	3.8%	
Walnut Creek	32,528	5,584	17.2%	
Unincorporated	20,477	1,715	8.4%	
Subtotal	198,619	33,134	16.7%	
³ Out of Service Area	N/A	⁴ 242	N/A	
Total	198,619	33,376	N/A	

¹ Central San estimate based on January 2022 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, but it should be noted that the number of participants that were 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 was 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 of 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 2021/22

Community	¹ Number of Households	% of Households in Service Area	HHW Facility Participation	% of Total Served
Clayton	4,085	2.1%	859	2.6%
Concord	45,883	23.1%	7,144	21.6%
Danville	15,791	8.0%	2,670	8.1%
Lafayette	9,536	4.8%	2,384	7.2%
Martinez/ MVSD	14,905	7.5%	5,906	17.8%
Moraga	5,735	2.9%	1,016	3.1%
Orinda	7,064	3.6%	1,278	3.9%
Pleasant Hill	13,961	7.0%	3,307	10.0%
San Ramon	28,654	14.4%	1,271	3.8%
Walnut Creek	32,528	16.4%	5,584	16.9%
Unincorporated ²	20,477	10.3%	1,715	5.2%
Subtotal	198,619	100%	33,134	100%
³ Out of Service Area	N/A	N/A	242	N/A
Total	198,619	N/A	33,376	N/A

¹ Central San estimate based on January 2022 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 was 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's in order 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 HHW facility's usage figures for San Ramon. San Ramon's DTD program was on hiatus during the pandemic and data for FY 2018/19 was not provide to the District, therefore FY 2017/18 was used as a comparison in Table SR-1.

San Ramon reported their DTD program served 1,089 participants and collected a total of 62,023 pounds of waste (6,980 pounds were electronic waste) at a cost of \$186,551 in FY 2021/22. Since e-waste is not accepted by Central San's program, it was subtracted in Table SR-1 below, however all participants will be assumed to have had both e-waste and HHW picked up. The costs will also remain, as those are fixed costs for each resident.

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

HHW Collection Method	FY 2017/18	FY 2021/22
Central San HHW Facility	875	1,271
City of San Ramon Door-to-Door Program *	1226	1,089
Total participants	2,101	2,360
Percent difference in participation from previous period	12% more	

Pounds of Waste Collected from San Ramon	FY 2017/18	FY 2021/22
Central San HHW Facility	56,378	83,255
City of San Ramon Door-to-Door Program	62,023	50,646
Total pounds	118,401	133,901
Percent difference in pounds of waste collected from previous period	13% more	

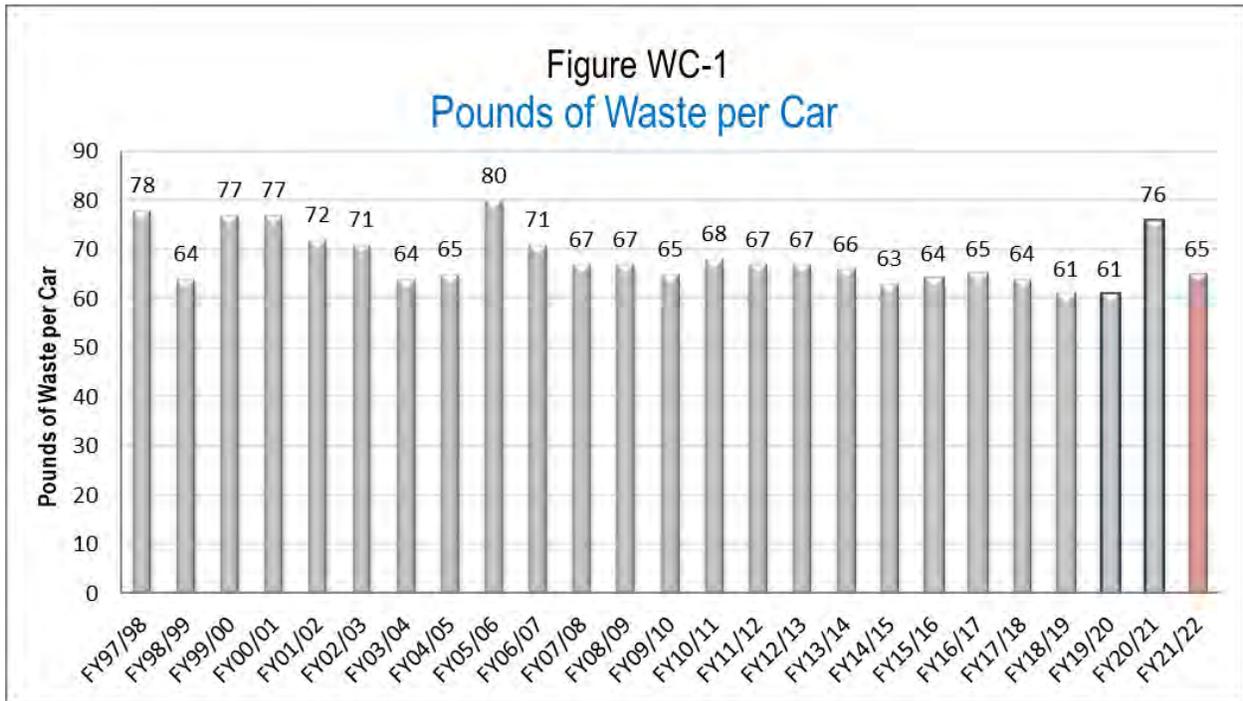
Cost of HHW Collection Method	FY 2017/18	FY 2021/22
Central San HHW Facility	\$47,724	\$78,052
City of San Ramon's portion of HHW Facility cost	\$19,651	\$33,796
City of San Ramon Door-to-Door Program	\$232,200	\$186,551
Total Cost	\$299,575	\$298,399
HHW Facility Pounds per participant	64	65
HHW Facility Cost per participant	\$77	\$88
HHW Facility Cost per pound of waste collected	\$1.21	\$1.36
DTD Pounds per participant **	51	47
DTD Cost per participant	\$189	\$171
DTD Cost per pound of waste collected	\$3.74	\$3.68

San Ramon's DTD program was on hiatus during the pandemic and data for FY 2018/19 was not provide to the District, so FY 2017/18, the last reported year, was used as a comparison.

* Number of DTD participants includes e-waste only pickups.

WASTE VOLUMES

In FY 2021/22, the HHW program collected 2,187,767 pounds of waste from residents and small businesses. Of that total, 1,942,652 pounds of hazardous waste was recycled or disposed, while 244,978 pounds of reusable products were given away to the public in FY 2021/22. Compared to FY 2020/21, this is a 28 percent decrease in weight processed by the HHW facility. However, if the previous two fiscal years are excluded and considered anomalous, then FY 2021/22 would be a 5.6 percent increase compared to operations in the pre-pandemic era. (See Table WC-1).



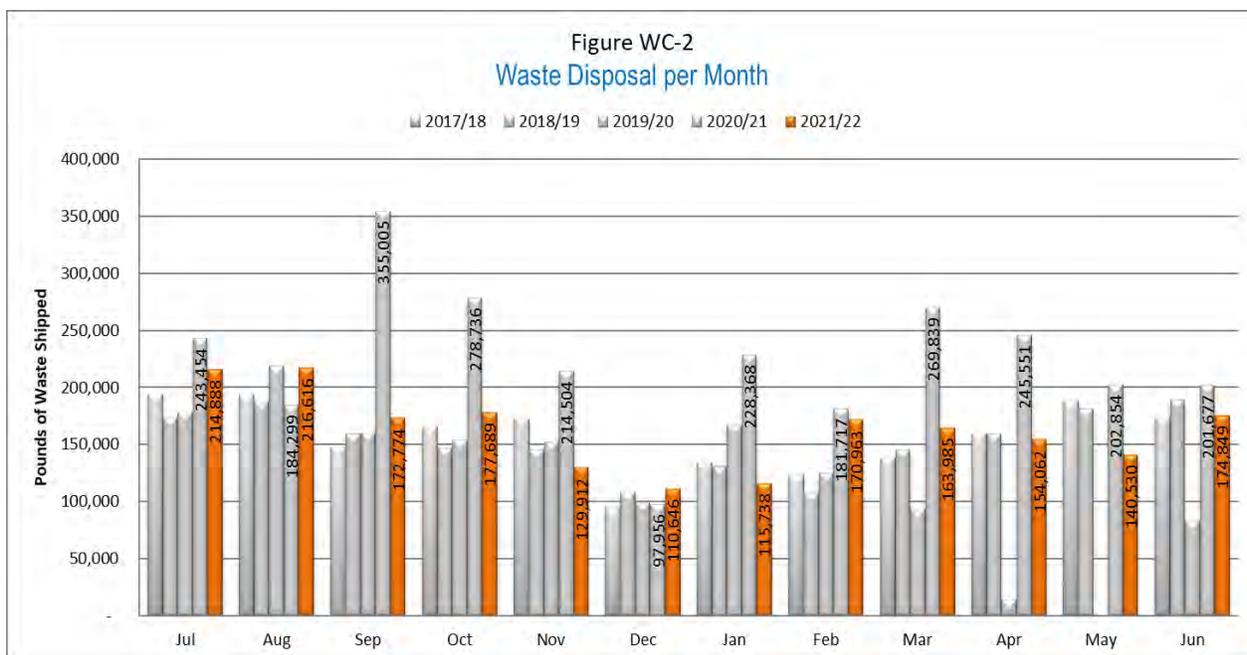
On average, each customer processed by the HHW program during FY 2021/22 delivered 65 pounds of waste for disposal or reuse. This includes the 33,376 residents, 209 small businesses, and 73 retail partners that used the HHW collection facility during the fiscal year. This is a 14 percent decrease from FY 2020/21 (76 pounds/vehicle) and a near even break with the running 10-year average of 65.4 pounds.³

The wastes were transported from the HHW collection facility for reuse, recycling, fuel blending, incineration, treatment, or landfill. Data specific to waste management activities is presented on pages 10 through 14.

³ 10-Year Standard Deviation was calculated to be 4.10 pounds

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 in Appendix I.

Figure WC-2 presents the quantity of wastes transported off-site each month for disposal. FY 2021/22 did not show the same record-breaking waste volumes seen in FY 2020/21; however, it is worth noting that 8 of the 12 months showed disposal weights above the 5-year average. In the past four years shown in Figure WC-2, FY 2021/22 and FY 2018/19 are the two most recent full years where the reuse room was open and operational, which is partly the reason for decreased disposal volumes during those two periods and the increased volumes in the intermediate years. *Note: March-June 2020 disposal numbers were below the average due to the three-month COVID-19 shelter in place order.*



Figures 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.

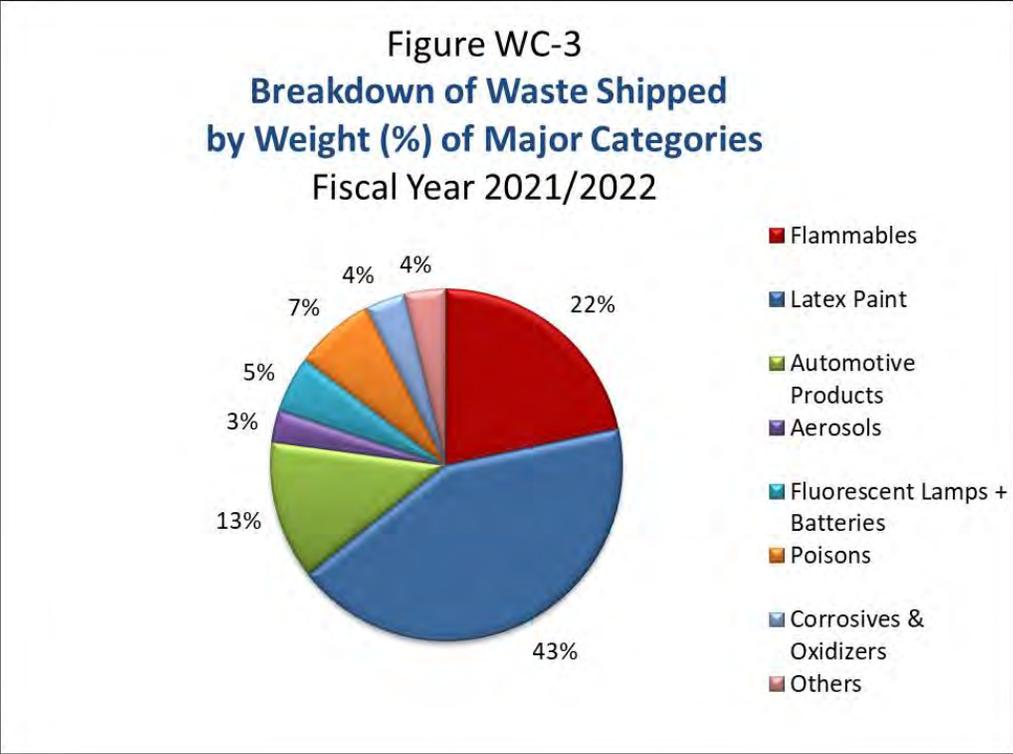


Figure WC-4 presents the distribution of hazardous wastes processed by the management method. Table WC-1 presents the estimated distribution of HHW collected by the community.

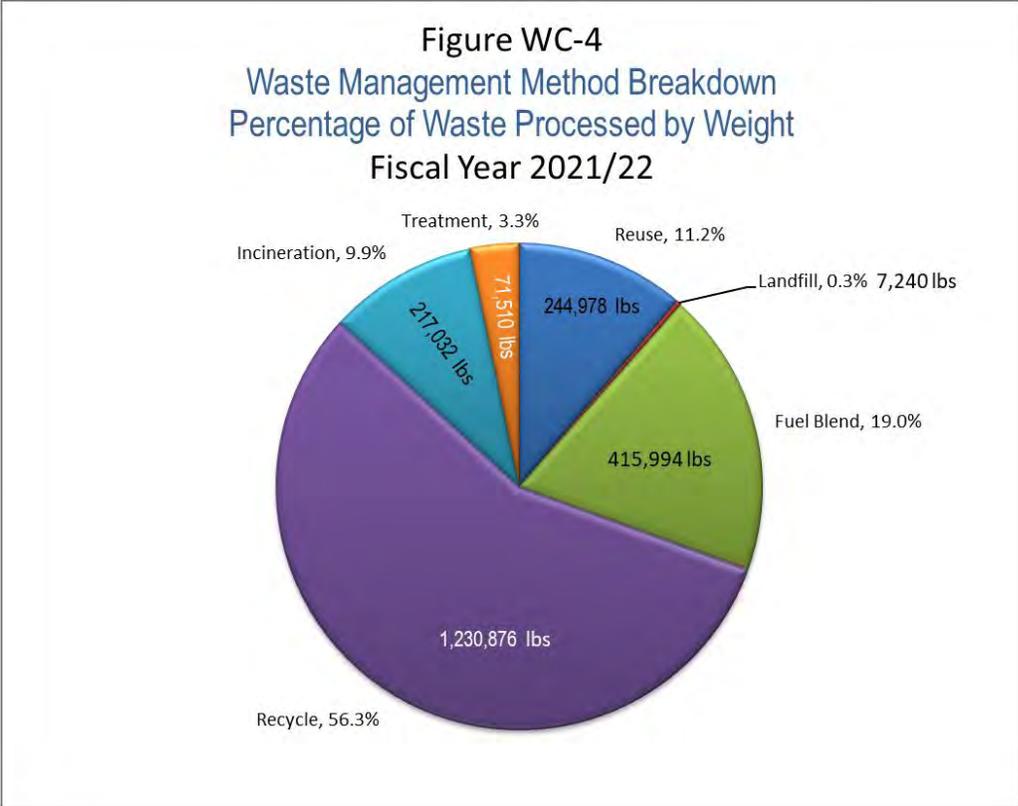


Table WC-1
Estimated Amount of Waste Collected by Community

Community	Number of Cars	Percent of Total Cars (rounded)	Estimated Amount of Waste Collected by Community (pounds)
Clayton	859	2.6%	55,831
Concord	7,209	21.4%	468,555
Danville	2,674	7.9%	173,799
Lafayette	2,401	7.1%	156,055
Martinez / Mt. View	5,993	17.8%	389,520
Moraga	1,019	3.0%	66,231
Orinda	1,281	3.8%	83,260
Pleasant Hill	3,321	9.9%	215,851
San Ramon	1,281	3.8%	83,260
Walnut Creek	5,646	16.8%	366,967
Unincorporated	1,732	5.1%	112,573
Subtotal	33,416	99.3%	2,171,901
Out of Service Area	242	0.7%	15,729
Total	33,658 ¹	100.0%	2,187,630 ²

¹ The total number of cars includes 33,376 cars from the permanent facility, 73 Retail partnership drop-offs, and 209 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 2021/22, the HHW program collected an estimated 58 pounds of elemental mercury contained in these types of wastes.

Table PP-1
FY 2021/22 Mercury Collection Summary

Mercury-Containing Devices	Number of Items	Units	Estimated Quantity of Mercury	Total Pounds Hg
Thermostats (3 Grams/unit)	78	Ea.	234 Grams	0.515
Thermometers (1 Grams/unit)	424	Ea.	424 Grams	0.933
Elemental Hg (Lbs.)	N/A	N/A	N/A	54.25
Switches	0.6	Lbs.	272 Grams	0.3
Mercury Batteries	139	Lbs.	434.38 Grams	0.955
Fluorescent Lamps	286,184	Feet	593.83 Grams	1.31
Total mercury (Hg) in Pounds				58.26
Paints, pesticides, and other compounds containing mercury	5	Container	Unknown	12.75

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 2021/22.

Table PP-2
FY 2021/22 Pollutants of Concern Summary

Compound	Total Pounds
Tributyltin	179
Diazinon	1,637
Chlorpyrifos	910
Carbaryl	1,591
Copper	2,197
Pentachlorophenol / 2,4,5-T / Trichlorophenol	200
Lindane	38
Chlordane	118
DDT (DDE)	67
Dieldrin	0
Lead Compounds	157
Pyrethroids (pesticides)	13,814
Fats, Oils and Greases (FOG)	39,112
Polychlorinated biphenyls (PCBs) / Light ballasts	2,075
Total	62,095

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 be a threat to our bay, 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 either 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 2021/22 Pharmaceutical Collection Summary

Collection Sites	Total Bins (18-Gallon)	Total Pounds	Average Lbs./Bin	Total Cost	*Average Cost/Lb.
Alamo	3	100	33.3	\$375	\$3.75
Danville	46	1267	27.5	\$5,750	\$4.54
Lafayette	10	259	25.9	\$1,250	\$4.83
Martinez	6	200	33.3	\$750	\$3.75
Moraga	13	527	40.5	\$1,625	\$3.08
Orinda	1	27	27.0	\$125	\$4.63
Pleasant Hill	15	511	34.1	\$1,875	\$3.67
Sherriff FOB	20	800	40.0	\$2,500	\$3.13
CCC Hospital	3	76	25.3	\$375	\$4.93
Walnut Creek	41	1,629	39.7	\$5,125	\$3.15
Total	158	5,396	34.2	\$19,750	\$3.66

*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 154,000 pounds of unwanted or expired medications have been collected and properly disposed of by incineration. In FY 2021/22, approximately 5,400 pounds were collected at the cost of \$19,750. 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 the Contra Costa County Safe Disposal Ordinance (CCCSDO). As of the printing of this report, there are more than 40 CCSDDO and Central San sites in the HHW service area. By the end of FY 2021/22, only 7 of the original 13 Central San collection locations remained part of our program, as three sites converted to CCCSDO during the year.

The following sites were converted to CCCSDO as of the listed dates:

San Ramon - November 2019
 Clayton - June 2021
 Concord - June 2021

Orinda - July 2021
 Pleasant Hill - December 2021
 Moraga - April 2022

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) and 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 closed for approximately 15 months during the COVID-19 pandemic and reopened in the last two weeks of FY 2020/21. By being open all of FY 2021/22, we were able to give away 11.2 percent (244,978 lbs.) of the total amount of waste collected by the HHW program. The reuse program saved approximately \$98,000 in disposal costs.

Recycled

The types of waste recycled at off-site facilities include 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 FY2021/22, a total of 415,994 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 wastes diverted from landfill.

Table WD-1
Quantity of Landfill Diverted Waste

Material Type	Quantity Recycled (Lbs.)
Motor oil and oil filters	155,533
Antifreeze	37,103
Car batteries	55,415
Fluorescent and LED lights	37,211
Compressed Gas Cylinders (Propane and Fire Extinguishers)	32,312
Scrap metal (lead, brass, and copper)	189
Printer cartridges	1,428
Mercury and Mercury Products	169
Household batteries	62,371
Latex Paint	828,718
Cooking Oil	20,318
Smoke Detectors	109
Total recycled waste	1,230,876
Reused HHW	244,978
Total recycled and reused	1,475,854
Percent of HHW reused or recycled	67.5%
Fuel Blended	
Oil based paint	270,894
Other flammable liquids	145,100
Total fuel blended waste	415,994
Percent of waste fuel blended to total collected	19.0%
Total landfill diverted waste	1,891,848
Percent of waste diverted from landfill	86.5%
Total waste collected, including reused, recycled, and disposed	2,187,630

SMALL BUSINESS PROGRAM

An important 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), formerly “Conditionally Exempt Small Quantity Generator” (CESQG). In August 2021, AB698 was signed into law and as a result the State regulations unified with Federal regulations renaming “CESQG” to “VSQG”. This Small Business Program remains a cost-effective and convenient hazardous waste disposal option for small generators of hazardous waste. 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 CESQG (VSQG) 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 2021/22	Previous Year
Clayton	0	0
Concord	65	72
Danville	4	3
Lafayette	17	9
Martinez/ Mt. View	44	35
Moraga	3	4
Orinda	3	5
Pleasant Hill	14	17
San Ramon	8	16
Walnut Creek	40	28
Unincorporated	11	12
Outside of service area	0	0
TOTAL	209	201

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

PUBLIC EDUCATION AND OUTREACH

HHW program participation has grown steadily since the first year of operation. It is publicized in each issue of the Central San *Pipeline* newsletter, which is 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 6.1 percent of the total residential participants during FY 2021/22 were first-time customers, and the remaining 93.9 percent were repeat customers.

REVENUE AND EXPENSES

The HHW program expenses for FY 2021/22 of \$2,976,567 decreased by almost 12 percent, compared to FY 2020/21. This was primarily due to the recovery of pandemic-related surges in participation and waste volumes, and the reopening of the Reuse Room. The results were a 6 percent decrease in the number of customers served, a 13 percent decrease in the average amount of waste per vehicle served, and a fully operational Reuse Room program (which supplemented a 28 percent reduction of waste shipped for treatment or disposal during the year). For perspective, expenses in FY 2021/22 were only 6 percent higher when compared to pre-pandemic, FY 2018/19.

The effects of the pandemic continue to linger in the hazardous waste management market, as shutdowns, backlogs, and labor issues plague incinerators, fuel blenders, and other end-of-disposal processes. In August 2021, US EPA issued a notice explaining the nationwide problem and warned that 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 saying that the backlog remains in effect.

The backlog caused our hazardous waste contractor to be unable to manage our wastes that require fuel recovery or destructive incineration. This required staff to quickly shift to a secondary contractor who was able to properly manage our wastes on a continuous basis. This short-term contract was very important in keeping wastes properly flowing through the HHW facility. Rates for the new contractor's services were at or below our previous contract pricing.

The supply chain has also been affected by the labor market as containers and other packaging materials were difficult to find in needed quantities. Also, a long-term supplier was purchased by a competitor, which reduced the number of local outlets, limiting options.

The operating cost per car decreased from \$95 per car in FY 2020/21 to \$88 per car in FY 2021/22. This number remains higher than normal when compared to pre-pandemic FY2018/19, at \$78 per car. Costs for future years are expected to remain high and will likely increase even as constraints from the pandemic decrease and supply chains stabilize.

Figure RE-1 shows the operating cost per car (participant) since the inception of the program.

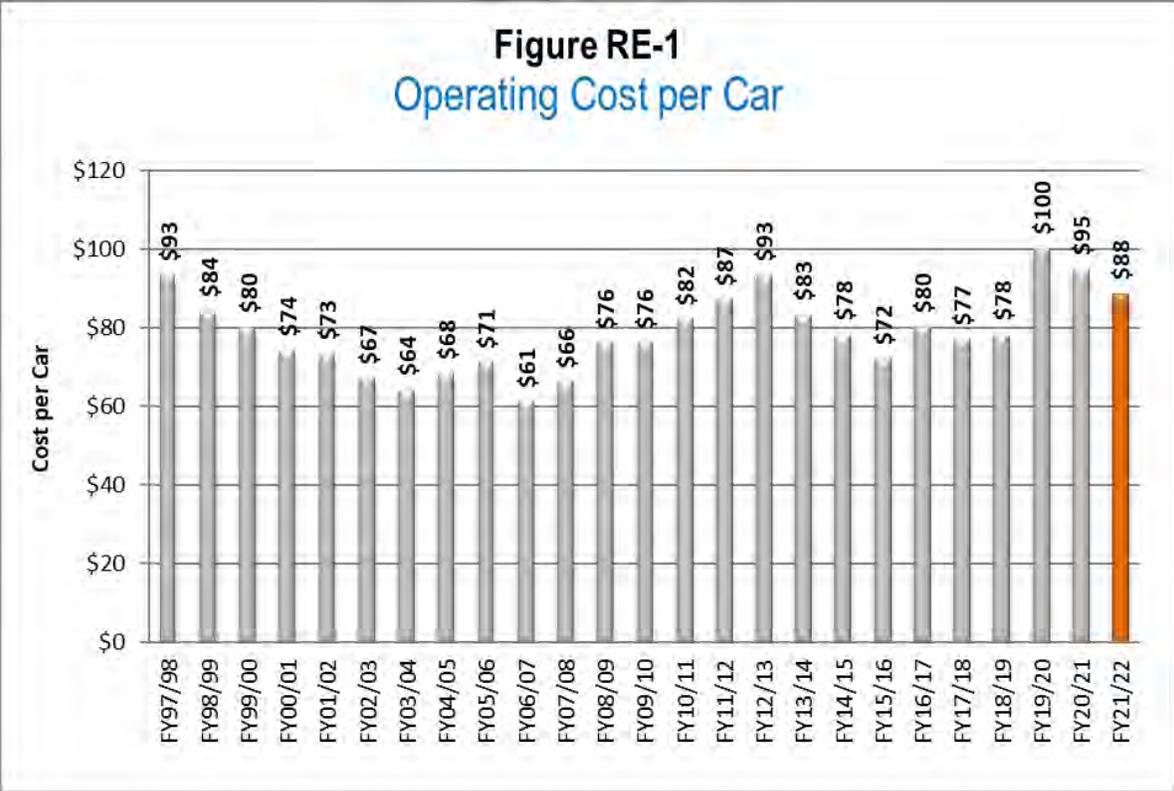


Figure RE-2, on the following page, breaks down that cost by the five major expense categories: labor, waste, materials, capital, and other.

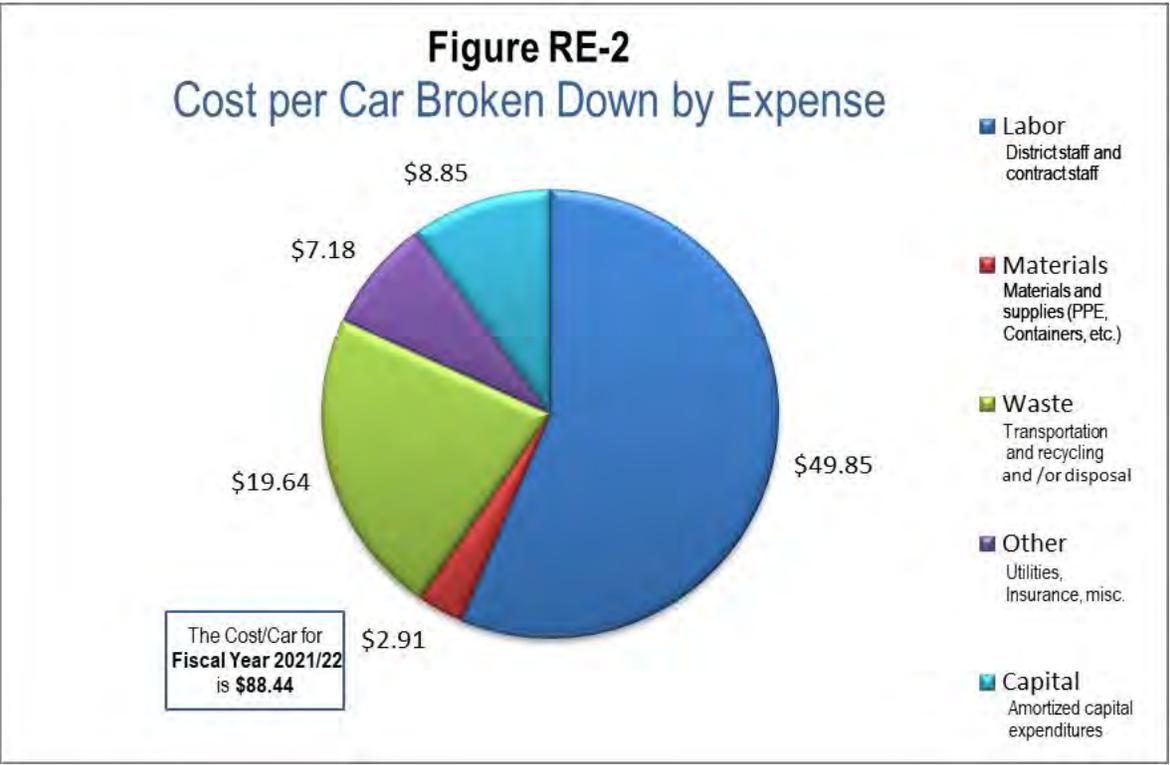
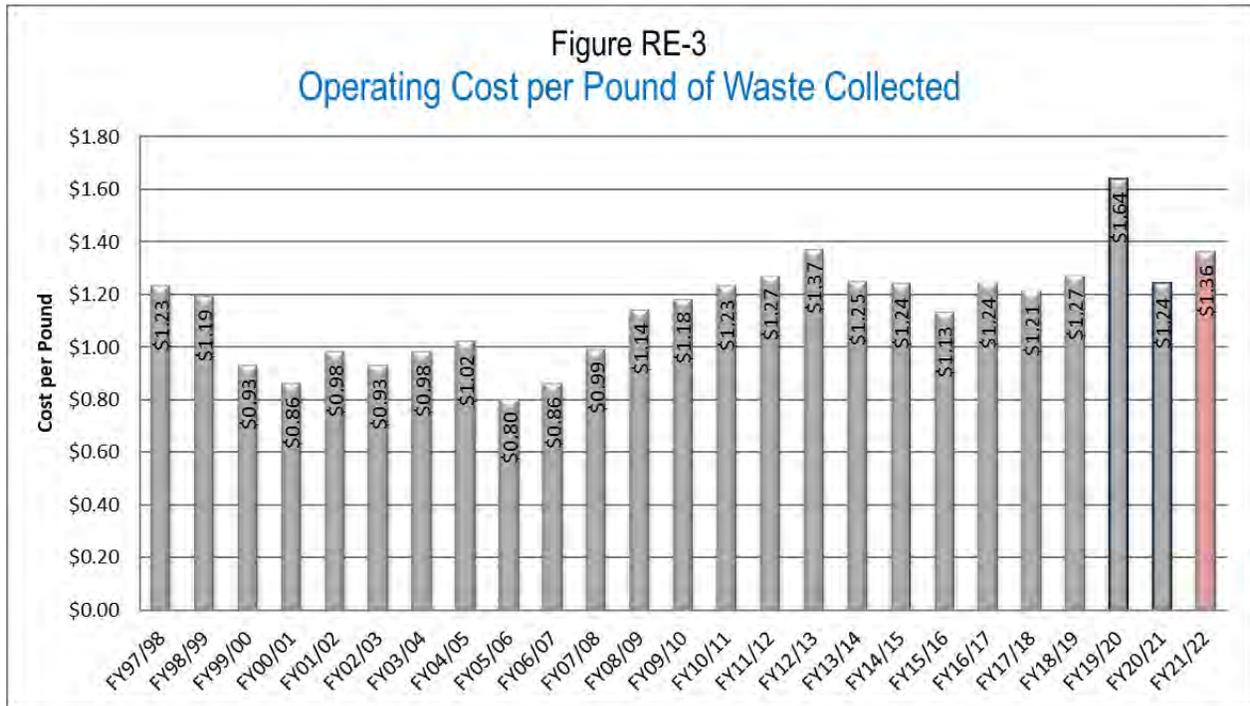


Figure RE-3 describes the operating cost per pound of waste collected.



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 2021/22. Table RE-2 shows the amortization schedule of all capital expenditures since the completion of the HHW facility in 1997.

Tables and Figures

- Table RE-1 presents a full summary of revenue and expenses for the HHW Program for FY 2020/21.
- Figure RE-3 shows the HHW program participation, and the expenses related to the program for each of the 25 years of operation.
- Figure RE-4 lists the estimated average cost per household for each year the HHW program has been in operation.

Table RE-1

Household Hazardous Waste Collection Facility
2021/22 Summary of Revenue and Expenses

Revenue	<u>FY 2020/21</u>	<u>FY 2021/22</u>
Central San Sewer Service Charges:	\$ 2,264,585	\$ 1,982,215
Service Agreements with other jurisdictions:	<u>FY 2020/21</u>	<u>FY 2021/22</u>
Mt. View Sanitary District	\$ 146,392	\$ 132,934
City of Concord	791,182	683,638
City of Clayton	70,055	60,865
City of San Ramon	<u>32,523</u>	<u>33,812</u>
	\$ 1,040,151	\$ 911,250
Sale of collected materials and CESQG Charges:	\$ 44,658	\$ 60,353
Transfer portion of revenue to Self-Insurance for Insurance Policy:	<u>\$ 21,714</u>	<u>\$ 22,749</u>
TOTAL REVENUE	<u>\$ 3,371,068</u>	<u>\$ 2,976,567</u>
 Expenses		
	<u>FY 2020/21</u>	<u>FY 2021/22</u>
Salaries, benefits, and overhead (HHW Staff)	\$ 1,548,267	\$ 1,677,892
Environmental liability premiums	71,148	74,856
Utilities	11,744	16,601
Repairs and maintenance	26,082	22,669
Transportation and disposal	1,070,017	661,002
Professional, technical, and legal services	169,487	112,357
Materials and supplies	162,639	98,021
Other expenses	<u>13,643</u>	<u>15,128</u>
TOTAL OPERATING EXPENSES	\$ 3,073,026	\$ 2,678,525
Amortization of Capital Expenditures	<u>298,041</u>	<u>298,041</u>
TOTAL EXPENSES	<u>\$ 3,371,068</u>	<u>\$ 2,976,567</u>

Table RE-2

**HHW Facility Capital Expenditure Amortization Schedule
1998 thru 2042**

Years	Fiscal Year Ending	Improvement Projects - District Project (DP)						Total
		Original Construction	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

Figure RE-4
Participation and Expenses

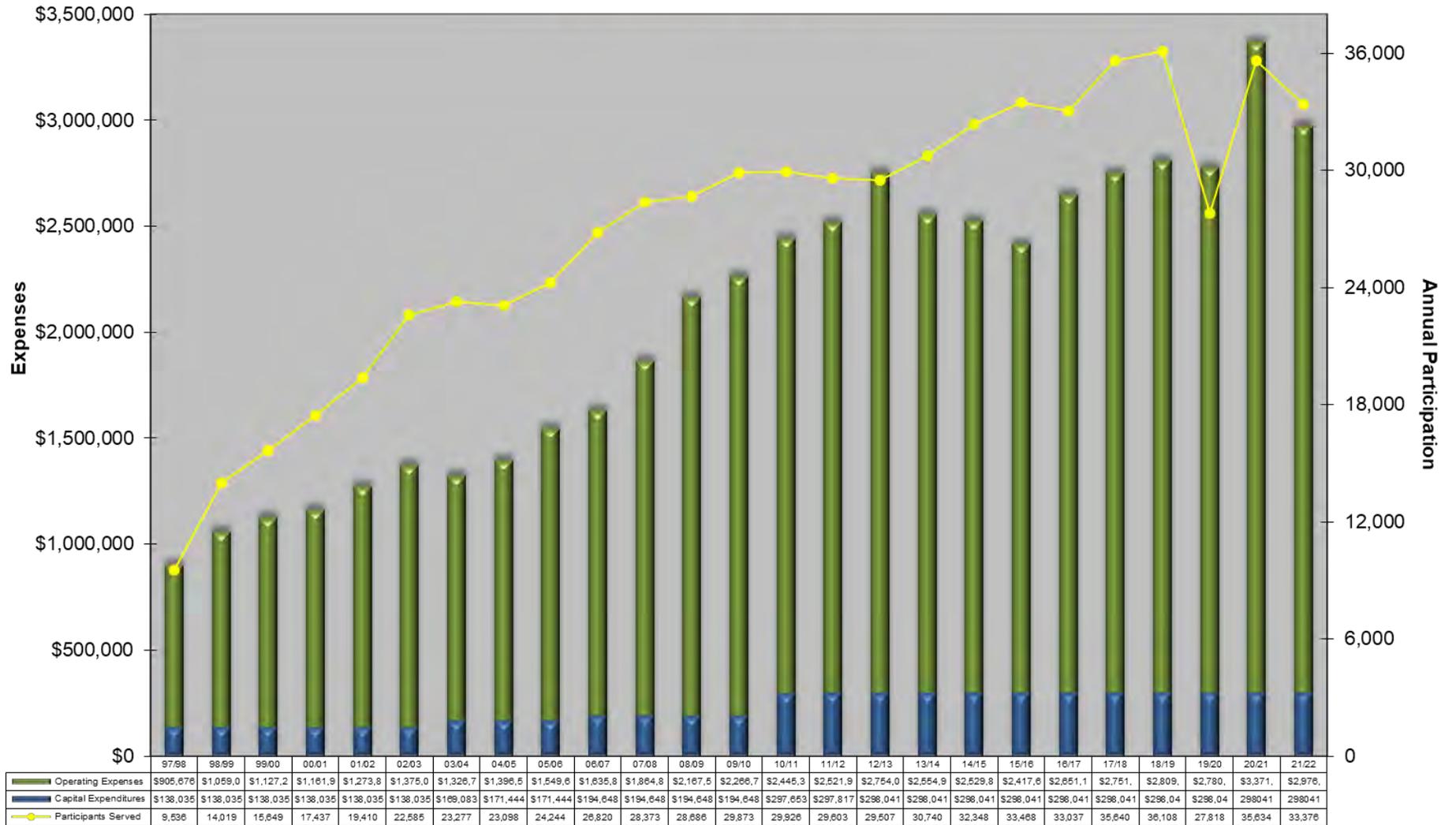
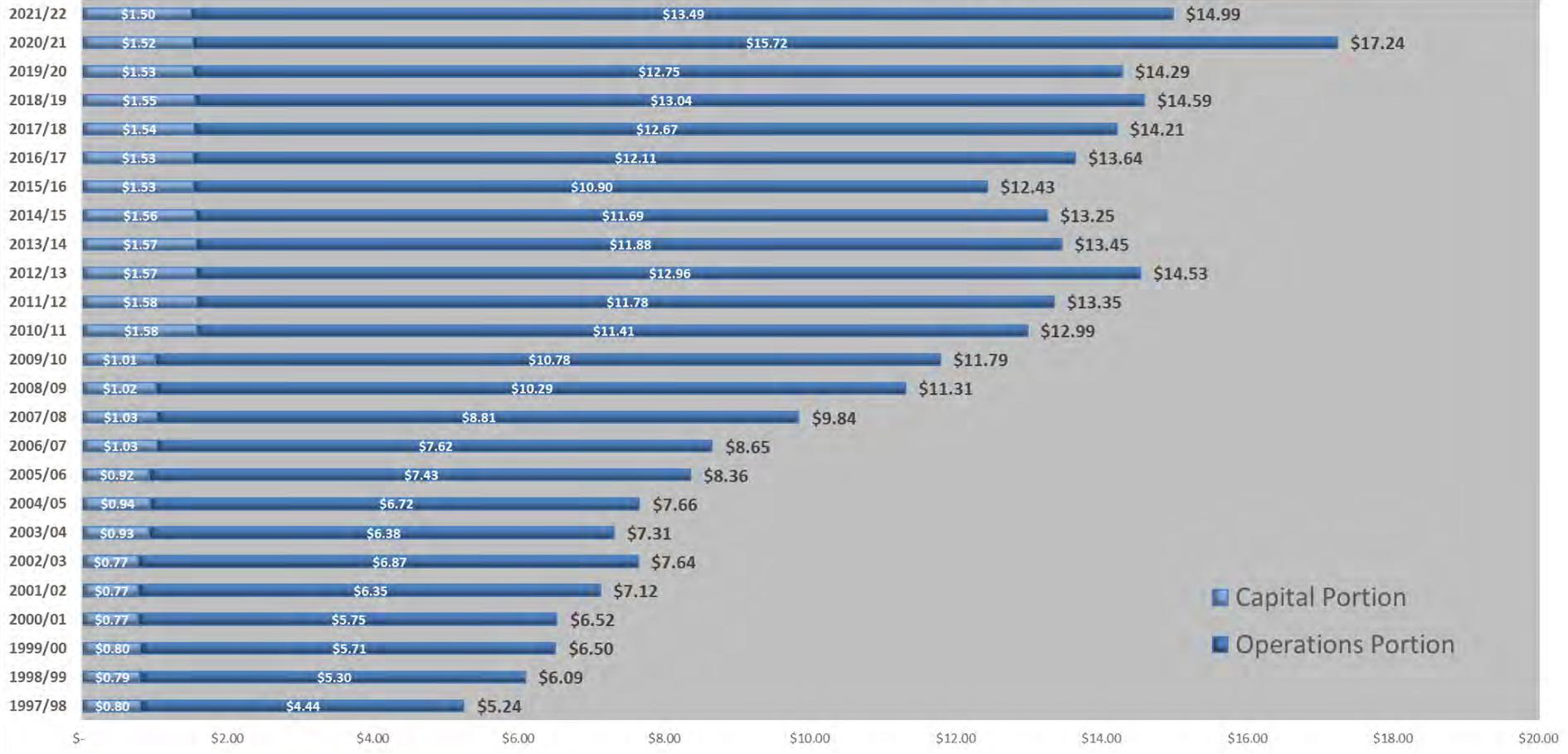


Figure RE-5
HHW Program Annual Cost per Household





APPENDIX I

F303 FORM



Form CalRecycle 303 Household Hazardous Waste Collection Information For 2021-2022

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: 33,376 Method: Number of Vehicles
Participating Households includes non-residential (CESQG,schools,nonprofits,etc.): No
Service Area Households: 198,619

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 - Moraga PD		Pharmaceutical Collection - Orinda PD		Pharmaceutical Collection - Pleasant Hill 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	103,653							
	Bulked flammable liquids	46,350							
	Oil-based paints	107,541							
	Paint Related Material (PRM)	177,650							
	Poisons	142,369							
	Reactive and explosive	61							
	Compressed gas cylinders	27,664							
	1 lb propane canister	4,648							
	Flammable and Poison subtotal	609,936							
PCB-containing	PCB-containing paint								
	Other PCB waste (includes ballasts)	2,075							
	PCB-containing subtotal	2,075							
Reclaimable	Antifreeze	37,103							
	Auto type batteries (motor vehicles)	55,415							
	Latex paint	905,590							
	Motor oil/oil products	149,933							
	Used oil filters (recyclables only)	5,600							
	Reclaimable subtotal	1,153,641							
Acid	Inorganic and organic acid	22,510							
Base	Inorganic and organic base	38,250							
Oxidizer	Neutral oxidizers, Organic peroxides, Oxidizing acid/base	10,799							
Asbestos	Asbestos	7,200							
Universal Waste (UW)*	Mercury containing automatic switches / thermometers / and novelties	137							
	Mercury containing thermostats	32							
	Mercury containing waste (other)								
	Lamps	28,364							8,847
	Photovoltaic Modules								
	Other batteries	30,189							22,962
	Aerosol cans	57,600							
Rechargeable batteries	9,220								



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
Electronic Devices (UW)	Covered Electronic Devices								
	Other Electronic Devices								
	Electronic Devices (UW) subtotal								
Universal Waste (UW)* + Electronic Devices (UW) subtotal		125,542							31,809
Other	Home-generated sharps waste	40							
	Home-generated pharmaceutical waste								5,397
	Treated wood								
	Cooking Oil	20,318							
	Non-PCB Ballasts	4,578							
	Other								
	Printer cartridges/Toner	1,428							
	Scrap Lead	189							
	Smoke Detectors	109							
	Reuse Total	153,809							
Other subtotal		180,471							5,397
Grand Total		2,150,424							37,206



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

Disposition (pounds)	Material Type	Destructive Incineration	Fuel Incineration	Landfill	Neutralization / Treatment	Recycled	Reused	Stabilization	Steward
Flammable and Poison	Flammable solids / liquids	5,934	97,720						
	Bulked flammable liquids		46,350						
	Oil-based paints						14,297		93,244
	Paint Related Material (PRM)		177,650						
	Poisons	142,369							
	Reactive and explosive	61							
	Compressed gas cylinders	5,531				22,133			
	1 lb propane canister					4,648			
Flammable and Poison subtotal		153,895	321,720			26,781	14,297		93,244
PCB-containing	PCB-containing paint								
	Other PCB waste (includes ballasts)			2,075					
	PCB-containing subtotal				2,075				
Reclaimable	Antifreeze					37,103			
	Auto type batteries (motor vehicles)					55,415			
	Latex paint						76,872		828,718
	Motor oil/oil products					149,933			
	Used oil filters (recyclables only)					5,600			
	Reclaimable subtotal						248,051	76,872	
Acid	Inorganic and organic acid	9,004			13,506				
Base	Inorganic and organic base	15,300		22,950					
Oxidizer	Neutral oxidizers, Organic peroxides, Oxidizing acid/base	4,320			6,479				
Asbestos	Asbestos			7,200					
Universal Waste (UW)*	Mercury containing automatic switches / thermometers / and novelties					137			
	Mercury containing thermostats								32
	Mercury containing waste (other)								
	Lamps					37,211			
	Photovoltaic Modules								
	Other batteries					53,151			
	Aerosol cans	17,280	40,320						
	Rechargeable batteries					9,220			
Electronic Devices (UW)	Covered Electronic Devices								



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

Disposition (pounds)	Material Type	Destructive Incineration	Fuel Incineration	Landfill	Neutralization / Treatment	Recycled	Reused	Stabilization	Steward
Electronic Devices (UW)	Other Electronic Devices								
	Electronic Devices (UW) subtotal								
Universal Waste (UW)* + Electronic Devices (UW) subtotal		17,280	40,320			99,719			32
Other	Home-generated sharps waste	40							
	Home-generated pharmaceutical waste	5,397							
	Treated wood								
	Cooking Oil					20,318			
	Non-PCB Ballasts	4,578							
	Other								
	Printer cartridges/Toner					1,428			
	Scrap Lead					189			
	Smoke Detectors					109			
	Reuse Total							153,809	
Other subtotal		10,015				22,044	153,809		
Grand Total		209,814	362,040	32,225	19,985	396,595	244,978		921,994



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

**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



APPENDIX III

HHW PROGRAM HISTORY: 1997 TO PRESENT

