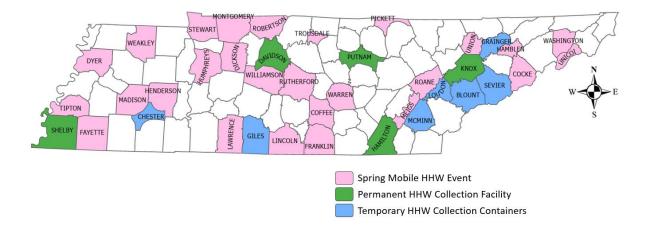


2023 Spring County HHW Events and Other Disposal Options



Spring 2023 Mobile HHW Analysis Season Report

Tennessee Department of Environment & Conservation | October 2023

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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 close to 1,500 one-day collection events with over 372,000 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 <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 2023 Spring HHW (March 11th – May 20th) event season ended with 27 counties hosting 2,279 households versus 16 counties and 2,220 households in Spring 2022. The season saw an 1.4% decrease in participation when evaluated among counties with comparative events in Spring 2022 (see table 3).

Batteries, Oil, Paint, Electronics and Antifreeze (BOPAE) continue to be a focus by the counties through the year. The Department conducted sixteen oil-based paint and seventeen fluorescent lamp milk runs in Spring 2023. 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 first half of 2023, the containers collected 17,567 lbs. of HHW via three milk runs.

The season concluded with a total of 179,446 pounds of discarded household hazardous waste that was collected in the combined 64 events (34 milk runs of oil-based paint, bulbs, and other HHW for a total of 91,672 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 \$226,628.78 (milk runs, \$30,752.17 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); 2,131 pounds
- Corrosive Bases (Drano, sodium hydroxide); 3,926 pounds
- Pesticides, herbicides, rat poisons, insecticides, animal medications; 23,318 pounds
- Flammables, gasoline, charcoal lighter, kerosene, paint thinners; 13,198 pounds
- Aerosols, paint, health & beauty aids, insecticides, lubricants, cleaners; 5,129 pounds
- Mercury; 53 pounds
- Oxidizers, bleach, chlorine, pool sanitizers; spa and hot tub sanitizers; 670 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 Spring 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.

		Individual Cour	nties-Participati			
Event Date	txtCounty	Participation	Cost	Cost/HH	Cost/lb	lbs/HH
4/29/2023	Cocke	2	\$0.00	\$0.00	\$0.00	\$0.00
4/15/2023	Coffee	132	\$6,541.35	\$49.56	\$1.93	\$25.63
3/11/2023	Dickson	104	\$6,359.12	\$61.15	\$2.15	\$28.40
4/29/2023	Dyer	41	\$4,376.53	\$106.74	\$2.42	\$44.02
3/18/2023	Fayette	46	\$8,008.03	\$174.09	\$3.44	\$50.63
3/25/2023	Franklin	202	\$8,891.52	\$44.02	\$2.76	\$15.93
4/1/2023	Hamblen	45	\$3,634.62	\$80.77	\$2.42	\$33.42
3/25/2023	Henderson	40	\$3,480.58	\$87.01	\$2.30	\$37.78
5/13/2023	Humphreys	55	\$3,094.91	\$56.27	\$2.33	\$24.15
3/25/2023	Lawrence	23	\$2,555.56	\$111.11	\$2.22	\$50.09
4/1/2023	Lincoln	98	\$5,989.05	\$61.11	\$2.75	\$22.26
5/20/2023	Madison	190	\$6,056.26	\$31.88	\$3.40	\$9.37
4/15/2023	Meigs	14	\$1,177.00	\$84.07	\$1.76	\$47.86
3/18/2023	Montgomery	183	\$15,699.70	\$85.79	\$3.65	\$23.54
4/29/2023	Pickett	23	\$2,527.48	\$109.89	\$2.89	\$38.04
5/6/2023	Roane	84	\$7,594.57	\$90.41	\$2.91	\$31.12
5/13/2023	Robertson	41	\$4,225.13	\$103.05	\$1.93	\$53.44
4/1/2023	Rutherford	175	\$15,757.52	\$90.04	\$2.25	\$39.97
5/20/2023	Stewart	47	\$2,626.54	\$55.88	\$1.38	\$40.43
5/13/2023	Tipton	75	\$8,004.14	\$106.72	\$3.40	\$31.35
4/15/2023	Trousdale	6	\$991.20	\$165.20	\$2.22	\$74.50
3/18/2023	Unicoi	29	\$826.43	\$28.50	\$2.35	\$12.10
5/6/2023	Union	12	\$1,376.06	\$114.67	\$1.85	\$62.00
4/22/2023	Warren	46	\$4,391.61	\$95.47	\$2.48	\$38.46
4/22/2023	Washington	100	\$9,557.53	\$95.58	\$2.50	\$38.17
4/15/2023	Weakley	29	\$2,651.41	\$91.43	\$2.41	\$37.90
4/22/2023	Williamson	437	\$45,669.89	\$104.51	\$2.70	\$38.75
	Season Totals	2,279	\$182,063.74	Average \$84.63	Average \$2.40	Average \$35.16



	Individual Counties-Participation-Table 2A of 3 (Weight in Pounds)								
County	Flammahl		Poisonous Material	Acid	Caustics	Ovidiaara	Reactives	Dry Cell	
County	Flammabl								
Cocke	229	-	0	0	0 123	0	0	C	
Coffee			601	182					
Dickson	591		636 501	76 48	110 52	83		21	
Dyer	119						2	21	
Fayette	53		1461	127	90		2		
Franklin	455		1319	191	115	25			
Hamblen	366		586	24	57	10			
Henderson	203		336	50	87	50			
Humphreys	355		356	8	72	2			
Lawrence	612		218	16	73				
Lincoln	313		695	114	77	114			
Madison	226		539	7	288	52			
Meigs	339		202	5	5	3			
Montgomery	979		1815	217	413	60			
Pickett	54		342	41	29	26			
Roane	439		872	82	355	14			
Robertson	345	907	555	49	39	1			
Rutherford	1065	2410	1807	184	390	10	9		
Stewart	776	761	246	45		12			
Tipton	133	283	1256	84	60	3			
Trousdale	37	35	77	12				6	
Unicoi	88		101		22	3			
Union			80		6				
Warren	120	720	754	19	62	3			
Washington	1190	562	1266	76	231	50			
Weakley	329	191	429	20	32	3			
Williamson	3782	1974	6268	454	1138	143			
Season Totals	13198	15187	23318	2131	3926	670	78	27	



	Individua	l Counties-Par	ticipation-	Table 2B o	f 3 (Weight iı	n Pounds)		
County	Oil Paint	Aerosols/ Compressed Gas	Oil	Mercury	Fluorescent Lamps	Fire Extinguishers (not lbs)	Sharps	Total
Cocke	0	0	0	0	-		0	0
Coffee		141			222		38	3,383
Dickson		174		2	55		31	2,954
Dyer	409	170		1	104		17	1,805
Fayette		176		1	39		16	2,329
Franklin		214		1	53		8	3,217
Hamblen	10	65			18		3	1,504
Henderson		90			60		3	1,511
Humphreys		158			72		25	1,328
Lawrence	56	166			11			1,152
Lincoln	127	98		2				2,181
Madison		196		2	84		19	1,780
Meigs		7	104				5	670
Montgomery		619		4	77		109	4,307
Pickett	21	50			30	1	29	875
Roane		257	240	1	33		64	2,614
Robertson		94			199		2	2,191
Rutherford	506	446		3	127		38	6,995
Stewart		39			17		4	1,900
Tipton	151	338		4	26		13	2,351
Trousdale	202	52			26			447
Unicoi	76	23			38			351
Union	637	17		4				744
Warren		67			12		12	1,769
Washington		269		5	168			3,817
Weakley		65			27		3	1,099
Williamson	1,785	1,138		23	175		53	16,933
Season Totals	3,980	5,129	344	53	1,673	1	492	70,207



HHW County Participation Comparison Table 3 of 3								
County	Spring 23	Spring 22	Spring 23/22					
Cocke	2	35	-94.29%					
Coffee	132	193	-31.61%					
Dyer	41	70	-41.43%					
Fayette	46	66	-30.30%					
Franklin	202	202	0.00%					
Hamblen	45	315	-85.71%					
Lincoln	98	29	237.93%					
Montgomery	183	406	-54.93%					
Roane	84	82	2.44%					
Rutherford	175	150	16.67%					
Tipton	75	91	-17.58%					
Union	12	23	-47.83%					
Washington	100	54	85.19%					
Weakley	29	20	45.00%					
Williamson	437	458	-4.59%					
Households	1661	2194	-1.40%					

The Spring 2023 HHW event season ended with 27 counties hosting 2,279 households versus 16 counties and 2,220 households in Spring 2022. A 1.4% decrease in participation from the 2022 Spring season can be seen when evaluated using same counties. Twelve counties that had a Spring 2023 event did not have an event in Spring 2022.



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