



Solid Waste & Recycling Request For Proposals

City Council Briefing
July 10, 2026



City of
Philadelphia



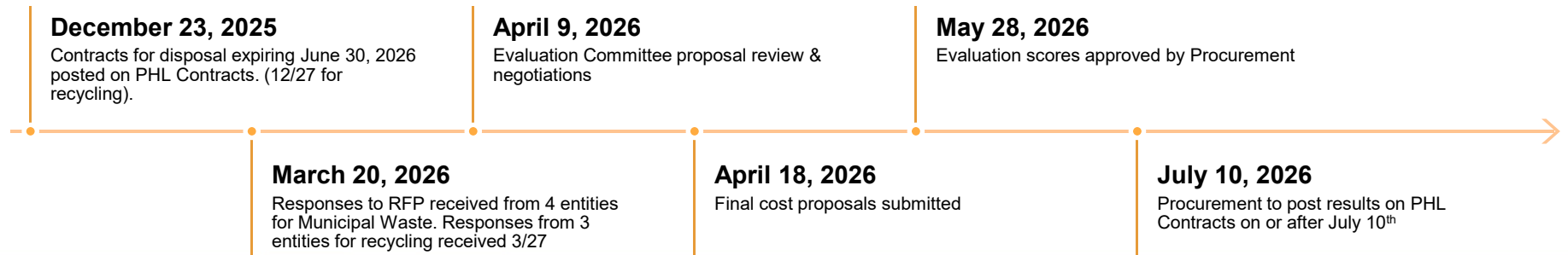
Background

- ❑ City of Philadelphia Municipal Solid Waste Contracts expired June 30, 2026.
 - ❑ The contract was a four-year contract with three, one-year options for renewal.
 - ❑ Contractor proposals with a base term greater than one year must be done by an ordinance with the approval of Philadelphia City Council.
 - ❑ New contracts are bid through the request for proposals process.
 - ❑ Contract extensions for a period of six months were executed during the negotiation process until new contracts are exacted.
 - ❑ State Act 101 governing waste disposal contracts require a fair and competitive process.
 - ❑ The Philadelphia Sanitation Department is primarily responsible for the RFP process.
- 

RFP Process

- ❑ The negotiation team held meetings over several weeks to discuss each proposal based on the evaluation criteria.
- ❑ The goal of the negotiation process was to provide the City of Philadelphia with a contract that was fiscally responsible and environmentally sustainable.
- ❑ Vendors were asked to submit their best and final offer at the final meeting.
- ❑ The negotiation team completed negotiations and has submitted the results to the procurement department for posting and vendor notifications.

Timeline:



Proposal rated on these factors:

- ☐ Costs
- ☐ Capacity
- ☐ Operations Analysis
- ☐ Environmental Impacts*

Environmental Assessments

- Landfill and Waste to Energy Comparisons (CEC)
- Evaluation of emissions data certified by PADEP (CEC)
- Calculation of collections CO2 emissions (MSW)
- Calculate disposal options emissions impacts utilizing USEPA WARM Model

Evaluation of Cost Proposals and Transportation / Operational Impacts

- Build scenarios / alternative disposal systems based on disposal rates and transportation costs analysis
- 5 scenarios selected for additional analysis
- Process repeated during price negotiation stage

Review Committee rated proposals based on the qualitative factors including the environmental impact assessment integrated with cost and transportation analysis of individual disposal system scenarios.

RFP Review

Evaluation Committee Representation:



PHILADELPHIA
DEPARTMENT OF
SANITATION



Department of
Public Health

Law & Procurement
Departments (Advisory Only)

Responses to Proposals

➤ **Four responses were received for Solid Waste**

Options	Solid Waste Opportunities
One	Transfer and Disposal of Municipal Waste
Two	Direct Disposal from City's Transfer Station (NWTs)
Three	Innovative Disposal Options
Four	Other Waste Streams

➤ **Three responses were received for Recycling Opportunities: transfer / processing and marketing of curbside recyclables OR accept recyclables from City's Transfer Station**





Best Value RFP

Bids evaluated based on a combination of price and qualitative factors.

Solid Waste Criteria	Weight		Recycling Criteria	Weight
Cost Proposal	30%		Cost Proposal	30%
Transportation Impact Assessment	20%		Transportation Impact Assessment	20%
Management Plan	5%		Management Plan	5%
Operations	10%		Operations	20%
Education and Litter Support	10%		Education and Litter Support	10%
Operating Experience	5%		Operating Experience	5%
Local Impact (City of Philadelphia)	10%		Local Impact (City of Philadelphia)	10%
Small and Local Business Entity Bonus	5%		Small and Local Business Entity Bonus	5%
Environmental Impact Assessment	10%			





Health Impacts of Waste

- Efficient waste management is essential for public health: decreases harborage of rats, reduces environments for mosquito breeding, and prevents the spread of waterborne diseases.
- Sanitation Department's Environmental Assessment has found that Landfilling and Waste to Energy have significant health and environmental impacts, with negative effects historically concentrated in low income and communities of color.
- Given the complexity of the waste management landscape in Southeastern PA and logistical constraints using a combination of waste management methods and facilities to meet the City's needs is a responsible approach.
- PDPH can help explore alternative processing and disposal approaches with the goal of moving away from reliance on traditional disposal methods and toward new technological approaches, including: Sanitation Department's pilots, PGW RFI, Office of Clean and Green's organics diversion strategy, and the Office of Sustainability's focus on waste reduction.



Sustainability in Waste Management

- Waste management is a complex system and the current volume requires an **all-of-the above approach**, including landfilling and incineration.
- Outside of the RFP process, literature review and conversations with experts confirm there is **not a clear consensus** of relative health and environmental impacts between incineration and landfilling.
- **Universally agreed that waste reduction is the absolute best solution** to minimize disposal needs and improve environmental and health outcomes > also reflected in responses to the City's RFI.
- OOS has committed to the Mayor, Office of Clean & Green Initiatives, and Sanitation to find resources to **supplement education and programmatic work** already being done > address waste generation at the source and create more opportunities for the circular economy.
- This **RFP process yielded a new-to-Philadelphia waste management alternative** that would use automated sortation to recover recyclables and organics > circular opportunity (eg, soil amendment, biogas, cement).





Alternatives for Waste Disposal

1. PGW is exploring alternative waste disposal options to:
 - A. Reduce waste volumes sent to traditional disposal options
 - B. Reduce city-wide greenhouse gas emissions
 - C. Reduce operational expenses
 - D. Redirect organic waste to productive uses, generating value for City taxpayers and PGW ratepayers
2. Renewable Natural Gas (RNG) is one of several opportunities in consideration, which entails:
 - A. Capturing biogases (mostly methane) currently emitted from traditional waste disposal options
 - B. Upgrading biogases to RNG, inter-changeable with and displacing existing traditional natural gas use
3. PGW is partnering with other City agencies in evaluating options to inform recommendations
 - A. Performing an RFI process to identify options and their considerations
 - B. Visiting existing similar diversion facilities to understand their development, operations, and lessons learned



Environmental Impact Analysis

Scope of Work:

- Prepared Sustainability Questions (used for Addendum 3)
- Reviewed WM & ReWorld Addendum 3 Responses
- Developed 12-Part Sustainability Comparison Tool
- Compared ReWorld PADEP Certified Air Emissions Data to Permit Limits



Sustainability Questions

- Reviewed original RFP
- Reviewed Philadelphia Climate Action Playbook
- Performed sustainability gap analysis of RFP
- Proposed topics for consideration (Addendum 3 – 40 questions incorporated):
 - Life Cycle Analysis (10 topics, 20 questions)
 - Environmental Justice (7 topics, 14 questions)
 - GHG Emission (2 questions)
 - Metric Disclosure (2 questions)
 - Climate Resilience (2 questions)



Addendum 3 Responses

- Responses reviewed for WM (Fairless), ReWorld (DE Valley), & Republic (Conestoga)
- Independently scored: 0 (none); 1 (poor); 3 (average); 5 (excellent)
- Tallies provided:
 - Counts of scores by company (e.g., number of excellent responses)
 - Response scores by Topical Cluster
 - Health, EJ, Community
 - Long-Term System Risk,
 - Liability and Governance
 - Climate, Energy, and Resources



12-Part Sustainability Comparison

- Side-by-side comparison of 2 technologies:
 - Landfilling with methane gas recovery and energy recovery, and
 - Waste-to-Energy Incineration
- 12 Sustainability Criteria scored as
 - -1: worse than average
 - 0: average
 - +1: better than average
- With equal weighting, combined scores show the sustainability of both is worse than average (Landfill -5 & Waste-to-Energy -4)



ReWorld Reported Air Emissions

- 5 years PADEP air emissions reports for Plymouth and DE Valley ('21-'25) comparing annual emissions to permit limits for required monitoring parameters
- **Plymouth Facility**
 - ✓ Criteria pollutants (Nitric Oxide, Lead, Volatile Organic Compounds)
 - ✓ Hazardous Air Pollutants (Arsenic, Cadmium, Chromium, Mercury, Nickel)
- **DeVal Facility**
 - ✓ Criteria pollutants (Nitric Oxide, Carbon Monoxide, Lead, Sulfur Oxides, Volatile Organic Compounds , Condensable Particulate Matter) *Note additional PADEP monitoring of PM 2.5*
 - ✓ Hazardous Air Pollutants (Arsenic, Be, Cadmium, Chromium, Hydrogen Chloride, Mercury, Nickel)
- **Results**
 - Plymouth: All below permit limits established by PADEP except Nitric Oxide in '21 and '22 (based on '24 permit)
 - DeVal: All below permit limits established by PADEP



Federal WTE Regulations

- ❑ Primary **FEDERAL STATUTES** regulating Large Municipal Waste Combustors (LMWC):
 - ✓ **Clean Air Act § 129 – Solid Waste Combustion (42 U.S.C. § 7429)**, directing US EPA to set emission standards
 - Under **§ 111**, nine air pollutants are regulated (particulate matter, carbon monoxide, dioxins/furans, sulfur dioxide, nitrogen oxides, hydrogen chloride, lead, mercury, and cadmium), thus reducing emissions of harmful air pollutants
 - ✓ **Resource Conservation and Recovery Act (RCRA) (42 U.S.C. §§ 6901 et seq.)** – Governs solid waste disposal, controls incoming waste handling and combustion ash disposal.
- ❑ **RULES:**
 - ✓ **40 CFR Part 60, Subpart Eb** – New/modified/reconstructed LMWCs: New Source Performance Standards (NSPS).
 - ✓ **40 CFR Part 60, Subpart Cb** – Existing LMWCs: Emission Guidelines, implemented through state plans.

State WTE Regulations

- ❑ **PENNSYLVANIA STATUTES** governing Waste To Energy (WTE), regardless of unit size:
 - ✓ **Air Pollution Control Act – 35 P.S. §§4001–4015.** State authority for air permitting and emission limits on WTE to protect air resources for the “***better protection of the health, general welfare, and property***” and to implement the federal Clean Air Act in PA.
 - ✓ **Solid Waste Management Act – Act 97 of 1980 (35 P.S. §§6018.101 et seq.).** Requires permits for WTE facilities; directs protection of public health and the environment.
 - ✓ **Municipal Waste Planning, Recycling & Waste Reduction Act – Act 101 of 1988 (53 P.S. §§4000.101 et seq.).** WTE operates within this County planning framework.
- ❑ **RULES (25 PA Code):**
 - ✓ **Chapter 283** – Operating requirements, air-resources protection, radiation & groundwater monitoring, and siting limits. Requirements are in addition to those in Chapter 271.
 - ✓ **Chapter 271** – permitting & environmental-assessment baseline.
 - ✓ **Chapter 127** – Air plan approvals, must use best available technology, Title V permits.

Environmental Impacts

- ❑ The configuration of the City's waste disposal system drives a variety of environmental impacts:
 - ❑ GHG emissions
 - ❑ Resource recycling
 - ❑ Pedestrian and motorist safety
 - ❑ Pavement impacts
- ❑ It is possible to accurately measure these impacts based on identifiable system parameters



City Collection System

Transportation from Local transfer stations



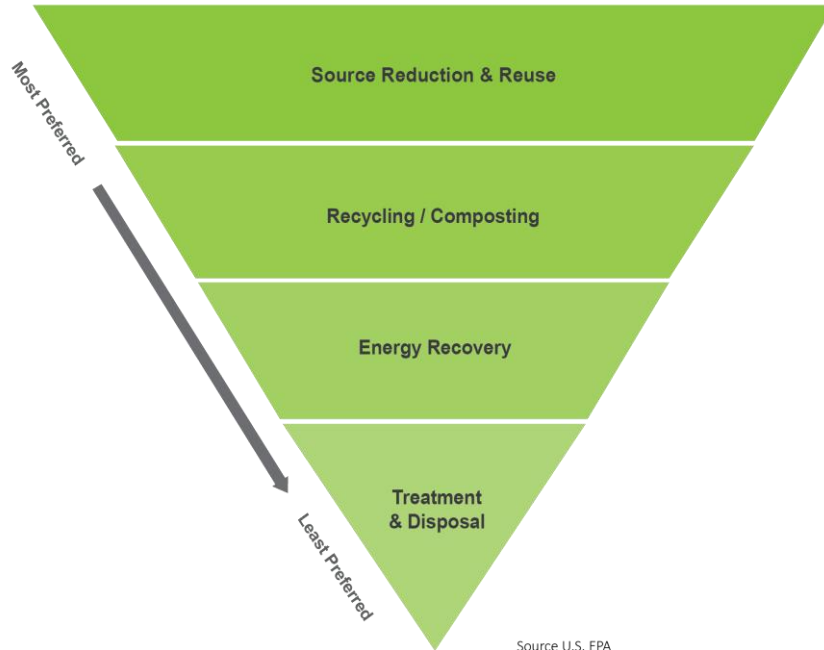
Final Disposition

Final Disposition

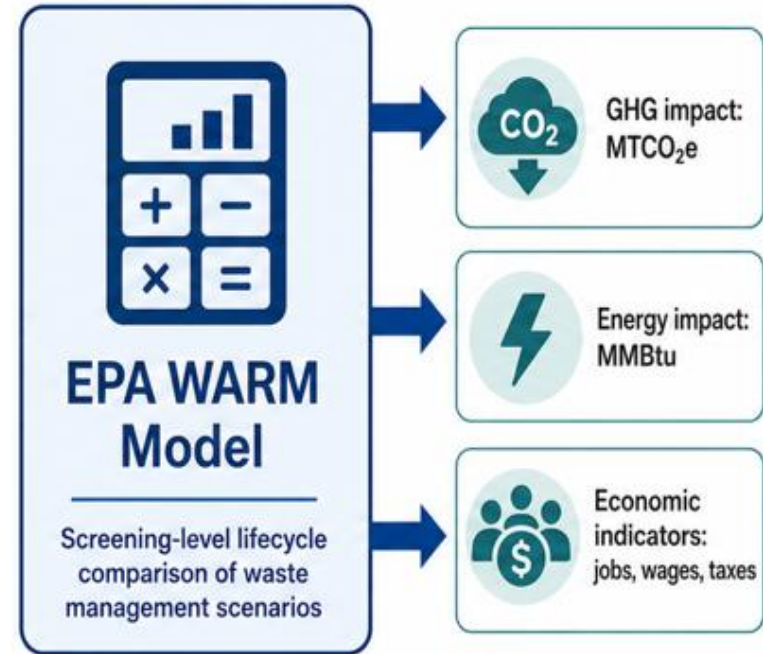


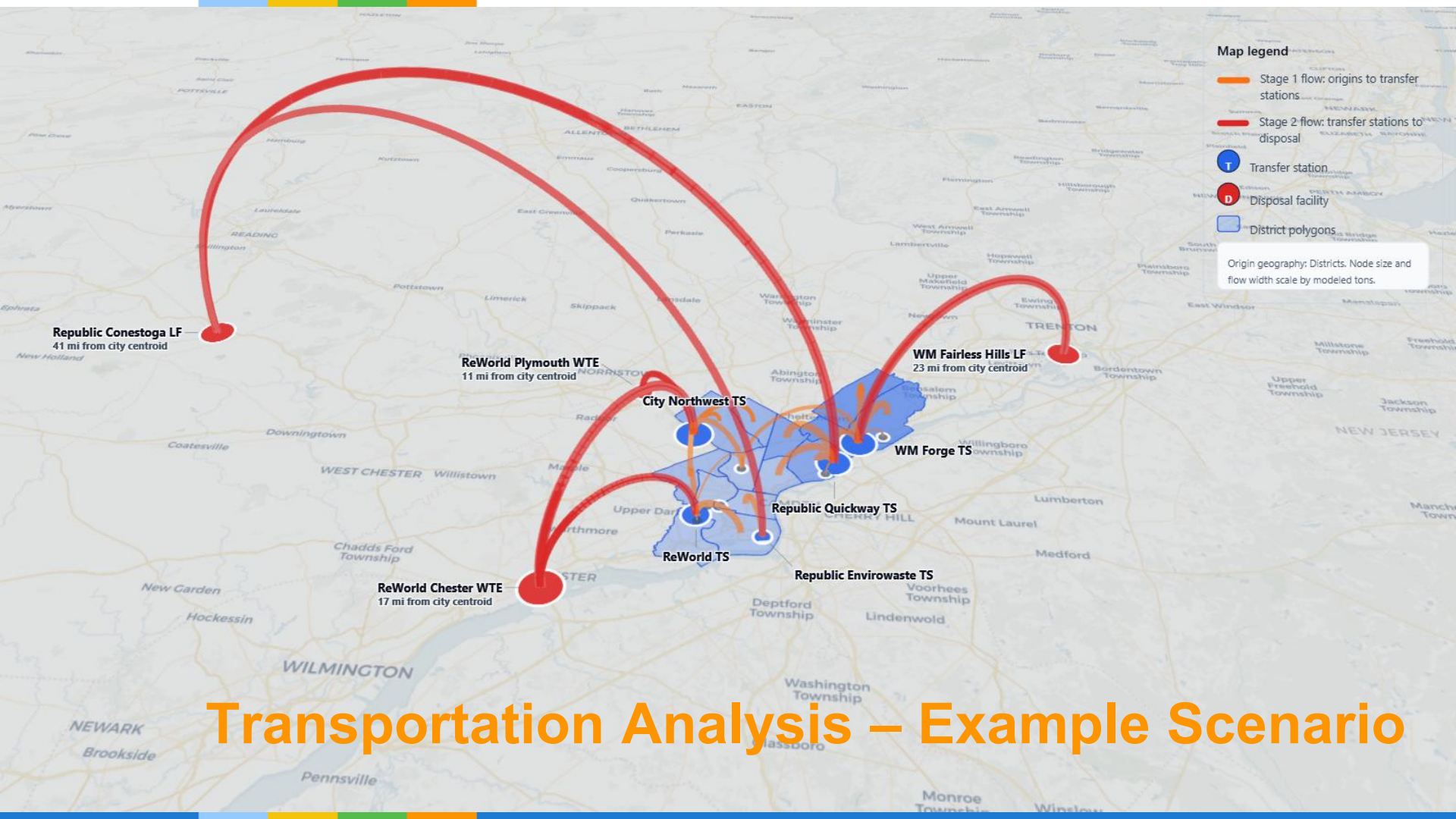
Analytical Tools

US EPA Waste Management Hierarchy



US EPA WARM (Waste Reduction Model)







Alternative Disposal Methods

- ❑ AMP Approach – Combines AI processing technology to separate curbside recyclable materials in mixed waste and separation of organics for processing using pyrolysis technology to generate biochar product that can be used for various construction products such as a low carbon cement mix.
 - ✓ Pyrolysis – chemical decomposition of organic materials in extreme heat without oxygen present, a chemical reaction that does not use an incineration process
 - ✓ Biochar – a charcoal-like substance similar to wood chips
 - ❑ WM Approach Process mix waste or source separated organics to process organics into a liquid bioslurry that can be used in a digester to generate methane that can be cleaned as a pipeline ready product for sale
 - ✓ Bioslurry - a nutrient rich engineered product in a semi-liquid form used to produce organic fertilizer or used in an anaerobic digester to increase methane production
 - ✓ Digester – an airtight tank used to breakdown organic waste that generates methane that can be used to produce energy products and digestate (biosolds) which can be used to produce fertilizer products
- 



Next Steps

- ☐ Procurement posts Intent to Award Contract on PHL Contracts for Alternative 1 and 2 transfer and disposal contracts and Recycling Processing and Marketing Contracts with a base term of 4 years
 - ☐ 10-day posting period to allow for response from vendors before ordinances are submitted to City Council
 - ☐ Scheduling of individual briefings with Councilmembers to discuss the awards
 - ☐ Contracts drafted by the Law Department.
 - ☐ Goal = New contracts in place by Fall 2026.
 - ☐ Explore partnerships and pilot innovative waste disposal processes to manage organics
- 



Closing Remarks Q&A



City of
Philadelphia