



Fall 2024 Mobile HHW Analysis

Season Report



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#### Overview

Since the program's inception in 1993, the Tennessee Department of Environment and Conservation (TDEC) continues to provide the Tennessee Household Hazardous Waste Mobile Collection Event services to counties to aid in the management of household hazardous wastes (HHW). Regulations for HHW are found in Tennessee Code Annotated <u>Title 68 chapter 211</u>. To date, there have been over 1,500 one-day collection events with over 381,000 Tennessee families safely disposing nearly 25 million pounds of HHW.

HHW is any unwanted, spent, used household product that can catch fire easily (flammable); eat away at or irritate living tissue (corrosive, both acid and base); react violently with water or other chemicals (reactive); or is poisonous to humans or animals (toxic). Usable household products may exhibit hazardous properties but until they become a waste, they are not appropriate for the HHW program.

The Mobile Collection Service is open to any Tennessee resident and is limited to households. Businesses, institutions, schools, and agri-business operations may not use this service, but can participate as a Very Small Quantity Generator (VSQG) which can assist with reduced mobilization fees for proper business waste disposal. Persons or businesses interested in participating in the business waste should refer to the following web site: <a href="https://www.tn.gov/environment/sw-mm-household-hazardous-waste-program/very-small-quantity-generators.html">https://www.tn.gov/environment/sw-mm-household-hazardous-waste-program/very-small-quantity-generators.html</a>.

Counties request mobile HHW events using a tiered priority listing provided by TDEC. Interested parties can find the tiered guidelines on the Department's website in the <u>Mobile HHW Collection Service Guide</u>. As the county requests are submitted, the schedule is set trying to maximize access of the majority of the citizens.

# Season Participation Analysis

The 2024 Fall HHW (August 17<sup>th</sup> – November 2<sup>nd</sup>) event season ended with 24 counties hosting 2,718 households versus 20 counties and 2,415 households in Fall 2023. Carter and Unicoi Counties were scheduled for events in Fall 2024, but had to be cancelled due to the flooding caused by Hurricane Helene. The season saw an 24.54% increase in participation when evaluated among counties with comparative events in Fall 2023 (see table 3).

Batteries, Oil, Paint, Electronics and Antifreeze (BOPAE) continue to be a focus by the counties through the year. The Department conducted fourteen oil-based paint and ten fluorescent lamp milk runs in Fall 2024. The frequency and convenience of BOPAE collections provides added service for the citizens and spreads the workload for the collection sites. TDEC provided laminated paint job aids that assisted counties to identify and segregate oil paint that needed to be collected. These tips for identifying latex and water-based paint were useful to help solidify and manage latex paint in the solid waste stream.

In an effort to increase year-round access for HHW disposal, the Department has strategically placed seven temporary HHW containers across the state (Chester, Giles, Blount, McMinn, Loudon, Sevier, and Grainger Counties) that are available to all citizens of Tennessee. In the second half of 2024, the containers collected 12,842 lbs. of HHW via three milk runs at a cost of \$24,404.04.

The season concluded with a total of 168,354 pounds of discarded household hazardous waste that was collected in the combined 51 events (24 milk runs of oil-based paint, bulbs, and other HHW for a total of 71,605 pounds, 3 temporary HHW container disposal events, and the 24 mobile HHW events included in tables 1-3). The Department



collected through mobile events and milk runs: oil based paint, fluorescent bulbs, and other HHW at county facilities throughout the year and then picked up these materials by a contractor for proper disposal that resulted in a total cost of \$273,799.59 (milk runs cost \$23,058.09, other HHW is included in the above paragraph and in tables 1-3).

Summary of mobile HHW materials collected (Additional Data in Tables 1-3)

- Corrosive acids (Sulfuric acid, phosphoric acid, CLR cleaner, muriatic acid, battery acid); 2,899 pounds
- Corrosive Bases (Drano, sodium hydroxide); 4,791 pounds
- Pesticides, herbicides, rat poisons, insecticides, animal medications; 27,645 pounds
- Flammables, gasoline, charcoal lighter, kerosene, paint thinners; 15,334 pounds
- Aerosols, paint, health & beauty aids, insecticides, lubricants, cleaners; 6,209 pounds
- Mercury; 29 pounds
- Oxidizers, bleach, chlorine, pool sanitizers; spa and hot tub sanitizers; 890 pounds

## **Advertising**

The Materials Management Program requires advertising and information sharing. The Department shared as an outreach to the counties, recommendations for advertising and promoting the events to help maximize communication opportunities in the serviced areas. The Program encouraged counties and participating organizations to reach out to public utilities, business employee newsletters, social media, and other forms of information sharing. Additionally, TDEC Central Office shared the schedule at the beginning of the 2024 by using Emma as a platform for sending emails to interested citizens who have shared email addresses. Department drug take back programs coordinated by some counties increased the take back of products and increased awareness of the hazards of pharmaceuticals in households. Additional events associated with HHW collection events at some counties included beneficial item collection with local non-profits and electronics collections.

## Safety

TDEC Materials Management Program considers safety the highest priority for state, county, volunteer staff, and participants. The TDEC event staff prioritized safety by wearing high visibility safety vests, making first aid kits available and providing additional event resource materials that encourage site safety. Many event staff workers have received CPR and AED training with a goal for all staff to be prepared for unexpected situations that may occur at mobile events. Clean Harbors, the event contractor, provides an onsite chemist and additional technical staffing who assists with the proper segregation of chemicals and Department of Transportation (DOT) requirements for safe packaging and transportation.

As industries develop household materials that may cause problems for proper disposal or impacts safe management, TDEC searches for consumer-based solutions. Disposal option challenges for sharps, needles, lancets, and auto inject pens caused the Program to expand this option to HHW mobile events. As participants remove these materials from the solid waste stream, the safety of solid waste staff, haulers, landfill staff and maintenance staff is greatly increased. HHW participants appreciate this added option and benefit from this expansion.



The Program urges counties to submit their recommended dates by December 1, 2025 so that staff may schedule the upcoming year's events by mid-January 2026. The Department will post the mobile event schedule at <a href="http://tn.gov/environment/hhw/schedule">http://tn.gov/environment/hhw/schedule</a> for public review.

		Individual Cou	unties-Participati			
County	Event Date	Participation	Cost	Cost/HH	Cost/lb.	lbs./HH
Anderson	10/5/2024	224	\$19,813.81	\$88.45	\$2.71	32.67
Bedford	9/28/2024	23	\$1,717.12	\$74.66	\$2.72	27.48
Cheatham	10/26/2024	81	\$7,862.62	\$97.07	\$3.02	32.17
Coffee	9/21/2024	101	\$11,283.22	\$111.72	\$3.69	30.30
Cumberland	10/12/2024	187	\$11,718.94	\$62.67	\$3.75	16.71
Decatur	9/21/2024	8	\$223.84	\$27.98	\$2.22	12.63
Dickson	9/21/2024	81	\$5,330.01	\$65.80	\$2.44	26.98
Greene	9/7/2024	111	\$10,752.83	\$96.87	\$3.02	32.05
Grundy	10/12/2024	5	\$492.08	\$98.42	\$0.81	122.00
Henry	8/17/2024	150	\$3,568.73	\$23.79	\$3.04	7.83
Hickman	9/14/2024	20	\$2,229.06	\$111.45	\$3.36	33.15
Houston	10/5/2024	12	\$986.81	\$82.23	\$2.10	39.25
Jefferson	10/19/2024	39	\$4,266.73	\$109.40	\$3.12	35.05
Madison	10/26/2024	155	\$7,807.50	\$50.37	\$2.73	18.45
Marshall	9/14/2024	31	\$5,124.44	\$165.30	\$3.36	49.13
Maury	9/7/2024	108	\$9,970.97	\$92.32	\$2.79	33.06
Monroe	9/14/2024	66	\$3,387.48	\$51.33	\$1.77	28.98
Montgomery	9/28/2024	286	\$18,456.75	\$64.53	\$2.84	22.69
Overton	9/7/2024	21	\$1,611.86	\$76.76	\$1.88	40.86
Rutherford	11/2/2024	235	\$24,125.89	\$102.66	\$2.47	41.51
Sullivan	9/28/2024	203	\$17,416.86	\$85.80	\$2.79	30.73
Sumner	10/19/2024	240	\$22,030.62	\$91.79	\$2.79	32.96
Warren	8/24/2024	69	\$5,165.35	\$74.86	\$2.23	33.51
Wilson	10/5/2024	325	\$32,993.93	\$101.52	\$2.42	41.87
	Season Totals	2,781	\$228,337.45	Average \$83.66	Average \$2.67	Average 34.25



	Individual Counties-Participation-Table 2A of 3 (weight in pounds)						de)	
	Flammable	ammable Non Flam Poisonous					usj	
Carrete			0.11		۸ ما ما	Caustina	Ouldinger	Doostives
County	Liquids	Liquid	Oil		Acid			Reactives
Anderson	1184	840		2299	259	462	24	
Bedford	36	219		169	25	95		
Cheatham	854			1144	108	167	14	
Coffee	424	283		1716	274	137	16	_
Cumberland	141	388		1949	141	207		3
Decatur	28			30		5		
Dickson	265	848		577	78	141	13	
Greene	509	637		1409	84	138	7	35
Grundy	416	164		12				
Henry	126	143		393	53	91		
Hickman	50	138		279	14	9	34	
Houston	231			111	27	16		
Jefferson	340	117		649	52	95	7	2
Madison	458	796		901	98	142		
Marshall	128	308		678	87	114	51	
Maury	655	955		1377	91	176	15	
Monroe	571	788		321	7	40	43	
Montgomery	1158	1580		2070	212	539	174	
Overton	391	10		161		13	5	
Rutherford	2052	2386	310	2527	282	468	118	
Sullivan	728	1665		2182	170	322	32	
Sumner	1552	1950		2549	217	613	155	10
Warren	1164			553	120	141		
Wilson	1873	4042		3589	500	660	182	
Season Totals	15,334	18,257	310	27,645	2,899	4,791	890	50



		Individual Counties-Participation-Table 2B of 3 (weight in pounds)						
		Aerosols/						
		Compressed	Fluorescent			Dry Cell	Fire	
County	Oil Paint	Gas	Lamps	Mercury	Sharps	Batteries	Extinguishers	Total
Anderson	1558	438	148	1	93		12	7318
Bedford		27	54		7			632
Cheatham		244	59	1	15			2606
Coffee		118	1	1	74		16	3060
Cumberland		249	22	1	24			3125
Decatur	34	2	1		1			101
Dickson		146	93	1	22		1	2185
Greene	303	340	70	1	25			3558
Grundy	18							610
Henry		188	166		14			1174
Hickman		79	29		29		2	663
Houston	50	19	16		1			471
Jefferson		100	1	2	2			1367
Madison		339	86	4	35			2859
Marshall		127			30			1523
Maury		272	23		7			3571
Monroe	54	81	3		5			1913
Montgomery		555	119	1	81			6489
Overton	189	65	21		3			858
Rutherford	572	638	140	11	79	172		9755
Sullivan	244	582	251	1	49		12	6238
Sumner		634	64	3	163			7910
Warren	96	109	66		63			2312
Wilson	1600	857	258	1	47			13609
<b>Season Totals</b>	4,718	6,209	1,691	29	869	172	43	83,907



HHW County Participation Comparison Table 3 of 3						
County	Fall 24	Fall 23	Fall 24/23			
Anderson	224	200	12.00%			
Bedford	23	32	-28.13%			
Cheatham	81	33	145.45%			
Coffee	101	85	18.82%			
Cumberland	187	209	-10.53%			
Greene	111	103	7.77%			
Henry	150	115	30.43%			
Hickman	20	28	-28.57%			
Jefferson	39	71	-45.07%			
Madison	155	251	-38.25%			
Marshall	31	62	-50.00%			
Maury	108	85	27.06%			
Monroe	66	35	88.57%			
Montgomery	286	239	19.67%			
Overton	21	7	200.00%			
Rutherford	235	162	45.06%			
Sullivan	203	185	9.73%			
Sumner	240	235	2.13%			
Wilson	325	203	60.10%			
Households	2781	2340	24.54%			

The Fall 2024 HHW event season ended with 24 counties hosting 2,781 households versus 20 counties and 2,415 households in Fall 2023. A 24.54% increase in participation from the 2023 Fall season can be seen when evaluated using same counties. Five counties that had a Fall 2024 event did not have an event in Fall 2023.



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