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
• **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
• 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

- 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 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
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
• 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
Division of Waste Minimization & Planning
• **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 Act 101 Materials Recycled by PA Commercial Entities

Material Category Breakout:
- Organic
- Metal
- Plastic
- Paper
- Glass
- Commingled
- Single Stream

CALENDAR YEAR

Recycled Materials (in tons)

- 2015
- 2016
- 2017
- 2018
- 2019

2015: 2,000,000
2016: 2,000,000
2017: 1,500,000
2018: 1,000,000
2019: 1,000,000

Pennsylvania Department of Environmental Protection
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 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
• **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
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
<table>
<thead>
<tr>
<th>Program Year</th>
<th>Registered Manufacturers</th>
<th>Pounds Recycled</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>55</td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>2018</td>
<td>63</td>
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<td>59.0 M</td>
</tr>
<tr>
<td>2021*</td>
<td>65</td>
<td>62.0 M</td>
</tr>
</tbody>
</table>

* 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.
• 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)](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%
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

• Reinstitute/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
Division of Hazardous Waste
• 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
• 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
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
• Under the RCRA Grant, DEP develops/implements annual Work Plan
  – Administrative & Program Planning
  – Authorization
  – Corrective Action
  – Data Management
  – Enforcement
  – Permitting
  – Sustainable Materials Management
• 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)
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
• 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
• 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
Division of Reporting & Fee Collection
• 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)
• 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
• 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
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
• 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
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
• 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
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