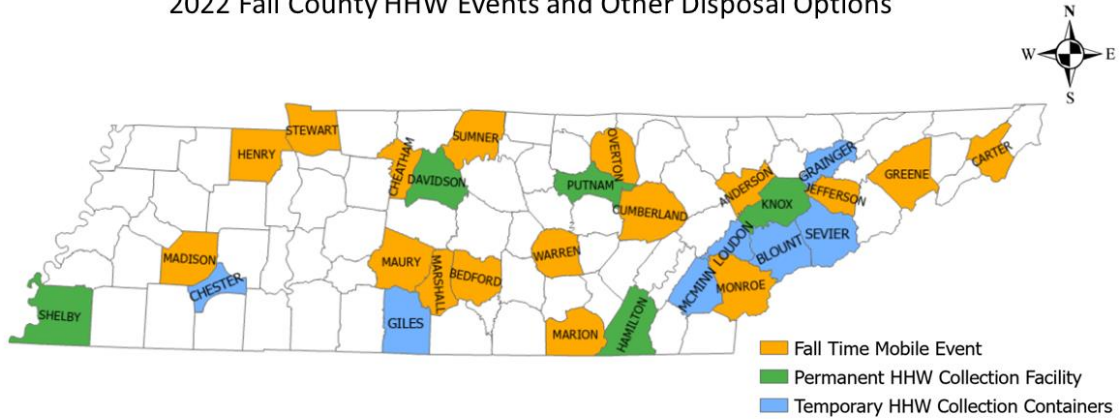


2022 Fall County HHW Events and Other Disposal Options



# Fall 2022 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 [Title 68 chapter 211](#). To date, there have been over 1,450 one-day collection events with over 370,000 Tennessee families safely disposing over 24 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: <https://www.tn.gov/environment/sw-mm-household-hazardous-waste-program/very-small-quantity-generators.html>.

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 [Mobile HHW Collection Service Guide](#). As the county requests are submitted, the schedule is set trying to maximize access of the majority of the citizens.

## Season Participation Analysis

The 2022 Fall HHW (August 27<sup>th</sup> – October 29<sup>th</sup>) event season ended with 17 counties hosting 1,872 households versus 38 counties and 5,271 households in Fall 2021. The season saw an 14.99% decrease in participation when evaluated among counties with comparative events in Fall 2021 (see table 3). It should be noted that the COVID-19 pandemic caused a year and a half break in HHW Mobile Collection events, so Fall 2021 was an unusual season because it had more than twice the events as normal.

Batteries, Oil, Paint, Electronics and Antifreeze (BOPAE) continue to be a focus by the counties through the year. The Department conducted nineteen oil-based paint and thirteen fluorescent lamp milk runs in Fall 2022. 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 2022, the containers collected 7,230 lbs. of HHW via three milk runs.

The season concluded with a total of 154,361 pounds of discarded household hazardous waste that was collected in the combined 53 events (36 milk runs of oil-based paint, bulbs, and other HHW for a total of 102,613 pounds, other

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 \$170,318.77 (milk runs, \$42,951.75 other included 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); 1,777 pounds
- Corrosive Bases (Drano, sodium hydroxide); 2,864 pounds
- Pesticides, herbicides, rat poisons, insecticides, animal medications; 16.076 pounds
- Flammables, gasoline, charcoal lighter, kerosene, paint thinners; 10,444 pounds
- Aerosols, paint, health & beauty aids, insecticides, lubricants, cleaners; 4,141 pounds
- Mercury; 56 pounds
- Oxidizers, bleach, chlorine, pool sanitizers; spa and hot tub sanitizers; 234 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 Fall HHW season by using MyEmma 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, 2023 so that staff may schedule the upcoming year's events by mid-January 2024. The Department will post the mobile event schedule at <http://tn.gov/environment/hhw/schedule> for public review.

<b>Individual Counties-Participation-Table 1 of 3</b>						
<b>Event Date</b>	<b>County</b>	<b>Participation</b>	<b>Cost</b>	<b>cost/HH</b>	<b>Cost/lb</b>	<b>lbs/HH</b>
10/1/2022	Anderson	149	\$12,761.97	\$85.65	\$2.66	32.20
9/24/2022	Bedford	46	\$4,069.71	\$88.47	\$2.27	38.98
10/22/2022	Carter	74	\$6,036.79	\$81.58	\$2.08	39.28
10/8/2022	Cheatham	88	\$9,287.88	\$105.54	\$2.47	42.75
10/1/2022	Cumberland	272	\$10,993.97	\$40.42	\$2.85	14.20
9/10/2022	Greene	91	\$10,115.28	\$111.16	\$1.72	64.53
8/27/2022	Henry	133	\$7,721.17	\$58.05	\$3.73	15.58
10/15/2022	Jefferson	51	\$4,141.77	\$81.21	\$3.16	25.71
10/22/2022	Madison	361	\$11,294.18	\$31.29	\$2.61	11.99
10/8/2022	Marion	17	\$1,812.41	\$106.61	\$2.13	50.06
9/10/2022	Marshall	70	\$6,115.82	\$87.37	\$2.44	35.83
9/24/2022	Mauzy	87	\$8,764.03	\$100.74	\$2.86	35.21
10/1/2022	Monroe	55	\$5,188.35	\$94.33	\$2.46	38.29
9/10/2022	Overton	20	\$974.53	\$48.73	\$2.45	19.85
9/17/2022	Stewart	48	\$2,955.91	\$61.58	\$2.04	30.19
10/29/2022	Sumner	220	\$20,363.45	\$92.56	\$2.36	39.25
9/17/2022	Warren	90	\$4,769.80	\$53.00	\$2.35	22.59
	<b>Season Totals</b>	<b>1,872</b>	<b>\$127,367.02</b>	<b>Average \$78.13</b>	<b>Average \$2.51</b>	<b>Average 32.73</b>

Individual Counties-Participation-Table 2A of 3 (weight in Pounds)								
County	Flammable Liquids	Non Flam Liquid	Poisonous Material	Acid	Caustics	Oxidizers	Reactives	Dry Cell Batteries
Anderson	616	769	1,874	238	230	23		
Bedford	210	448	467	75	88	15		
Carter	916		767	74	126	17		
Cheatham	524	1,080	1,391	95	221	27		
Cumberland	376	563	1,693	145	164	7		
Greene	1,969	684	953	176	66	56	23	
Henry	63	175	955	78	72	20		
Jefferson	187	175	452	91	171	6		
Madison	647	1,083	1,521	116	307	11		
Marion	133	251	153	18	95	10		
Marshall	1,008		455	140	224	9		
Maury	360	717	1,135	162	178	7		
Monroe	306	725	596	95	246			
Overton	170		119	12	16			
Stewart	534	306	430	8	83	1		
Sumner	1,934	2,169	2,481	227	441	24		47
Warren	491	439	634	27	136	1		
<b>Season Totals</b>	<b>10,444</b>	<b>9,584</b>	<b>16,076</b>	<b>1,777</b>	<b>2,864</b>	<b>234</b>	<b>23</b>	<b>47</b>

Individual Counties-Participation-Table 2B of 3 (Weight in Pounds)							
County	Oil Paint	Aerosols/ Compressed Gas	Oil	Mercury	Fluorescent Lamps	Sharps	Total
Anderson	664	289		2	69	24	4,798
Bedford	324	71		2	82	11	1,793
Carter	658	78		1	253	17	2,907
Cheatham	141	195			57	31	3,762
Cumberland	253	428	132	1	78	23	3,863
Greene	621	211	84		1,006	23	5,872
Henry	121	385		43	143	17	2,072
Jefferson		195		1	17	16	1,311
Madison		476			153	13	4,327
Marion	162	24		1		4	851
Marshall	174	382		1	79	36	2,508
Maury	64	360		3	39	38	3,063
Monroe		115		1	6	16	2,106
Overton		62			11	7	397
Stewart		69			15	3	1,449
Sumner	480	626			71	136	8,636
Warren		175			83	47	2,033
<b>Season Totals</b>	<b>3,662</b>	<b>4,141</b>	<b>216</b>	<b>56</b>	<b>2,162</b>	<b>462</b>	<b>51,748</b>

HHW County Participation Comparison Table 3 of 3			
County	Fall 22	Fall 21	Fall 22/21
Anderson	149	155	-3.87%
Bedford	46	50	-8.00%
Carter	74	128	-42.19%
Cheatham	88	92	-4.35%
Cumberland	272	381	-28.61%
Greene	91	120	-24.17%
Henry	133	184	-27.72%
Jefferson	51	57	-10.53%
Madison	361	493	-26.77%
Marion	17	27	-37.04%
Marshall	70	73	-4.11%
Maury	87	97	-10.31%
Monroe	55	29	89.66%
Overton	20	13	53.85%
Stewart	48	41	17.07%
Sumner	220	183	20.22%
Warren	90	79	13.92%
<b>Households</b>	<b>1,872</b>	<b>2,202</b>	<b>-14.99%</b>

The Fall 2022 HHW event season ended with 17 counties hosting 1,872 households versus 38 counties and 5,271 households in Fall 2021. A 14.99% decrease in participation from the 2021 Fall season can be seen when evaluated using same counties. It should be noted that the COVID-19 pandemic caused a year and a half break in HHW Mobile Collection events, so Fall 2021 was an unusual season because it had more than twice the events as normal.



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