

Solid Waste in Washington State



24th Annual Status Report



DEPARTMENT OF
ECOLOGY
State of Washington

Waste 2 Resources Program
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Chapter 5: Moderate Risk Waste Management



The term “moderate risk waste” (MRW) was created by revisions to Washington State’s 1986 Hazardous Waste Management Act (RCW 70.105). MRW is a combination of household hazardous waste (HHW) and conditionally exempt small quantity generator (CESQG) waste. HHW is waste created in the home, while CESQG is small quantities of business or non-household waste. Both HHW and CESQG waste are exempt from state hazardous waste regulations.

- The total MRW collected in 2014 was about 22.6 million pounds.
- The average amount of HHW disposed of per participant was 66.0 pounds, and per capita was 1.89 pounds.
- A little more than 3 percent of Washington residents used a fixed facility or collection event to remove hazardous waste from their households, about 7.4 percent of all households.
- Counties that publicly collected the most CESQG waste per capita were Yakima, Whatcom, Lewis, Kitsap, and Island.
- Counties that collected the most used oil per capita were Stevens, Skamania, Wahkiakum, Cowlitz and Asotin.
- Approximately 85 percent of all MRW collected was recycled, reused, or used for energy recovery.

MRW collections started in the early 1980s primarily as HHW-only events, also known as “roundups” or collection events. These events usually happened once or twice a year.

In the late 1980s, permanent collection facilities now known as fixed facilities began to replace collection events to fulfill the need for year-round collection. Over time, local collection programs have further developed with the addition of mobile units and satellite facilities to supplement fixed facilities. These efforts resulted in a larger number of customers served, decreased costs, and increased reuse and recycling of MRW.

Please note data in this chapter is only a portion of the MRW waste

stream. The MRW data presented here is reported through local governments, with a few private companies also reporting because they have a solid waste permit issued by the appropriate local authority. Chapter 4 includes additional statewide data.

Funding

RCW 70.105.235 authorizes Ecology to provide financial assistance through grants to locals for preparing, updating, and implementing local Hazardous Waste Plans, which detail local MRW

programs. Ecology uses the Coordinated Prevention Grants Program (CPG) to provide funding to local governments for these purposes. CPG is funded by the Local Toxics Control Account (LTCA).¹ CPG funding requires a 25 percent match from local agencies.

All local governments in the state of Washington have completed Hazardous Waste (HW) Plans. See Chapter 2 for the status of plans in each county. Every local HW plan must address:

- ✓ HHW collection.
- ✓ Household and public education.
- ✓ Small business technical assistance.
- ✓ Small business collection assistance.
- ✓ Enforcement.
- ✓ Used oil collection and education.

Accuracy of Data Collection

Ecology created and circulates a standard reporting form to all MRW programs. However, the reported data can vary depending on a program's collection process, and how data is reported and interpreted. All programs must provide an individual MRW report. However, some programs do not meet this obligation, which can create gaps in the data.

2014 Data

Chapter 173-350 WAC, Solid Waste Handling Standards, requires local programs to submit MRW report forms annually. Annual reports are required to be submitted by April 1 for the previous calendar year collections. Information received from local programs through MRW annual reports provides Ecology with data on MRW infrastructure, collection trends, costs, waste types received at collection events and fixed facilities, and disposition of wastes collected. Ecology translates this data into the information contained in this chapter, and designs it to be specifically useful to those who operate or work in MRW programs in Washington State.

This year's report focuses on 2014 data with some comparisons to data published in previous years' reports. In an effort to provide useful information for individual programs, data is provided in categories by county size.

In 2014, Ferry, Garfield, Mason, and San Juan Counties did not report any HHW collections. Private collectors or used oil collection programs provided the numbers shown in this report for these counties. Due to budget constraints, some counties decided to reduce hours of operations at their fixed facilities, or discontinued or reduced collection events.

¹ Authorized by RCW 82.21.030 (Chapter 82.21 RCW, Hazardous substance tax -- Model toxics control act).

Permanent fixed facilities now service most of the state. In 2014, Benton, Chelan, Douglas, Ferry, Garfield, San Juan, Skamania, and Wahkiakum counties did not have fixed facilities. Garfield residents can use the facility in Asotin County and Cowlitz County conducts a mobile event in Wahkiakum County. Benton, Chelan, Douglas, Ferry, San Juan, and Skamania counties normally conduct collection events, though some of these counties were unable to do so in 2014.

In past reports, Ferry County was shown to have a fixed facility, but the facility is more properly categorized as a limited MRW Facility. Benton County had a permanent fixed facility until about mid-2010 when the facility was destroyed by a fire.

Collection services for CESQGs have leveled off statewide. In 2014, 16 fixed facilities serviced CESQGs, and 2 counties provided a collection event for CESQGs.

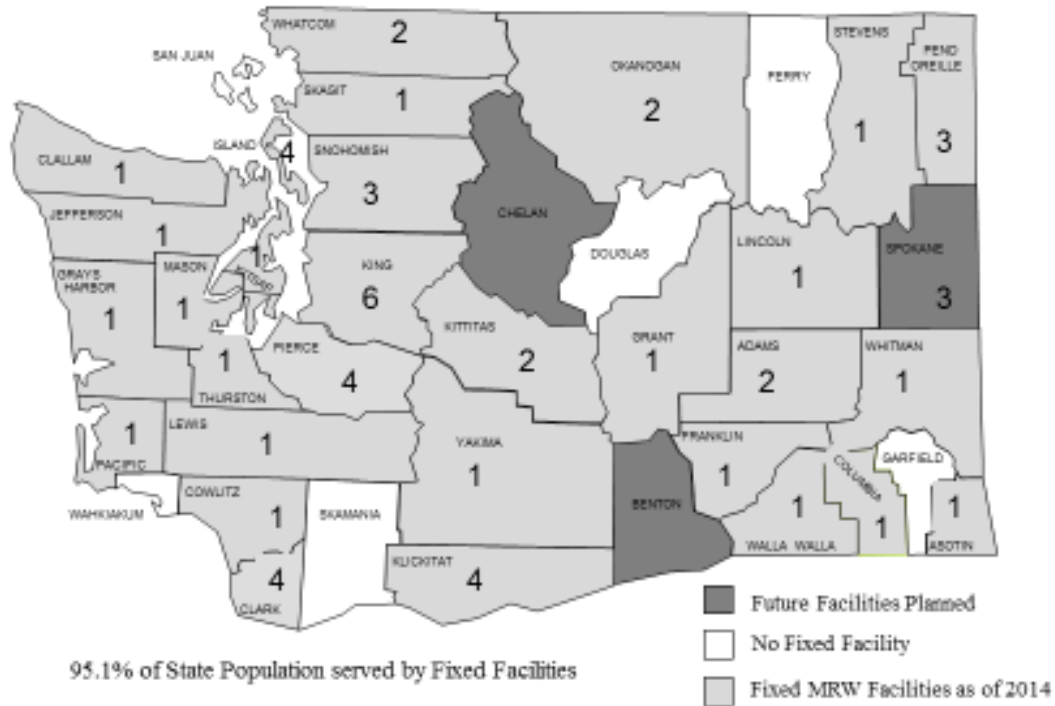
Table 5.1 shows the estimated population (based on data provided by the Office of Financial Management) by size of individual counties. In Washington State there are 42 programs that manage MRW. These programs include all 39 counties.

**Table 5.1
Individual County Population by Size (2013)**

< 50 K		50 K – 100 K		> 100 K	
Garfield	2,240	Walla Walla	60,150	Cowlitz	103,700
Wahkiakum	4,010	Mason	62,000	Skagit	119,500
Columbia	4,080	Clallam	72,500	Benton	186,500
Ferry	7,660	Grays Harbor	73,300	Whatcom	207,600
Lincoln	10,700	Chelan	74,300	Yakima	248,800
Skamania	11,370	Lewis	76,300	Kitsap	255,900
Pend Oreille	13,210	Island	80,000	Thurston	264,000
San Juan	16,100	Franklin	86,600	Clark	442,800
Adams	19,400	Grant	92,900	Spokane	484,500
Klickitat	20,850	50 K – 100 K Total	678,050	Snohomish	741,000
Pacific	21,100			Pierce	821,300
Asotin	21,950			King	2,017,250
Jefferson	30,700			> 100K Total	5,892,850
Douglas	39,700				
Okanogan	41,700				
Kittitas	42,100				
Stevens	43,900				
Whitman	46,500				
< 50K Total	397,720			State Total	6,968,170

Map 5.A shows which counties have permanent fixed facilities, the number of fixed facilities in each county, and which counties are likely to develop a permanent fixed facility in the future. Six of the fixed facilities represented on the map are owned and operated by private companies, either managing their own wastes from multiple facilities at one consolidation point or only servicing CESQG customers.

Map 5.A
58 MRW Facilities as of 2014



MRW Collected

As shown in Table 5.2, Washington programs collected approximately 11.8 million pounds of HHW, 6.6 million pounds of used oil (UO), and 4.2 million pounds of CESQG waste, for a total of approximately 22.6 million pounds of MRW during 2014.

Table 5.2
Total Pounds per Waste Category 2005-14

Collection Year	HHW lbs (no UO)	Used Oil lbs	CESQG lbs	Total MRW lbs
2005	14.7M	11.3M	6.3M	32.3M
2006	15.2M	10.0M	7.1M	32.3M
2007	14.9M	9.7M	7.6M	32.2M
2008	14,163,842	8,606,794	8,336,030	31,106,666
2009	12,257,316	8,916,633	4,867,334	26,041,283
2010	11,572,466	9,218,395	5,387,903	26,178,764
2011	10,965,429	7,857,614	4,977,625	23,800,668
2012	11,303,293	7,417,694	4,424,536	23,145,523
2013	12,722,719	7,196,140	3,768,763	23,687,622
2014	11,850,786	6,605,106	4,211,368	22,667,260

Collection by Waste Category and Type

As shown in Table 5.3, the waste types of MRW collected most in 2014 were non-contaminated used oil, antifreeze, paint related material, latex paint, oil-based paint, and flammable liquids. These totals include used oil and antifreeze collected at all collection sites. These six specific waste types accounted for approximately 66 percent of the estimated 22.6 million pounds of MRW collected in 2014.

Table 5.3
Six Most MRW Waste Types Collected in 2014

Waste Type	Total Lbs.
Non-Contaminated Used Oil	6,605,106
Antifreeze	2,890,528
Paint Related Material	1,592,049
Latex Paint	1,348,132
Oil-based Paint	1,306,012
Flammable Liquids	1,190,405
Total	14,932,232

Table 5.4 provides summary information on total pounds of MRW collected from HHW and CESQG (publicly and privately collected) categories by waste types. Some waste type categories were changed and a few new ones added to the annual report form beginning in 2007.

**Table 5.4
Total Pounds of MRW Collected by Waste Category in 2014**

Waste Type	HHW	CESQG	Total
Acids	166,892	14,990	181,882
Acids (Aerosol Cans)	43	0	43
Aerosols (Consumer Commodities)	213,038	19,661	232,699
Antifreeze	651,097	2,239,431	2,890,528
Bases	284,127	16,579	300,706
Bases, Aerosols	107	4	111
Batteries (Auto Lead Acid)	623,130	13,061	636,191
Batteries (Small Lead Acid)	17,904	6,850	24,754
Batteries (Dry Cell)	394,086	73,521	467,607
Batteries (Nicad/NIMH/Lithium)	65,155	13,291	78,446
CFCs	14,468	11	14,479
Chlorinated Solvents	2,228	465	2,693
Compressed Gas Cylinders	6,154	308	6,462
CRT's	813,640	18,424	832,064
Cyanide Solutions	16	1	17
Dioxins	1	0	1
Electronics	1,181,118	8,500	1,189,618
Fire Extinguishers	20,718	1,694	22,412
Flammable Solids	22,071	13,005	35,076
Flammable Liquids	1,026,683	166,397	1,193,080
Flammable Liquids, Aerosols	819	0	819
Flammable Liquids Poison	206,822	8,001	214,823
Flammable Liquid Poison, Aerosols	67,147	51	67,198
Flammable Gas (Butane/Propane)	137,128	579	137,707
Flammable Gas Poison	53	0	53
Flammable Gas Poison, Aerosols	47,549	1,357	48,906
Latex Paint	1,287,180	72,288	1,359,468
Latex Paint, Contaminated	162,477	21,488	183,965
Mercury Compounds (Dental Amalgam)	96	10,035	10,131

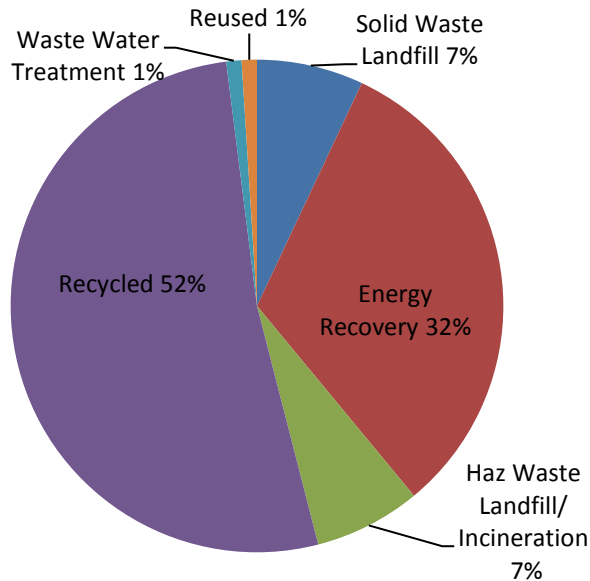
Waste Type	HHW	CESQG	Total
Mercury Containing Batteries (Button, etc.)	0	1	1
Mercury Devices (Monometers, Barometers, etc.)	83	12	95
Mercury (Fluorescent Lamps & CFLs)	445,996	239,742	685,738
Mercury (Pure Elemental)	1,774	25	1,799
Mercury (Switches & Relays)	0	0	0
Mercury (Thermostats/Thermometers)	376	231	607
Nitrate Fertilizer	7,580	8	7,588
Non-PCB Containing Light Ballasts	5,883	3,319	9,202
Non-Regulated Liquids	77,131	73,924	151,055
Non-Regulated Solids	170,019	415,488	585,507
Oil-Based Paint	1,169,079	136,933	1,306,012
Oil-Based Paint, Contaminated	204,262	6,467	210,729
Oil Contaminated (oily H2O, oil w/PCBs, etc.)	77,852	128,451	206,303
Oil Filters	144,064	3,900	147,964
Oil Filters Crushed	4,535	0	4,535
Oil Non-Contaminated	6,284,780	320,326	6,605,106
Oil Stained Rags, Absorbent Pads, etc.	2,886	4,417	7,303
Organic Peroxides	1,078	36	1,114
Other Dangerous Waste	37,014	199,239	236,253
Oxidizers	31,105	1,982	33,087
Paint Related Materials	1,363,606	235,199	1,598,805
PCB Containing Light Ballasts	16,960	4,966	21,926
Pesticide/Poison Liquid	342,275	10,355	352,630
Pesticide/Poison Solid	268,902	17,305	286,207
Photo/Silver Fixer	3,078	7,750	10,828
Reactives	2,403	39	2,442
Tar and/or Adhesives	24,452	1,587	26,039
Used Cooking Oil	36,446	0	36,446
MRW TOTAL	18,135,566	4,531,694	22,667,260

* These totals do not match the HHW and CESQG totals in Table 5.2 because these contain used oil, which was separated out in Table 5.2. Also, in past reports most of the used oil was included with the CESQG totals. It is impossible to know if used oil collected at facilities such as Jiffy Lube is HHW or CESQG. However, it seems more reasonable that most of it is HHW rather than CESQG. Therefore, since 2008 it has been included with the HHW total in Table 5.4 instead of the CESQG total as in the past.

Disposition of MRW Waste

The disposition of MRW collected is generally well managed. Most MRW is recycled or used for energy recovery. Very little of the MRW collected is safe for solid waste disposal. Seven percent of all MRW is disposed at a hazardous waste landfill or incinerator. Figure 5.1 shows final disposition of MRW between recycled, reused, energy recovery, hazardous waste landfill or incineration, solid waste landfill, and disposal through a wastewater treatment plant.

Figure 5.1
2014 MRW Final Disposition



MRW Data

Table 5.5 shows various data by county. HHW data is based on fixed facility and collection event information, but does not include HHW collected at limited MRW sites, as participation numbers are not tracked at these sites. The last column of this table represents all MRW collected in that county, including privately collected CESGQ wastes, used oil, antifreeze, and oil filters collected at limited MRW sites. This information can be used to evaluate efficiencies within each county by comparing percentage of participants per housing units and costs, and HHW pounds per participant.

Housing units are the number of households in each county. This data is used instead of per capita because participants typically represent a household.

Table 5.5
Various HHW Data by County

County	Housing Units	HHW Participants	% Participant / Housing Units	HHW Cost / Participant	HHW lbs / Participant	HHW Total lbs	HHW, SQG, & Used Oil From Limited Sites Total lbs
Adams^	6,421	0	0%	\$0	0.00	3,671	5,710
Asotin^	9,954	0	0%	\$0	0.00	248,926	251,308
Benton	73,181	2,676	3.7%	\$113.42	103.3	276,301	284,437
Chelan	36,651	950	2.6%	\$75.66	111.8	106,215	175,835
Clallam	36,275	663	1.8%	\$139.52	72.6	48,125	177,963
Clark	172,731	14,075	8.1%	\$32.22	186.3	2,622,046	3,742,401
Columbia^	2,162	0	0%	\$0	0.00	2,297	2,956
Cowlitz	44,003	2,223	5.0%	\$70.10	416.5	925,824	1,220,240
Douglas	16,430	571	3.5%	\$83.20	36.2	20,695	28,332
Ferry*	4,483	0	0%	\$0	0.00	0	0
Franklin	26,597	362	1.4%	\$18.70	10.2	3,690	374,538
Garfield*	1,238	0	0%	\$0	0.00	0	3,679
Grant	36,341	365	1%	\$137.87	169.4	61,816	113,168
Grays Harbor	35,634	1,975	5.5%	\$167.40	60.6	119,727	252,540
Island	40,882	2,798	6.8%	\$54.00	106.6	298,239	316,322
Jefferson	18,143	1,298	7.2%	\$62.64	81.6	105,896	112,286
King	879,927	72,838	8.3%	\$36.38	49.2	3,582,856	6,071,357
Kitsap	109,118	8,333	7.6%	\$97.60	84.9	707,496	1,044,301
Kittitas	22,734	375	1.6%	\$190.94	170.2	63,829	163,390
Klickitat	10,157	8,425	82.9%	\$3.04	6.3	53,345	62,933
Lewis	34,682	1,087	3.1%	\$132.34	300.00	326,724	404,665
Lincoln	5,911	390	6.6%	\$37.60	150.3	53,390	62,855
Mason*	33,087	0	0%	\$0	0.00	0	3,175
Okanogan*	22,808	0	0%	\$0	0.00	0	4,128
Pacific	15,778	170	1.8%	\$417.90	104.5	17,766	47,054
Pend Oreille	8,131	585	7.2%	\$92.00	137.3	80,322	100,729
Pierce	334,783	11,468	3.4%	\$87.50	69.7	799,218	1,272,156
San Juan*	13,664	0	0%	\$0	0.00	0	4,000
Skagit	52,493	4,419	8.4%	\$40.88	23.58	104,180	251,719
Skamania	5,791	289	5.0%	\$93.78	125.6	36,285	78,190
Snohomish	297,613	11,243	3.8%	\$55.90	77.6	872,669	1,752,731
Spokane	207,421	11,126	5.4%	\$26.64	65.6	730,360	1,859,149
Stevens	21,461	192	.9%	\$159.48	320.4	61,519	247,163
Thurston	113,281	15,375	13.6%	\$24.70	15.6	240,410	586,099

County	Housing Units	HHW Participants	% Participant / Housing Units	HHW Cost / Participant	HHW lbs / Participant	HHW Total lbs	HHW, SQG, & Used Oil From Limited Sites Total lbs
Wahkiakum	2,113	Inc. w/ Cowlitz	Inc. w/ Cowlitz	Inc. w/ Cowlitz	Inc. w/ Cowlitz	Inc. w/ Cowlitz	11,676
Walla Walla	24,163	1,728	7.2%	\$61.36	35.1	60,572	91,210
Whatcom	93,154	7,776	8.3%	\$43.00	39.5	307,302	481,722
Whitman	20,005	1,015	5.1%	\$69.65	30.3	30,777	67,861
Yakima	87,396	14,795	17.0%	\$18.80	12.2	181,235	937,282
STATEWIDE	2,976,797	199,585	6.7%	\$45.20	66.0	13,153,723	22,667,260

* These counties did not report in 2014 and any total pounds shown represents the amount private companies collected from CESQG's in those jurisdictions.

^^ These counties scaled back operations and any HHW pounds reported represent those collected at limited MRW sites and any CESQG amounts reported are from private companies.

^ These counties did not report participation and/or cost information numbers in 2014

Household Hazardous Waste (HHW)

Participants per Housing Unit

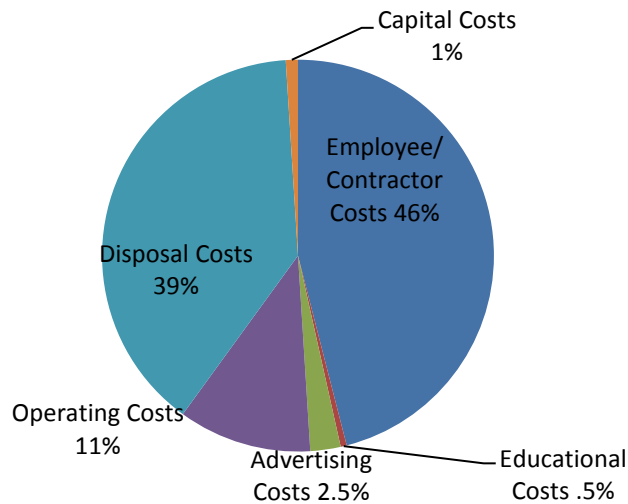
Counties that exhibit ten percent or higher of participants per housing unit provide excellent public education to encourage use of facilities or events, have very convenient locations for their collection facilities, or both.

Cost per Participant and Overall HHW Cost Breakdown

This statistic is hard to compare because of the many variables in program costs. Some programs record every cost, whether direct or indirect. Others record only the disposal and basic operation costs.

Larger counties have the advantage of efficiency in scale, both in quantities received and in disposition options. Also, there are differences in service levels of the basic program, accounting differences, and errors. However, this data does provide an idea of what is possible and an incentive to contact those counties that seem to operate efficiently. According to annual reports submitted to Ecology, HHW programs spent just over \$9.0 million in 2014 statewide (does not include CESQG costs). Figure 5.2 shows the overall breakdown of HHW costs reported to Ecology.

**Figure 5.2
2014 HHW Cost Breakdown**



HHW Pounds per Participant and per Capita

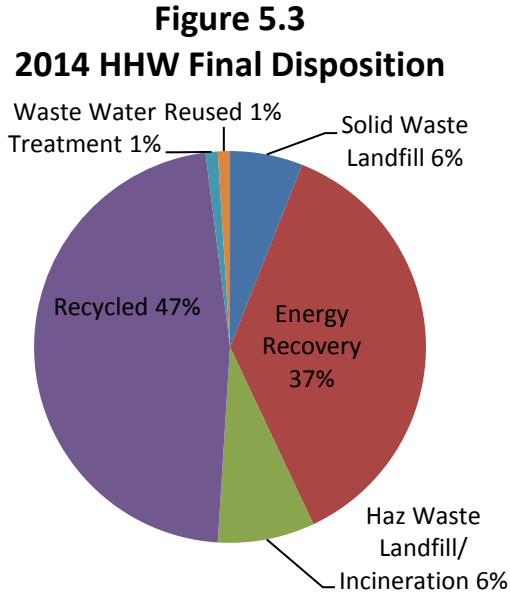
The average pounds collected statewide per participant for HHW was 66.0. Table 5.6 shows the top five counties with the highest collections of HHW in pounds per capita (not participant as shown in Table 5.5) for 2012-2014. Statewide, HHW pounds per capita collected was 1.95 pounds.

**Table 5.6
High Collections of HHW (No Used Oil Sites)
Pounds per Capita by County in 2012-14**

HHW 2012			HHW 2013			HHW 2014		
County	Size	Lbs	County	Size	Lbs	County	Size	Lbs
Cowlitz	>100K	7.75	Asotin	<50K	10.5	Asotin	<50K	11.30
Asotin	<50K	6.98	Clark	>100K	9.07	Cowlitz	>100K	8.90
Island	50-100K	6.12	Pend Oreille	<50K	8.28	Pend Oreille	<50K	6.12
Clark	>100K	6.00	Cowlitz	>100K	7.47	Clark	>100K	5.93
Klickitat	<50K	5.20	Columbia	<50K	7.04	Lincoln	<50K	5.00

HHW Disposition

Figure 5.3 shows the final disposition of all HHW collected throughout Washington State in 2014.



Conditionally Exempt Small Quantity Generator (CESQG)

Eighteen local government MRW programs collected CESQG wastes in 2014. This number is down from 2009 when there were 22 programs providing collection service to CESQGs. Some programs have decided to discontinue CESQG collection service, while others have had to suspend their CESQG collections temporarily. Okanogan County has provided CESQG collections in the past, but did not report in 2014. Following are the counties that sponsored CESQG waste collections in 2014:

Asotin	Island	Pacific
Chelan	Jefferson	Skagit
Cowlitz	King	Snohomish
Douglas	Kitsap	Thurston
Grant	Kittitas	Whatcom
Grays Harbor	Lewis	Yakima

The top five counties that publicly collected the most CESQG waste per capita in 2014 were:

- Yakima
- Whatcom
- Lewis
- Kitsap
- Island

Table 5.7 shows the total amount of CESQG waste collected publicly and privately in each county. When we take into account both public and private collection numbers, the top five counties for CESQG collections per capita in 2014 were:

- Franklin
- Clark
- Garfield
- Spokane
- Yakima

Table 5.7
2014 Washington State Public and Private CESQG Collections
in Pounds by County

County	Publicly Collected CESGQ Waste	Publicly Collected CESGQ Waste /Capita	Privately Collected CESGQ Waste	Total CESQG Waste Collected	Total CESQG Waste Collected/Capita
Adams	0	0	2,039	2,039	.11
Asotin	566	.03	1,178	1,744	.08
Benton	0	0	7,110	7,110	.04
Chelan	13,420	.18	11,446	24,866	.33
Clallam	0	0	1,454	1,454	.02
Clark	0	0	1,109,613	1,109,613	2.51
Columbia	0	0	659	659	.16
Cowlitz	8,222	.08	6,954	15,176	.15
Douglas	775	.02	6,862	7,637	.19
Ferry	0	0	0	0	0
Franklin	0	0	367,648	367,648	4.25
Garfield	0	0	3,679	3,679	1.64
Grant	200	.01	10,247	10,447	.11
Grays Harbor	11,207	.15	5,286	16,493	.23
Island	16,013	.20	1,770	17,783	.22
Jefferson	5,737	.19	653	6,390	.21
King	118,473	.06	1,040,913	1,159,386	.57
Kitsap	77,209	.30	34,555	111,764	.44
Kittitas	3,581	.09	3,245	6,826	.16
Klickitat	0	0	0	0	0
Lewis	32,099	.42	3,237	35,336	.46
Lincoln	0	0	4,231	4,231	.40
Mason	0	0	1,675	1,675	.03
Okanogan	0	0	4,128	4,128	.09
Pacific	3,510	.17	488	3,998	.19
Pend Oreille	0	0	723	723	.05
Pierce	0	0	333,641	333,641	.41
San Juan	0	0	0	0	0
Skagit	17,110	.14	13,929	31,039	.26
Skamania	0	0	225	225	.02
Snohomish	129,054	.17	87,439	216,493	.29
Spokane	0	0	667,306	667,306	1.38
Stevens	0	0	3,240	3,240	.07
Thurston	40,405	.15	24,286	64,691	.25
Wahkiakum	0	0	0	0	0
Walla Walla	0	0	3,438	3,438	.06
Whatcom	103,264	.50	16,387	119,651	.58
Whitman	0	0	8,555	8,555	.18
Yakima	144,273	.58	18,337	162,610	.65
Statewide Totals	725,118	.10	3,806,576	4,531,694	.65

Table 5.8 shows the top 12 waste categories by amount collected of publicly and privately collected CESQG wastes. The top 12 collected CESQG wastes represents just over 89 percent of all CESQG wastes collected in 2014.

Table 5.8
Twelve Most CESQG Waste Types Collected in 2014

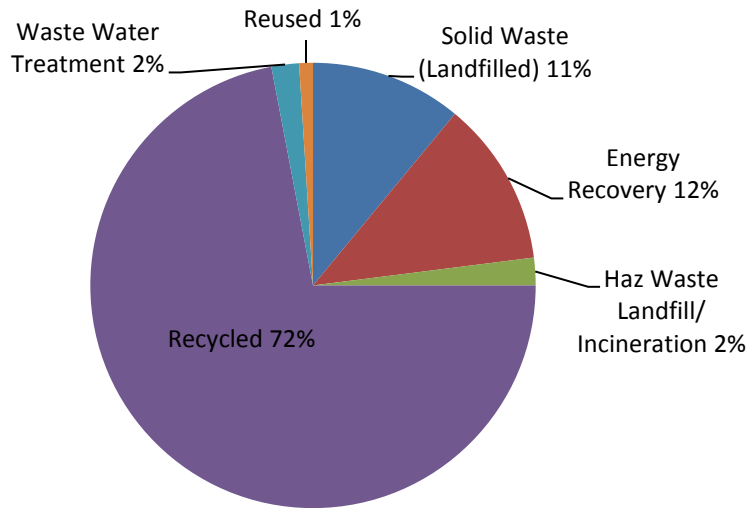
Waste Type	Total Lbs.
Antifreeze	2,239,431
Non-Regulated Solids	414,376
Used Oil – Non-Contaminated	315,986
Other Dangerous Waste	199,239
Paint Related Materials	171,458
Flammable Liquids	165,887
Paint – Oil Base	136,933
Mercury Collections	128,911
Used Oil – Contaminated	128,451
Non-Regulated Liquids	73,868
Paint – Latex	61,887
Pesticides – (Liquids & Solids)	27,640
Total	4,064,067

CESQG Disposition

Eight-four percent of all CESQG waste collected in 2014 was either recycled or used for energy recovery. See Figure 5.4 for the complete disposition breakdown of CESQG wastes in 2014. There are a couple differences between final disposition of HHW and CESQG wastes worth noting:

- 37 percent of HHW was sent for energy recovery versus 12 percent of CESQG wastes.
- More CESQG waste is disposed via a solid waste landfill (11%) compared 6% of HHW.

**Figure 5.4
2014 CESQG Final Disposition**



Collection/Mobile Events

Table 5.9 represents the number of collection/mobile events held statewide from 2012-14.

The amount of waste collected through these types of events was just under 1.8 million pounds in 2014, which is approximately 7.8 percent of all MRW collected in 2014. The Waste Mobile in King County conducted 73 mobile and collection events, including a weekly event at the Auburn Supermall that collected a little more than 1.1 million pounds of MRW in 2014.

**Table 5.9
2012-14 Collection/Mobile Event Collection Amounts**

Type of Event	Number of Events			Pounds Collected		
	2012	2013	2014	2012	2013	2014
Mobile	80	73	87	1,217,135	1,125,529	1,096,965
Collection	69	76	67	637,664	870,670	670,318
Totals:	149	149	154	1,854,799	1,996,199	1,767,283

Used Oil Sites

In 2014, facilities and collection sites reported collecting a total of 6,605,106 pounds of used oil. Used oil collection peaked statewide (12.4 million pounds) in 2004 and has mostly steadily declined over the years. Used oil collections need to be continually monitored. There are more cars on the road than ever, so one would expect this category to keep increasing. The trend to

change oil every 5,000 miles compared to 3,000 miles and less do-it-yourself oil changers may be impacting this category. Table 5.10 shows the six counties with the highest collections in pounds per capita by county size for 2012-14.

**Table 5.10
Used Oil High Collection Counties - Pounds per Capita by County Size
Collected at Facilities and Used Oil Collection Sites 2012-14**

Used Oil Sites - 2012			Used Oil Sites - 2013			Used Oil Sites - 2014		
County	Size	Lbs	County	Size	Lbs	County	Size	Lbs
Garfield	<50K	8.0	Garfield	<50K	8.4	Stevens	<50K	4.1
Stevens	<50K	4.3	Stevens	<50K	4.1	Skamania	<50K	3.3
Columbia	<50K	3.2	Columbia	<50K	3.6	Cowlitz	>100K	2.5
Asotin	<50K	3.1	Wahkiakum	<50K	3.5	Wahkiakum	<50K	2.5
Cowlitz	50K-100K	2.5	Skamania	<50K	3.4	Asotin	<50K	2.3
Lincoln	<50K	2.4	Lincoln	<50K	3.1	Yakima	>100K	2.0

Statewide Level of Service

The Washington State Office of Financial Management reported that as of 2014, Washington State had an estimated 2,976,797 housing units². MRW Annual Reports revealed there were 199,585 participants who used the services of either an MRW collection event or MRW fixed facility. The actual number of households served is larger, because most used oil sites do not record or report numbers of participants. The actual number of households served is also larger, because some participants counted at events or by facilities bring HHW from multiple households.

One way to estimate the approximate number of households served is to add ten percent to the participant values. This method gives an estimate of 219,543 participants served in 2014. This number represents 7.4 percent of all households in Washington State. Table 5.11 shows the percent of participants served statewide since 2003.

²This information was downloaded from <http://www.ofm.wa.gov/>

Table 5.11
Percent of Participants Served Statewide

Year	Percent Participants Served	Year	Percent Participants Served
2003	8.9	2009	8.3
2004	8.9	2010	7.9
2005	9.0	2011	7.8
2006	8.6	2012	6.9
2007	9.1	2013	7.4
2008	8.7	2014	7.4