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DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Waste Management

Updates to Municipal Waste Planning

Solid Waste Advisory Committee Meeting
June 26, 2024

Josh Shapiro, Governor

Jessica Shirley, Acting Secretary

History

- The Planning Section was eliminated from DEP's Central Office in 2009.
- The absence of support from Central Office created inconsistency across the DEP Regions.
- The *Guidelines for Development and Implementation of County Municipal Waste Management Plan Revisions* was last updated in January of 2010.
- Since the inception of Act 101 of 1988, there have been significant advancements in the industry.

County Planning Today

- Renewed support in 2023 from Central Office with the hiring of Janet Heindel, Central Office Planning Coordinator.
- The Planning Coordinator will provide guidance and recommendations to the Regional Offices.
- The Planning Coordinator will concurrently review county plans with the Regional Recycling Coordinator to ensure consistency throughout the Commonwealth in the analysis of County Solid Waste Management Plans.
- These reviews will be conducted to meet the provisions of 25 Pa. Code Chapter 272 and Act 101.

▶ Technical Guidance Document Update

- The *Guidelines for Development and Implementation of County Municipal Waste Management Plan Revisions* is being revised to reflect changes that have occurred in the waste and recycling industry since 2010.
- The comprehensive rewrite will provide DEP Regional staff with updated information to assist counties in the development and submission of county plans.

▶ Technical Guidance Document Update

- The guidance document will supplement the existing regulatory requirements.
- Updated case law to include the 2015 Clearfield County case.
- Importance of waste reduction and waste diversion.

➤ Technical Guidance Document Update

- Change in metrics to evaluate an integrated waste management system, including:
 - Information and links to relevant data sources for accuracy and consistency.
 - The importance of capturing residential and commercial tons recycled.
 - Increased emphasis on the environmental benefits of recycling using the EPA WARM Model.
 - Recycling rates are not a useful metric in determining the success of a recycling program.

Future Goals

- Continuous improvement of recycling programs from new technology, advancements, and trends in the waste and recycling industry.
- Reintroduction of annual county planning progress reports to evaluate the development and improvements as recommended in the plan revision.
- Revision of metrics to evaluate a recycling program as introduced in 1988 with Act 101 to assess plans based on current industry conditions.

Recycling Rates

- Although required by regulation to be included in county plans, recycling rates are not an accurate metric to determine a recycling program's success.
- To ensure consistency, the revised planning document will provide a standard calculation to determine recycling rates.
- Increase emphasis will be placed on the following:
 - A detailed analysis for each type of waste showing the extent to which recycling reduces the amount of waste requiring disposal.
 - Environmental benefits derived from the EPA WARM model.
 - Economic benefits gained by recycling.



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Questions?

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Lithium-Ion Battery Update

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Lithium Batteries

- Two main categories
 - Lithium-metal: Lithium primaries; single-use; non-rechargeable.
 - Lithium-ion: rechargeable; multiple chemistries; no metallic lithium.

Consumer Battery Collection in PA

- Regulation
- PA Collection Programs
 - Household hazardous waste (HHW) collection programs
 - E-waste collection drop-off (municipal, retail, etc.)
 - Retail Battery Drop-off (Home Depot, Lowes, Staples, etc.)

Lithium Battery Problems

- Consumer Lithium Batteries
 - Fire hazard when improperly managed (household disposal)
 - Barriers to proper management (lack of collection programs, education)
- Improper management
 - Risk to persons and infrastructure

DEP Actions

- PA RMC Battery Recycling Summit
- Education effort
 - Department of Energy (DOE) Funding request
 - 901 HHW Education Grants
 - Update DEP educational material
- Collection effort
 - Encourage and expand battery collection through existing programs

Education Efforts

- DOE Funding Opportunity
 - Four topic areas offered for grant application
 - 1) Expand consumer participation in consumer battery recycling programs
 - 2) Improving economics of recycling batteries
 - 3) State and local programs for consumer battery collection, recycling and reprocessing
 - 4) Retailer programs for consumer battery collection

Education Efforts

- Expand consumer participation in consumer battery recycling programs
 - DEP concept
 - ✓ Funding for a state education grant
 - ✓ Education objectives: Increase collection/diversion rate, increase consumer awareness, safety and fire prevention
 - No invitation for full application
 - ✓ 901 HHW Education

Education Efforts

- 901 HHW Education Grant
 - \$75,000 per county
 - 80/20 award/match
- Adjust Grant Scope
 - Lithium battery focus material
 - Safety, handling, advertising of collection programs, etc.

Education Efforts

- LCSWMA: 901 HHW grant recipient
 - Lithium battery educational campaign
 - ✓ Webpage, social media, newspaper, mailers, billboards, etc.
 - Assessment
 - ✓ Performance and results
 - ✓ Recommendations for future 901 HHW applicants

Education Efforts

- DEP lithium battery fact sheets
- DEP battery webpage
- DEP lithium battery pamphlet

Lithium Battery Collections

- HHW/Electronics Collection Programs
 - Encourage expansion to include batteries (collection contractor or battery box mail-back)
 - 50% program reimbursement grant for batteries
- Retail Collection Programs
 - Home Depot, Lowes, Staples, Call2Recycle, etc.
 - Single-use vs Rechargeable
 - Battery size (300Wh, 11 lbs.)

Going Forward

- Monitor lithium battery management updates
 - EPA Universal Waste Rule update for lithium batteries
 - ✓ Response to 2021 EPA report on lithium battery fires in the waste management process
 - State Legislation
 - ✓ HB 2241 (Portable Battery Stewardship)



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Hazardous Waste Capacity Update

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Hazardous Waste Capacity

- PA Capacity
- National Capacity
- Incinerator Backlog
- Impacts on the Commonwealth



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Household Hazardous Waste (HHW) Collection Program Update

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Program Overview

- Households and small businesses can participate
- Counties, municipalities, non-profits, and for-profits may sponsor
- Collection event types:
 - On-Going, Curbside, One-Day

Program Overview

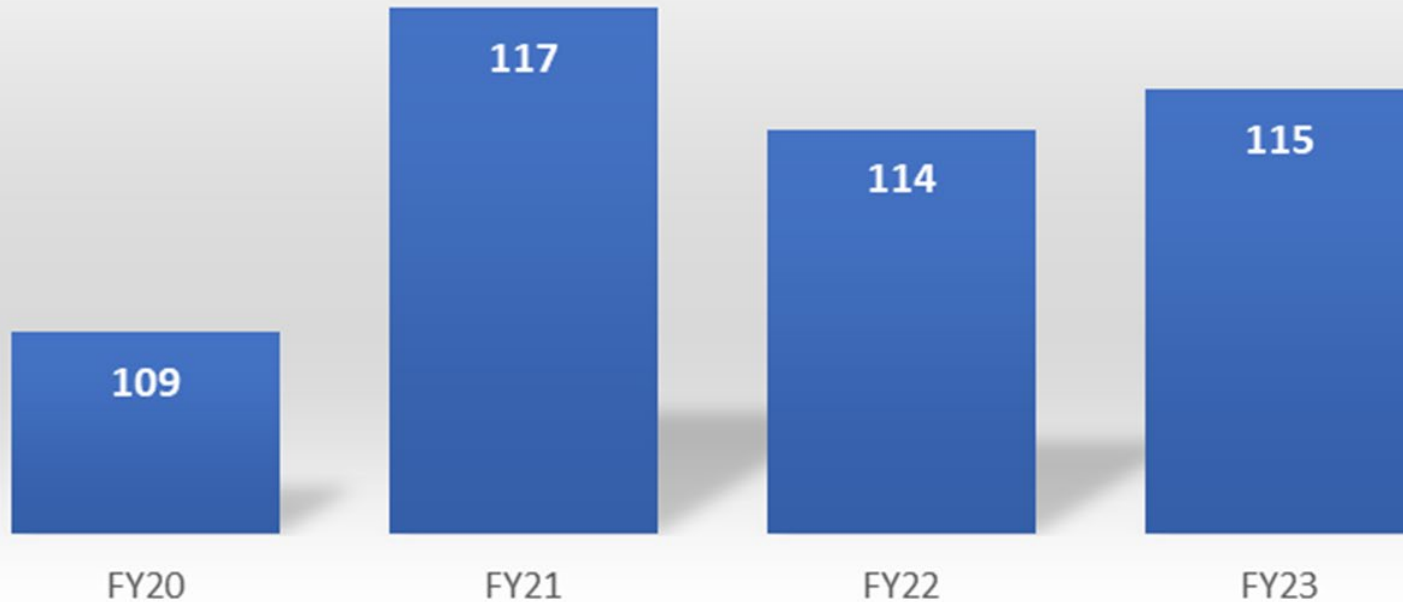
- Act 190
 - DEP can reimburse up to 50% of eligible costs
 - ✓ Wages, mobilization/demobilization, material management, etc.
 - \$100,000 limit per county, per fiscal year
 - Collection, transportation, and recycling of covered devices not eligible for reimbursement

Program Overview

- Example Materials Collected:
 - Paint products
 - Garden chemicals
 - Automotive fluids
 - Electronics
 - Household cleaners
 - Pool chemicals

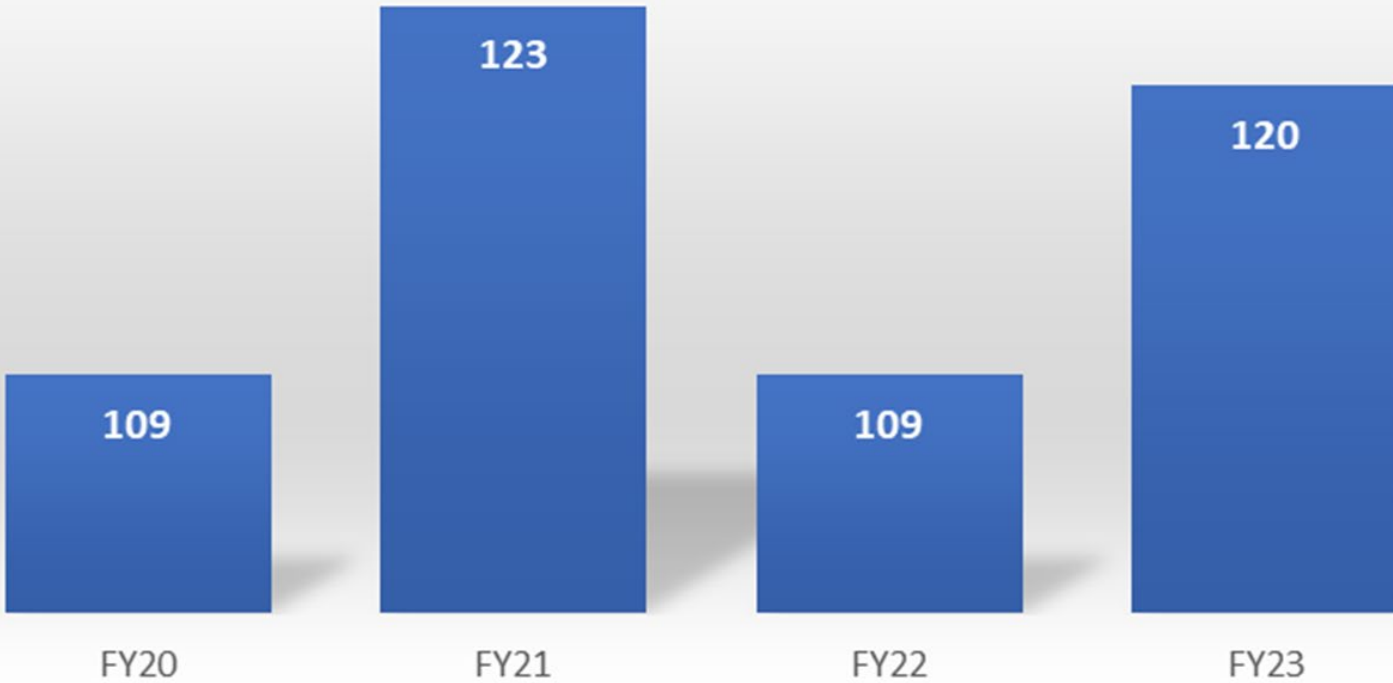
Program Statistics

Number of On-Going/Curbside Programs



Program Statistics

Number of One-Day Events



Program Statistics

Total On-Going/Curbside Materials Collected (Pounds)



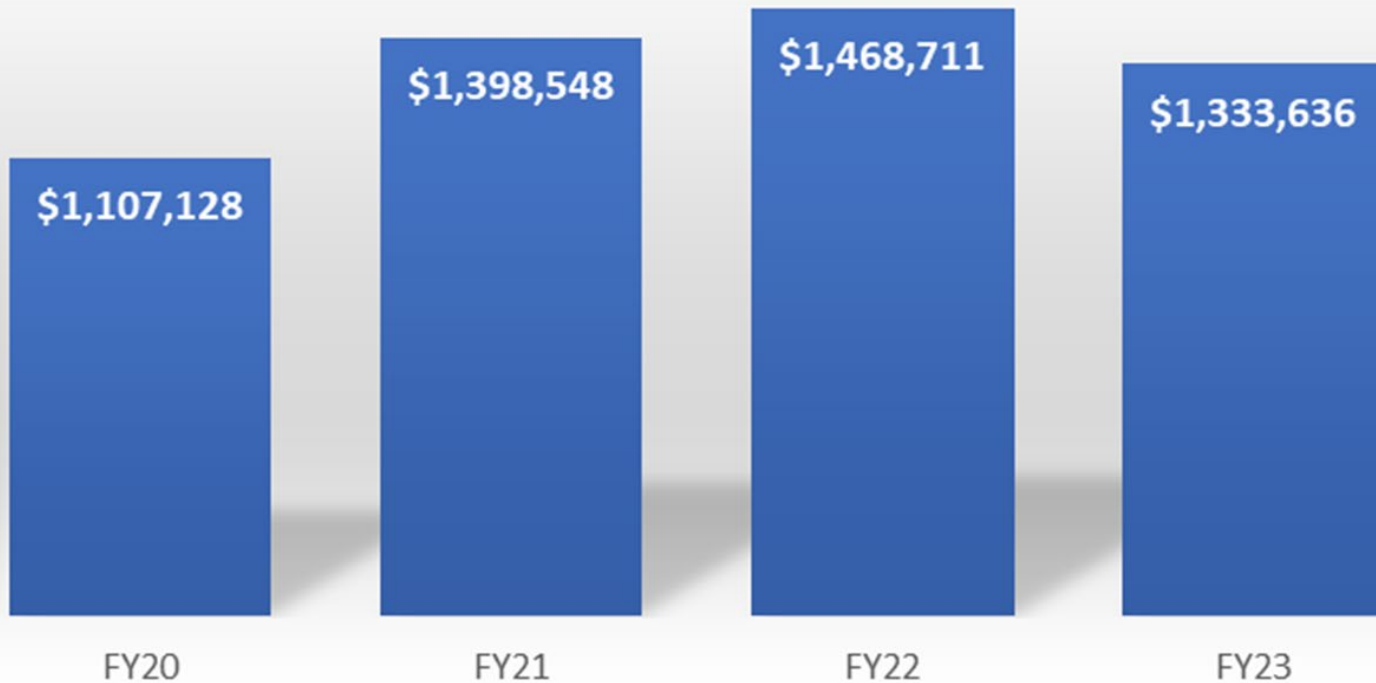
Program Statistics

Total One-Day Materials Collected
(Pounds)



Program Statistics

Total HHW Grants Paid



Program Successes

- Lancaster County SWMA
 - Permanent, on-going collection site
 - Accepts HHW and E-Waste from County residents
 - No fees for acceptable items
 - Regular operating hours
 - Collects approx. 2 million pounds per FY

Program Successes

- WM Curbside, LLC
 - 78 municipal curbside collection programs across 15 counties
 - Convenient for residents
 - Variety of materials accepted, including TVs
 - Collects between 1 and 1.5 million pounds per FY

Program Challenges

- Costs associated with collection operations
- Limited number of collection contractors
- Difficulties with collections in rural areas
 - Pike County

Looking Ahead

- In general, HHW program is strong
- Potential improvements to increase access to collections include:
 - Expansion of curbside collection programs
 - New permanent, on-going collection sites
 - Multi-municipal one-day collection events



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