



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Waste Management

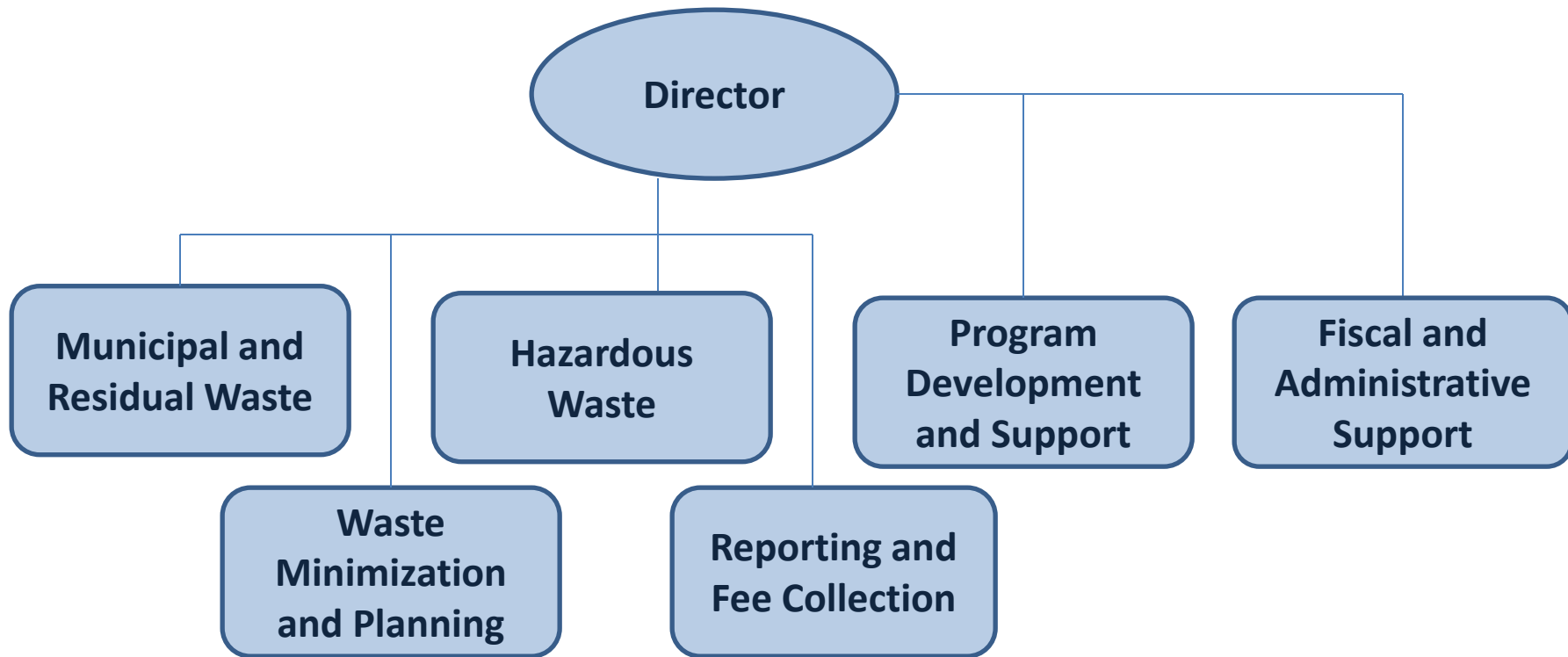
# Bureau of Waste Management Program Overview

Citizens Advisory Council  
September 20, 2022

Tom Wolf, Governor

Ramez Ziadeh, Acting Secretary

# Organizational Chart



# Staffing

- **54 total positions, including:**
  - 12 vacancies
  - 2 contractors
- **Out of 41 positions currently filled:**
  - 3 eligible to retire now
  - 1 eligible to retire in 1 year
  - 2 eligible to retire in 2 years
- **16% of current workforce eligible to retire in 2-years or less**

# Regulated Universe

- **Municipal Waste (MW) Facilities**
  - Landfills
  - Transfer Stations
  - Incinerators/Resource Recovery Facilities
  - Regulated Medical & Chemotherapeutic Waste Processing
- **Residual Waste (RW) Facilities**
  - Landfills
  - Disposal Impoundments
  - Incinerators
  - Other processing/disposal

# Regulated Universe

- **Hazardous Waste (HW)**
  - Treatment/Storage/Disposal Facilities (TSDFs)
  - Landfills
  - Historic Facilities
- **Other**
  - Waste Transporters
  - Beneficial Use of Waste
  - Recycling facilities and municipal recycling programs
  - Waste generators

# Landfill Tipping Fees

- **Recycling Fee**
  - \$2/ton on waste managed at MW landfills and resource recovery facilities
  - Deposited into the Recycling Fund
- **Environmental Stewardship Fee**
  - \$0.25/ton on waste disposed at MW landfills
  - Deposited into the Environmental Stewardship Fund

# Landfill Tipping Fees

- **Disposal Fee for Municipal Waste Landfills**
  - \$4/ton on waste disposed at MW landfills
  - Deposited into the Environmental Stewardship Fund
- **Host Municipality Benefit Fee**
  - \$1/ton on waste managed at MW landfills or other waste processing/disposal facilities
  - Paid to the host municipality

# Waste Disposal Trends (2015-2021)

- **Overall amount being disposed has increased 9.3%**
  - 21.4 M tons in 2015
  - 23.6 M tons in 2021
- **Waste disposed that was generated in PA has increased 8.3%**
  - 14.3 M tons in 2015
  - 15.6 M tons in 2021



# Waste Disposal Trends (2015-2021)

- **MW generated in PA has increased 10.1%**
  - 8.62 million tons in 2015
  - 9.59 million tons in 2021
- **RW generated and disposed in PA has increased 7.1%**
  - 2.99 million tons in 2015
  - 3.22 million tons in 2021

# Waste Disposal Trends (2015-2021)

- **Waste disposed that was generated outside PA has increased 11%**
  - 7.1 million tons in 2015
  - 8.0 million tons in 2021
- **Waste disposed at Resource Recovery Facilities (RRFs) has remained stable**
  - 3.3 M tons in 2015
  - 3.3 M tons in 2021



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# Division of Municipal & Residual Waste

# Municipal & Residual Waste Facilities

- **Oversees the statewide permitting and regulation of municipal and residual waste disposal and waste processing facilities**
  - 52 landfills
  - 6 resource recovery facilities
  - 93 transfer facilities
- **Manages and implements DEP's TENORM disposal protocol**

# Beneficial Use of Waste

- **Permitting program for processing prior to beneficial use and beneficial use of waste**
  - Accomplished through the use of approximately 100 general permits
  - Approximately 460 active authorizations under the program

# Statewide Implementation

- **Develops and interprets waste regulations**
  - Develops new, or amends/interprets existing regulations
  - Liaison with Regional offices and other DEP program areas
  - Promote statewide consistency
  - Update technical guidance documents, policies, procedures, and fact sheets

# Statewide Implementation

- **Evaluates proposals that apply statewide**
  - Coproduct determinations
  - De-wasting requests
  - Form U waiver requests
- **Pennsylvania's Fill Program**
  - Management of Fill Policy
  - General Permit No. WMGR096
  - Policy Addressing Naturally Occurring Vanadium

# Waste Tire Program

- **Cleanup of priority tire piles**
  - Since the program's inception, 20 tire piles have been remediated and DEP has successfully recycled or disposed of over 40 million waste tires.
- **Tire Hauler Authorizations**
  - Over 300 haulers authorized annually, on average



# Current Initiatives

- **Rural Transfer Facility Permit-By-Rule**
- **Evaluate Emerging Contaminants**
  - Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
- **Development of a NEW General Permit**
  - Small scale, urban composting facilities
  - Commercial food waste de-packagers and digesters



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# Division of Waste Minimization & Planning

# Implementation of Recycling Program

- **Municipal Recycling**

- 501 local governments required to recycle
  - + 771 additional communities voluntarily recycle

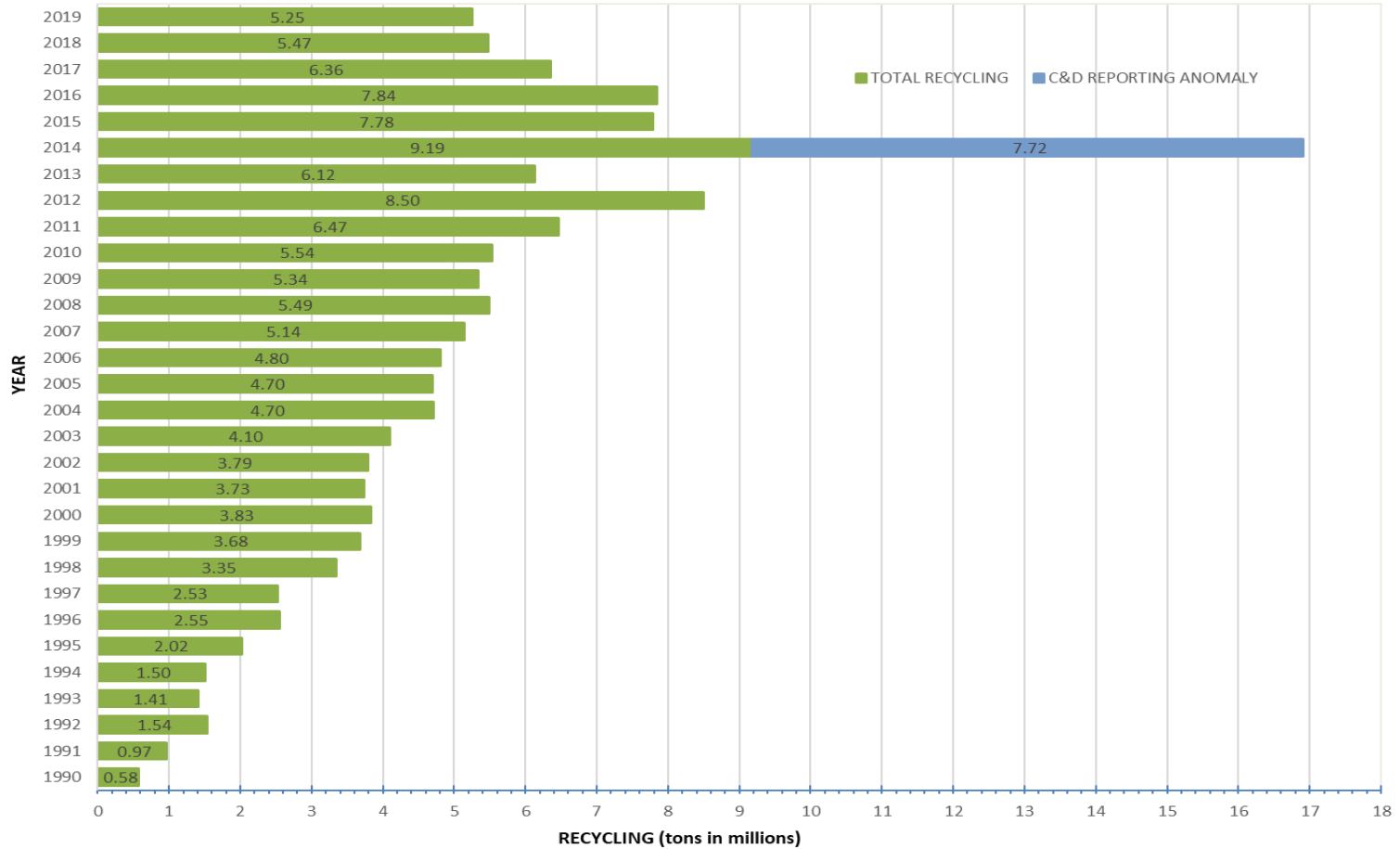
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- 1,143 municipalities currently recycling

- Nearly 12 Million Pennsylvanians actively recycle

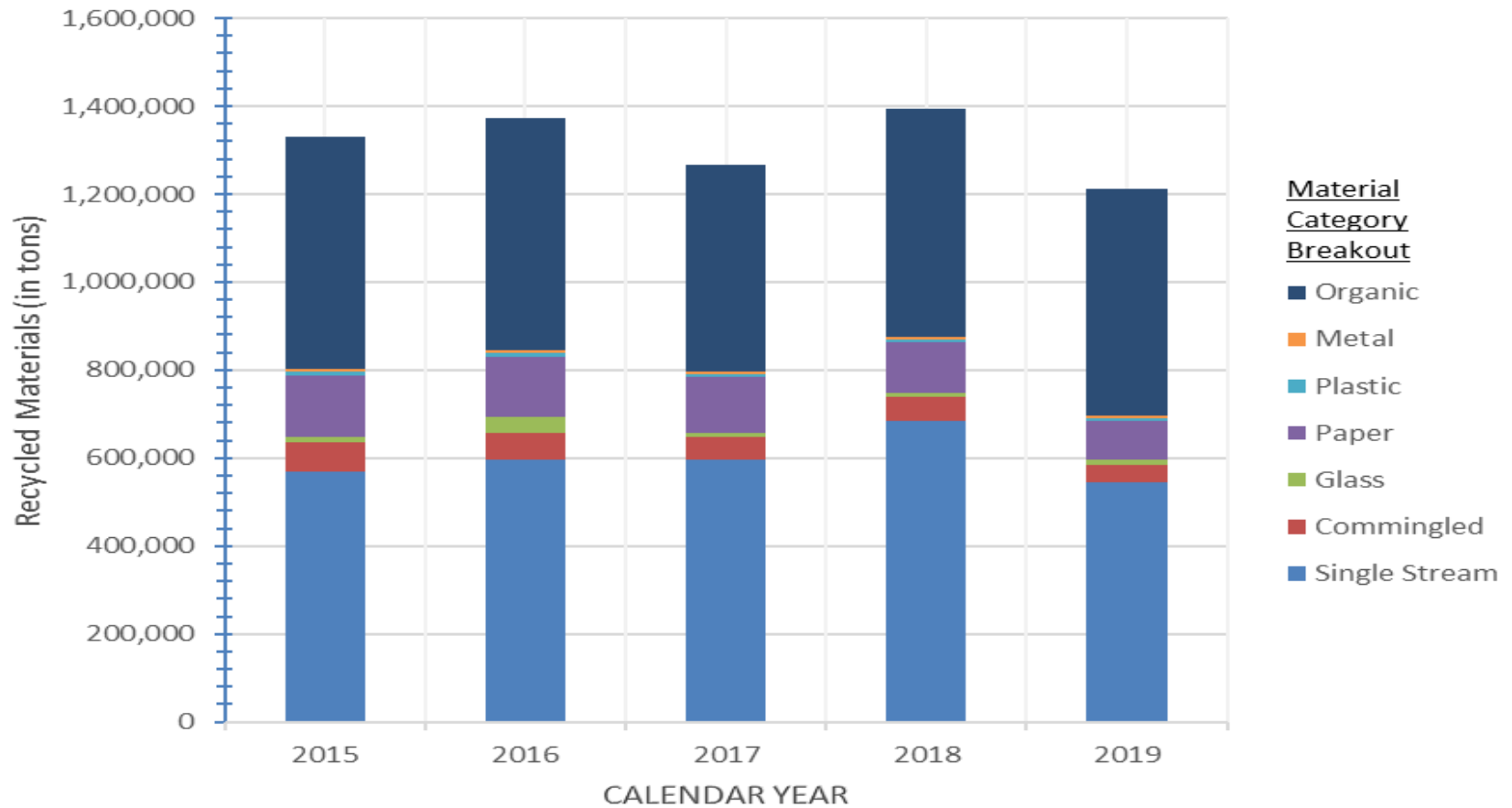
# Recycling Trends

TOTAL RECYCLING IN PENNSYLVANIA (tons)



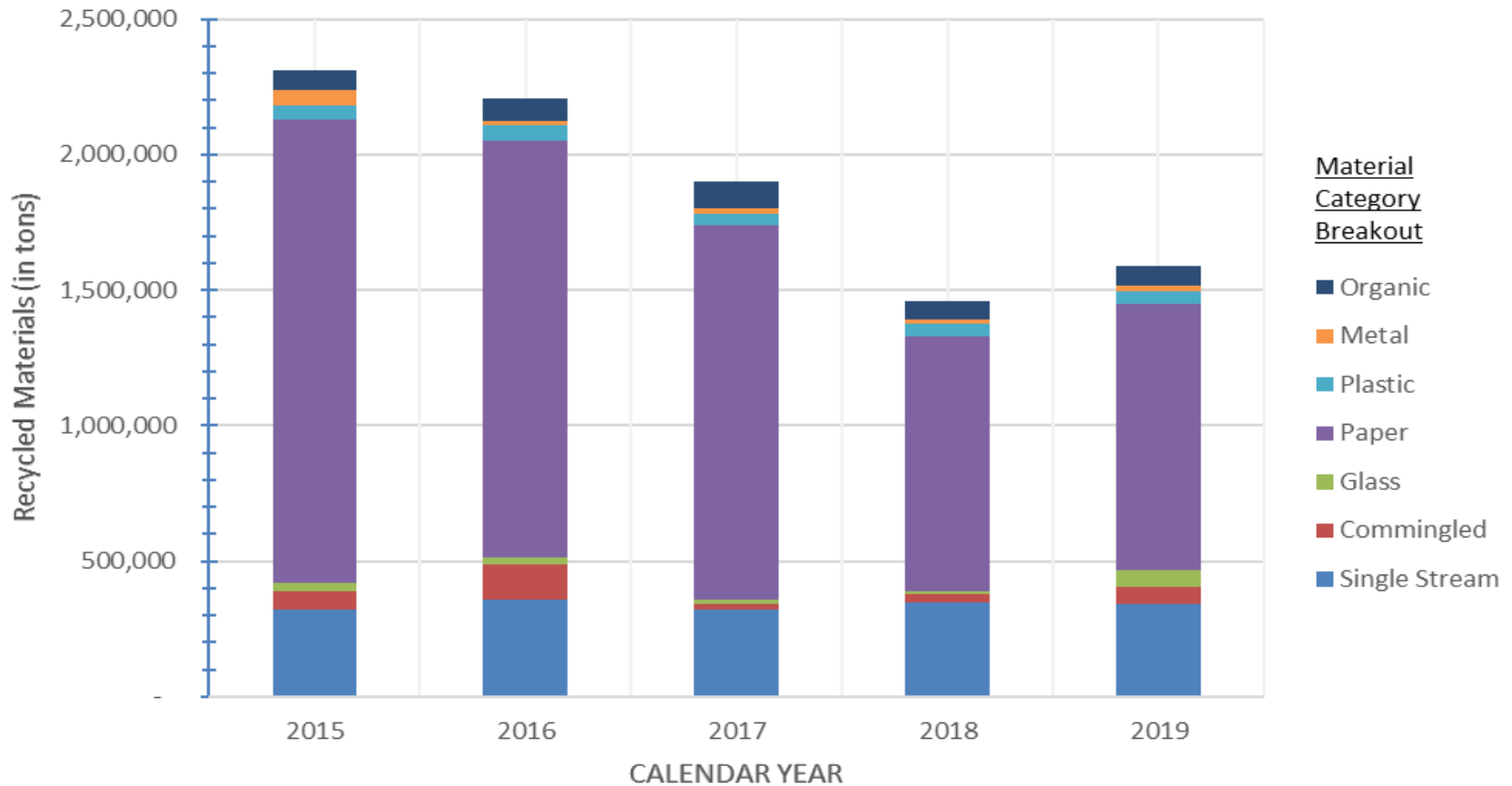
# Recycling Trends

## Total Act 101 Materials Recycled by PA Residents



# Recycling Trends

Total Act 101 Materials Recycled by PA Commercial Entities



# Recycling

- ***The Economic Contributions of Recycling to the Pennsylvania Economy (June 2017)\*:***
  - In 2014, PA collected, processed, and marketed 17.4 million tons of recycled materials.
  - In 2015, PA's recycling marketplace directly employed over 66,000 people and stimulated 110,000 indirect and induced jobs.
  - Also in 2015, PA's recycling marketplace contributed \$22.6 billion to PA's gross state product.

\*Commissioned by PA Recycling Markets Center

# Act 101 Recycling Grants

- **Act 101 Grants**

- Section 901, County Planning Grants
- Section 902, Recycling Program Development and Implementation Grants
- Section 903, County Recycling Coordinator Grants
- Section 904, Recycling Performance Grants
- Section 1102, Host Inspectors Grants
- Section 1110, Independent Evaluation of Permit Grants



# Act 101 Recycling Grants

- **Section 902 Grants**

- \$30.5 Million Offering in FY 21/22 to support local government Municipal Recycling Implementation Grants
- Reimbursement, competitive grant program
- Primarily funds equipment-related costs
- Reduction in available grant funds due to decrease in fees collected

# Act 101 Recycling Grants

- **Section 904 Grants**

- Recycling Performance Grants available to all local governments with recycling programs
- Grant rewards communities based on materials recycled each year
- \$21.5 Million budgeted for FY 21/22
- Applications due December 30, 2022, at 3:00 pm for materials collected in calendar year 2021

# Recycling Fund

- **Recycling Fund Budget**
  - Projected Fund income approximately \$43 Million.
  - Public Education increase for convenience center funding.
  - Allocation of funds to target organics in the waste stream.

# Covered Device Recycling Act (CDRA)

- **“Producer Responsibility Model”**
  - Requires manufacturers of covered electronic devices to recycle an amount of electronic waste material proportionate to the total weight of new devices sold annually in Pennsylvania
- **Manufacturers offering sale of a covered electronic device in Pennsylvania must:**
  - Annual CDRA Registration Form
  - Remit a \$5,000 Registration Fee
  - Recycling Plan
  - Annual Report

# Covered Device Recycling Act (CDRA)

| Program Year | Registered Manufacturers | Pounds Recycled |
|--------------|--------------------------|-----------------|
| 2016         | 55                       |                 |
| 2017         | 62                       | 58.1 M          |
| 2018         | 63                       | 56.5 M          |
| 2019         | 63                       | 56.4 M          |
| 2020         | 66                       | 59.0 M          |
| 2021*        | 65                       | 62.0 M          |

\* Unofficial

# Current Initiatives - CDRA

- **CDRA Modernization**

- White paper

- 2.5-year process

- History, current status and recommendations for changes

- [CDRA WhitePaper SWAC-RFAC 12-16-2021.pdf \(state.pa.us\)](#)

# CDRA White Paper Recommendations

- Shift metrics to a convenience system that uses a return or convenience share.
- Establish permanent collection sites in every county with a minimum operating schedule.
- Require collection sites to take every type of electronic device covered by the statute.

# CDRA White Paper Recommendations

- Clarify that no charge for collection, transportation or recycling can be assessed or passed on to local governments or residents by recyclers, manufacturers and retailers.
- Continue ban on landfill disposal of electronics.
- Funding for collection, transportation and recycling should not come from a tax or fee on consumers or local governments.



# Current Initiatives - Act 101

- **Advance Modernization Efforts of Act 101**
  - White paper
  - 2.5-year process
    - History, current status and recommendations for changes
    - [\(Doc Type\) - FINAL DRAFT ACT 101 REPORT VS 8.5.21 W POLICY EDITS.DOCX - 8/9/2021 6:35:00 PM - Ref # 3997 \(state.pa.us\)](#)

# Act 101 Recommendations

- Divert organic waste from landfills
- Keep recycling funds in the Recycling Fund.
- Support smaller, dual-stream and commingled waste recycling facilities.
- Create R&D grants to invest in emerging technologies.

# Act 101 Recommendations

- Fund regional public Material Recovery Facilities (MRFs)
- Reinstitute a Waste Planning Section
- Oversee the development of a comprehensive education program to improve the quality of materials collected.

# Act 101 Recommendations

- Expand access to recycling through convenience centers.
- Ensure all Pennsylvanians have convenient access to all recycling options.

# Current Initiatives – Food Waste

- **Address Food Waste through Recycling**
  - Food Waste to Renewable Energy Assessment
    - [PowerPoint Presentation \(state.pa.us\)](http://state.pa.us)
  - Waste Composition Study
  - Food Recovery Infrastructure Grants (FRIG)

# Current Initiatives – Food Waste

- **Waste Composition Study**

- Preliminary results:

- Organics (food, yard waste, wood): 40%
- Paper (cardboard, newsprint, office paper, magazines, etc.): ~25%
- Plastics: ~21%
- Inorganic waste (e-waste, drywall, concrete, HHW, etc.): ~7.7%
- Metals: 3.9%
- Glass: 2.7%

# Current Initiatives – Food Waste

## Food Waste Report Goals

- Quantify current levels of generation and diversion
- Inventory facilities currently accepting food waste
- Identify processing capacity at existing facilities
- Estimate the reduction in greenhouse gas (GHG) emissions and biogas generation resulting from the current level of diversion
- Identify best practices for expanding processing capacity and encouraging additional diversion

# Current Initiatives – Food Waste

## Food Waste Report Recommendations

- Reinststitute/Expand the Food Recovery Infrastructure Grant program
- Dedicate DEP resources to address food waste
- Establish a grant fund for food waste-to-energy infrastructure
- Provide technical assistance to largest food waste generators
- Lead by example



# Food Recycling Infrastructure Grant

- Provides non-profit organizations with financial assistance to redistribute food
- Encourages partnerships between non-profit organizations and farms, retailers, wholesalers and cooperatives
- Awarded 145 projects totaling \$9.7 million in 2020
- Projected next grant opening Summer/Fall 2022
- Targeted outreach to non-profit organizations that assist in feeding school children and their families



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# Division of Hazardous Waste

# Statewide Implementation

- **Oversees implementation of PA's Hazardous Waste Program**
  - Facility permit program conducted by Regional Offices
  - Inspections and enforcement activities conducted by Regional Offices
  - PA's Hazardous Waste Program is authorized by U.S. EPA to be implemented in lieu of the federal program

# Statewide Implementation

- **Provides regulatory assistance and interpretation to regulated entities, regional office staff, and the public**
  - Hazardous waste determination issues
  - Hazardous waste recycling exclusions & exemptions
  - Interfaces with the federal hazardous waste program and PA's residual waste program
  - Assures statewide consistency to the maximum extent possible

# Management of Funding

- **Supported by the Hazardous Sites Cleanup Fund**
- **Further supported through a Federal Resource Conservation and Recovery Act (RCRA) Grant from EPA**
  - Runs on 3-yr cycle (new grant cycle begins Oct. 1, 2022)
  - 75/25 match (EPA/DEP)
  - Current funding
  - EPA: \$4,740,000/year
    - DEP: \$1,580,000/year

# Compliance with Federal Obligations

- **Ensures that the obligations and commitments of PA's U.S. EPA hazardous waste agreement are fulfilled**
  - Permit obligations for hazardous waste storage, treatment & disposal facilities (issuances, renewals, modifications)
  - Compliance assistance, monitoring & enforcement
  - Waste minimization and sustainability efforts
  - Corrective action work-sharing efforts in conjunction with EPA Region 3

# Compliance with Federal Obligations

- **Under the RCRA Grant, DEP develops/implements annual Work Plan**
  - Administrative & Program Planning
  - Authorization
  - Corrective Action
  - Data Management
  - Enforcement
  - Permitting
  - Sustainable Materials Management

# Permitting & Technical Support

- Oversight of Pennsylvania's Hazardous Waste Permit Program (TSDFs)
- New commercial hazardous waste permits (Siting Team)
- Solid waste variances and petitions to delist hazardous waste
- Corrective Action Site workshare with EPA



# Permitting & Technical Support

- **Regulatory compliance assistance**
  - Hazardous waste determination issues
  - Hazardous waste exclusions and exemptions
  - Permit requirements
  - Regulatory interpretation
- **Hazardous waste minimization and sustainable materials management**
  - Mercury Thermostat Program
  - Mercury collection via Emergency Response
  - School Chemical Cleanout Campaign (SC3)

# Permitting & Technical Support

- As of 2022, the Department regulates:
  - 2 Boilers or Industrial Furnaces (BIFs)
  - 1 Hazardous Waste Incinerator
  - 3 Subpart X facilities (OB/OD)
  - 32 Land Disposal Units
  - 35 Treatment or Storage facilities

# Compliance & Information Mgmt.

- Maintain HW compliance and enforcement data in eFACTS and its translation to RCRAInfo
- Compliance assistance for regional staff and regulated community
- Notification of RCRA Subtitle C activities (Site Identification Form/8700-12)
- HW and medical waste transporter licensing

# Compliance & Information Mgmt.

- Pennsylvania currently has:
  - 1,251 large quantity generators (LQGs),
  - 3,766 small quantity generators (SQGs),
  - 203 transporters, and
  - 6,799 Other facilities (can include very small quantity generators (VSQGs) and other facilities that have provided a notification of hazardous waste activities)

# Current Initiatives

- RCRA C Grant Management
- Program Authorization
- Siting Team Activity
- Delisting Petitions (rulemaking process)
- Requests for Variance



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# Division of Reporting & Fee Collection

# Processing Quarterly Reports

- **Processes Quarterly Operations and Fee Reports**
  - Hazardous Waste Transportation Reports
    - 200 per quarter
    - \$1,237,400 – HSCA Fund (2021)
  - Hazardous Waste Treatment, Storage and Disposal Reports
    - 15 per quarter
    - \$709,000 – HSCA Fund (2021)

# Processing Quarterly Reports

- **Processes Quarterly Operations and Fee Reports**
  - Municipal Waste Landfill and Resource Recovery Reports
    - 48 per quarter
    - \$42 million/yr. Recycling Fund
    - \$76 million/yr. Environmental Stewardship Fund
    - 23.5 million tons of waste reported in 2021



# Processing Quarterly Reports

- **Processes Residual Waste Biennial Reports**
  - 2,600 reports submitted in 2020
    - 57% submitted electronically
    - 10,700,000 tons reported
- **Processes Hazardous Waste Biennial Reports**
  - 1,052 reports submitted in 2019
    - 256,900 tons generated
    - 221,400 tons shipped
    - 311,600 tons received

# Waste Transportation Safety Program

- Act 90 of 2002, requires vehicles transporting municipal or residual waste to a waste processing or disposal facilities in Pennsylvania to have a Waste Transporter Authorization.
  - Applies to > 17,000 gross registered vehicle weight (GVW) or Trailers > 10,000 GVW
- Annual \$100 authorization fee for each vehicle and \$50 fee for each tractor and trailer

# Waste Transportation Safety Program

- Authorization Program:
  - 41,000 authorized vehicles (2021)
  - \$3.3 million in revenue (2021)
  - Process over 7,000 authorizations per year
  - Avg. Processing Time < 6.3 days
  - Electronic Submission Rates:
    - 81% renewal applications
    - 92% addendum applications
    - 60% new applications



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# Program Development & Support Section

# Assists the Bureau

- Legislation tracking
- Right-To-Know Liaison
- IT Liaison
  - Application development/implementation
  - Web postings
  - Website development (internal/external)
- Solicit/compile information for Executive Staff

# Special Projects

- Regulatory revisions
- Updates to documents
  - Technical Guidance
  - Policies
  - Fact Sheets
  - Other publications
- Promote program consistency

# Keep Pennsylvania Beautiful (KPB)

- Administer grant funding
- Pick Up Pennsylvania (Spring/Fall)
- Adoption Programs
- Illegal Dump Surveys – Follow-up
- Collaboration on litter/illegal dumping research

# Statewide Litter Initiatives

- Priority of the Governor's Office
- Partnership between DEP/PennDOT/KPB
- Litter Study: results released January 2020
- Statewide Litter Action Plan: released November 2021
- Litter Summit to be held November 2022 in Lancaster
- [www.dep.pa.gov](http://www.dep.pa.gov), keyword "Litter"



# Program Development & Support

- **Host Municipal Inspector Program**
  - Provide certification training
  - Administer reimbursement grant program
- **SWAC/RFAC Liaison**
  - Coordinate and organize meetings
  - Develop meeting agendas and materials
  - Approve travel-related expenses
  - Administration of Bylaws

# Contact Information

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