

Department of Public Works Quarterly Oversight Hearing



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PARTMENT OF PUBLIC WORKS BALTIMORE CITY DEPARTMENT OF PUBLIC



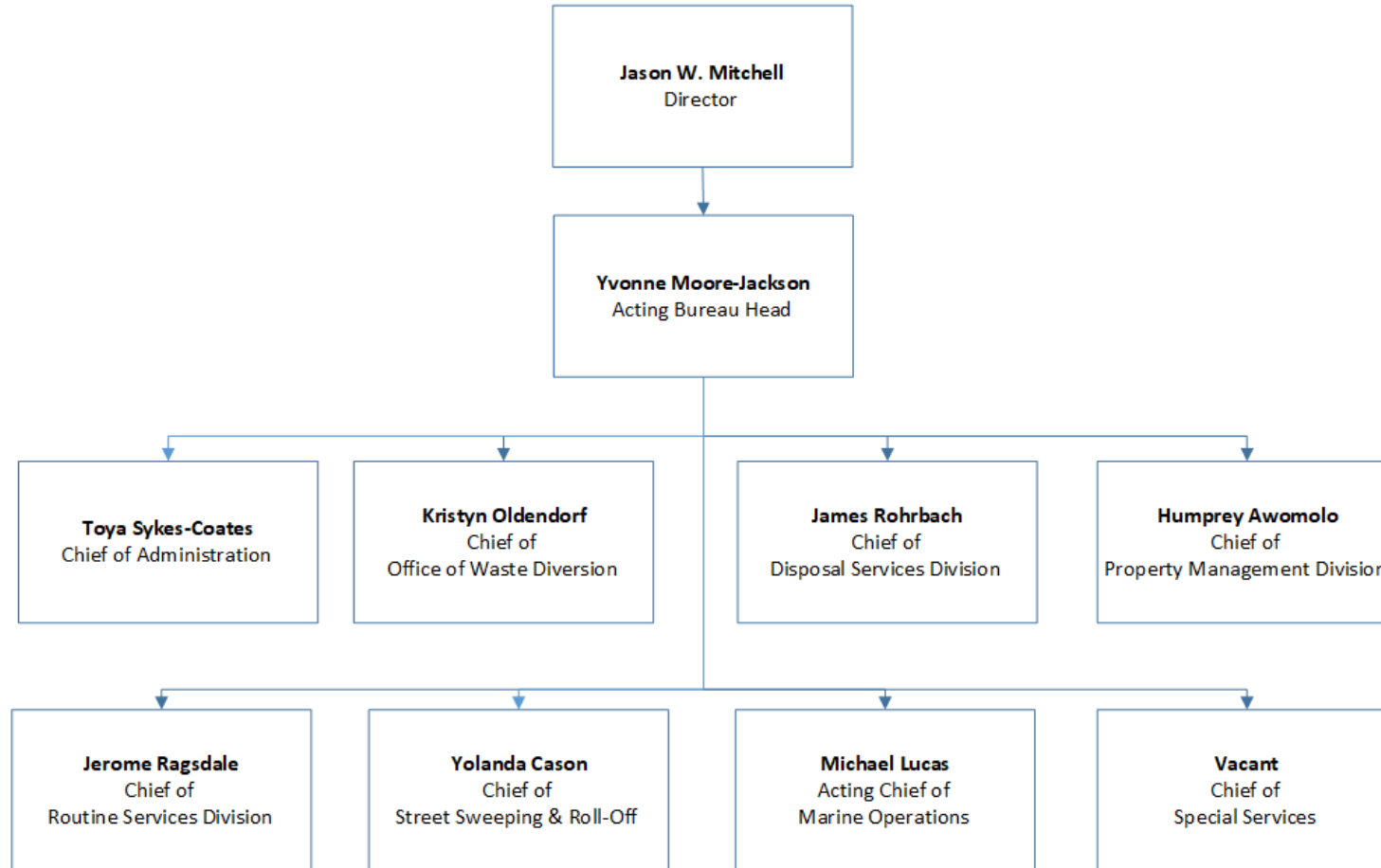
Presentation Outline

- 1. Bureau of Solid Waste Overview**
 - a. Organization Chart
 - b. Bureau responsibilities
 - c. Solid Waste Facilities Map
 - d. FY 21 Overview
- 2. Budget Overview**
- 3. Operations**
 - a. Solid Waste Divisions and their responsibilities
 - b. Staffing
 - c. Internal Performance Management Metrics
- 4. Fleet and Facilities**
- 5. Community Engagement Strategy**
- 6. Waste Diversion Efforts – Less Waste, Better Baltimore**



Bureau of Solid Waste Staff

ORGANIZATION CHART AS OF MARCH 2022



Bureau Overview

The Bureau of Solid Waste is required to provide the following services per the City Charter and City Code:

City Charter, §35. Department of Public Works: Street cleaning.

The Department shall be responsible for cleaning the streets and for the collection, disposal, and recycling of garbage, ashes, refuse, trash, and other waste matter, except as otherwise provided by law.

City Code, § 1-4. Public Works to provide sanitation services.

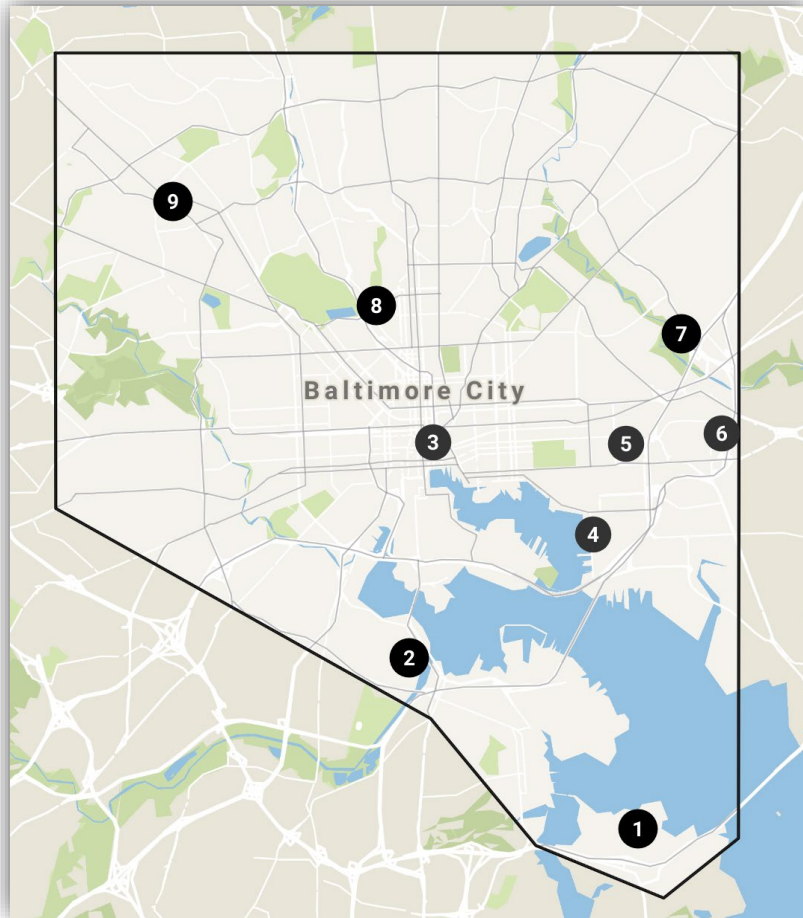
(a) In general. The Director of Public Works has charge of the following services, as authorized or required to be done by the City:

- (1) the cleaning of the public streets, lanes, and alleys; and
- (2) the collection and removal of mixed refuse and recyclable materials.



Bureau Overview

Bureau of Solid Waste Facilities and Offices



1. Quarantine Road Landfill

6100 Quarantine Road, Baltimore, MD
(410) 396-3772

2. Western Sanitation Yard

701 Reedbird Avenue, Baltimore, MD
(410) 396-3367

3. Administration & Waste Diversion

200 N. Holliday Street, Baltimore, MD
Administration: (410) 396-5134
Waste Diversion: (410) 396-4511

4. Inner Harbor/Downtown Operations

3311 Eastbourne Avenue, Baltimore, MD
(410) 396-5671

5. Property Management Division

111-231 Kresson Street, Baltimore, MD
(410) 396-1023

6. Special Services/Mechanical Street Sweeping

111 Kane Street, Baltimore, MD
(410) 396-1300

7. Eastern Sanitation Yard

6101 Bowleys Lane, Baltimore, MD
(410) 396-9950

8. Sisson Street Drop-Off Center

2840 Sisson Street, Baltimore, MD
(410) 396-7250

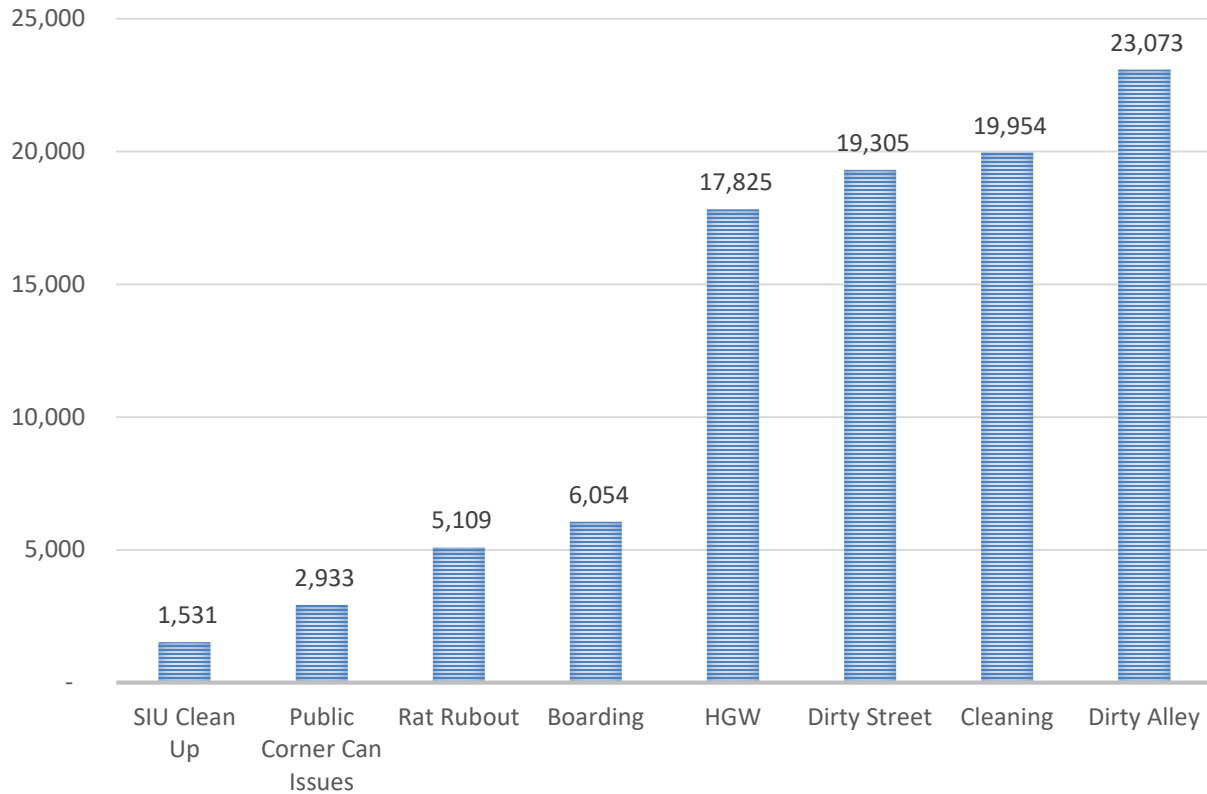
9. Northwest Transfer Station

5030 Reisterstown Road, Baltimore, MD
(410) 396-2706



Bureau Overview

SERVICE REQUESTS CLOSED IN FY 21



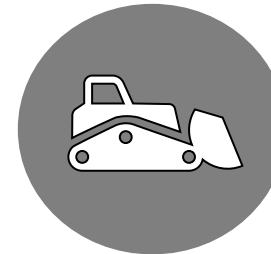
Tonnage Collected in FY 21



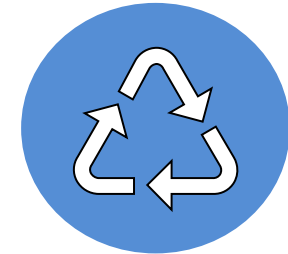
158,547 Tons of Residential Trash



15,800 Tons of Residential Recycling



Approx. 266,262 Tons Landfilled



5 out of 5 Maximum Source Reduction Credit Received from MDE



Bureau Overview

Accomplishments

- Staffing – Created full time positions for temporary Seasonal Maintenance Aides
- Routing – Installed telematics on loadpackers and digitized trash collection routes for operational efficiency
- Recycling Carts – Completed citywide recycling cart roll-out and distribution
- Food Waste – Utilized grant funding from the Natural Resources Defense Council (NRDC) to host compost workshops and to implement a Food Scrap Drop-Off Pilot Program at citizen drop-off centers
- CIP Projects – Making progress on securing funding for CIP needs

Bureau-wide Challenges

- Vacancies
- Employees on A-Time and Light Duty
- Resources needed in the future to maintain services that citizens expect from us



Budget Overview

Service	Total FY 21 Budget	FY 22 Base Budget	FY 22 One-Time Funding	Total FY 22 Budget	Additional Budget Needs
660 – Admin	\$2.3M	\$2.3M	\$0	\$2.3M	\$0M
661 - Public Right of Way	\$25.9M	\$26.7M	\$0	\$26.7M	\$0M
662 - Vacant/Abandoned Property Cleaning and Boarding	\$13.2M	\$12.9M	\$0	\$12.9M	\$1.1M
663 - Waste Removal and Recycling	\$32.7M	\$38.9M	\$0.4M*	\$39.3M	\$0.9M
664 - Waste Re-Use and Disposal	\$25.6M	\$26.8M	\$4.0M^	\$30.8M	\$1.4M
Total	\$99.7M	\$107.6M	\$4.4M	\$111.9M	\$3.4M

* \$400,000 for collection contracts from CARES Act funding

^ \$4 million for recycling bins from the Stormwater Fund



Staffing Overview

Filled and Vacant Positions by Job Type

	<u>Supervisors</u>	<u>Office Staff</u>	<u>CDLs</u>	<u>Non-CDLs</u>	<u>Total</u>
Filled Positions	42	44	166	373	624
Vacant Positions*	11	3	31	36	80
FY 22 Budgeted Positions	53	47	197	409	704

Filled and Vacant Positions by Division

	<u>Service 660 Administration</u>	<u>Service 663 Routine</u>	<u>Service 661 Special</u>	<u>Service 662 Property</u>	<u>Service 661 Marine</u>	<u>Service 661 MSS</u>	<u>Service 664 Disposal</u>
Filled Positions	10	265	125	85	52	31	49
Vacant Positions*	2	31	13	22	6	5	1
FY 22 Budgeted Positions	12	296	138	107	58	36	50

* Vacancy rate is based on operational data from February 11, 2022



Routine Services



Responsibilities

- Trash and recycling collection
- Leaf collection from October to January
- Christmas tree collection from December to January

Accomplishments

- Provided curbside trash collection during the entire duration of COVID-19.
- Investigated and closed missed collection service requests even with crew shortages.
- Digitized trash collection routes

Challenges

- Recruitment for Solid Waste Drivers has been difficult since there is a two-year CDL driving experience requirement. Many applicants are unqualified for the position as a result.
- Around 22 Solid Waste Workers are out due to A-Time and Light Duty.

Routine Services

Total Crews Needed for Weekly Collection

Recycling: 22 crews (22 CDL and 44 non-CDL)

Trash: 45 crews (45 CDL and 90 non-CDL)

Minimum Required: 67 CDL and 134 non-CDL

Minimum with 20% contingency: 81 CDL and 161 non-CDL

Current Operational Staffing Levels

FY 22 Budget Positions	<u>CDLs</u>	<u>Non-CDLs</u>
Minimum required including 20% Staffing Contingency	81	161
FY 22 Budgeted Employees	-76	-190
Additional Employees Needed	5	0
Funding Short for FTE Positions	\$0.9M	\$0

	<u>CDLs</u>	<u>Non-CDLs</u>
FY 22 Budgeted Employees	76	190
Leave or Unavailable**	-4	-25
Vacant Positions**	-5	-20
Total Employees Available	67	145
Staffing Shortage with Contingency (Min required including 20% staffing contingency– Employees Available)	-14	-16

* Availability rate is reflective of February 15, 2022 operational data

** Vacancy rate is reflective of February 11, 2022 operational data



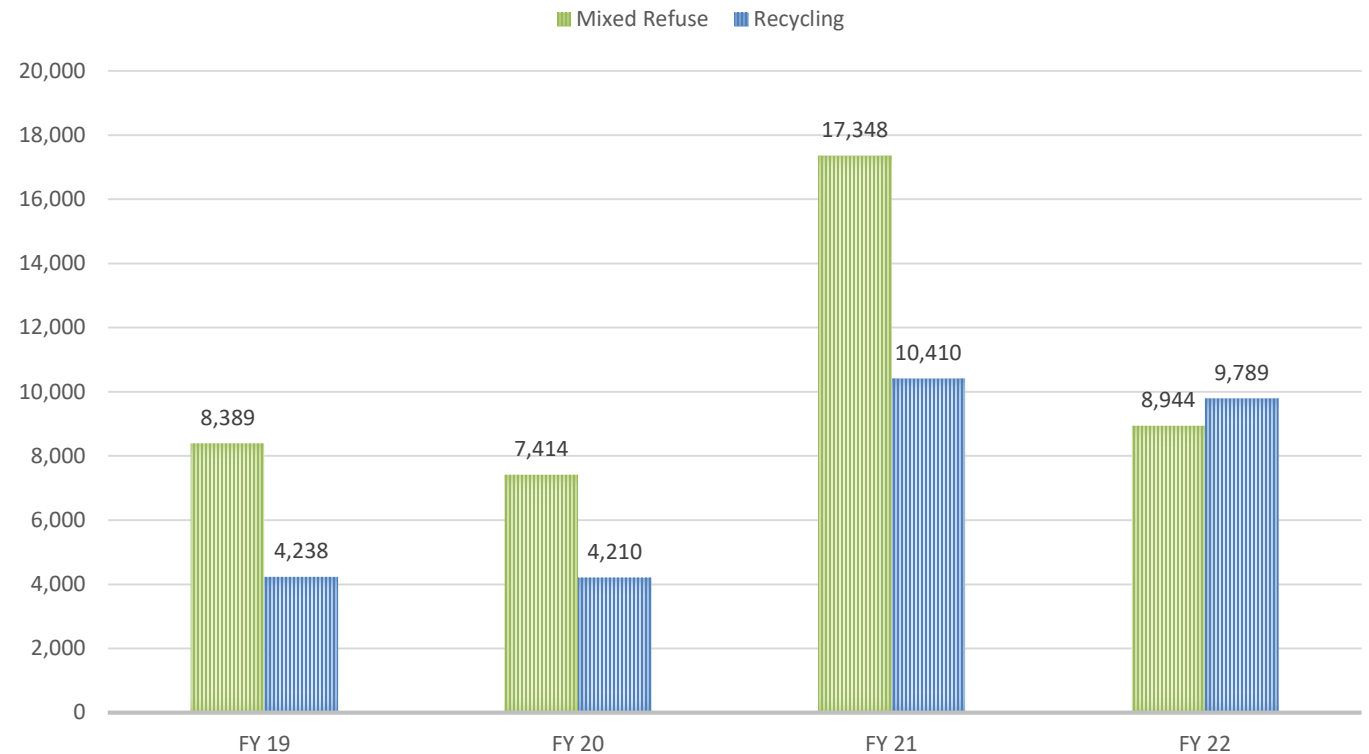
Routine Services

Key Performance Indicator (KPI) Measurements

Mixed Refuse and Recycling KPIs

- Crews available
- Tonnage collected
- Time to complete route
- % of Service Requests closed on time/Days to close Service Requests
- Service request closing responses (crew error vs. citizen error)
- Route information (routes delayed, routes completed, routes rescheduled)
- Injuries, Accidents, and Incidents

REQUESTS CLOSED DURING EACH FISCAL YEAR FROM JULY 1 TO FEBRUARY 28



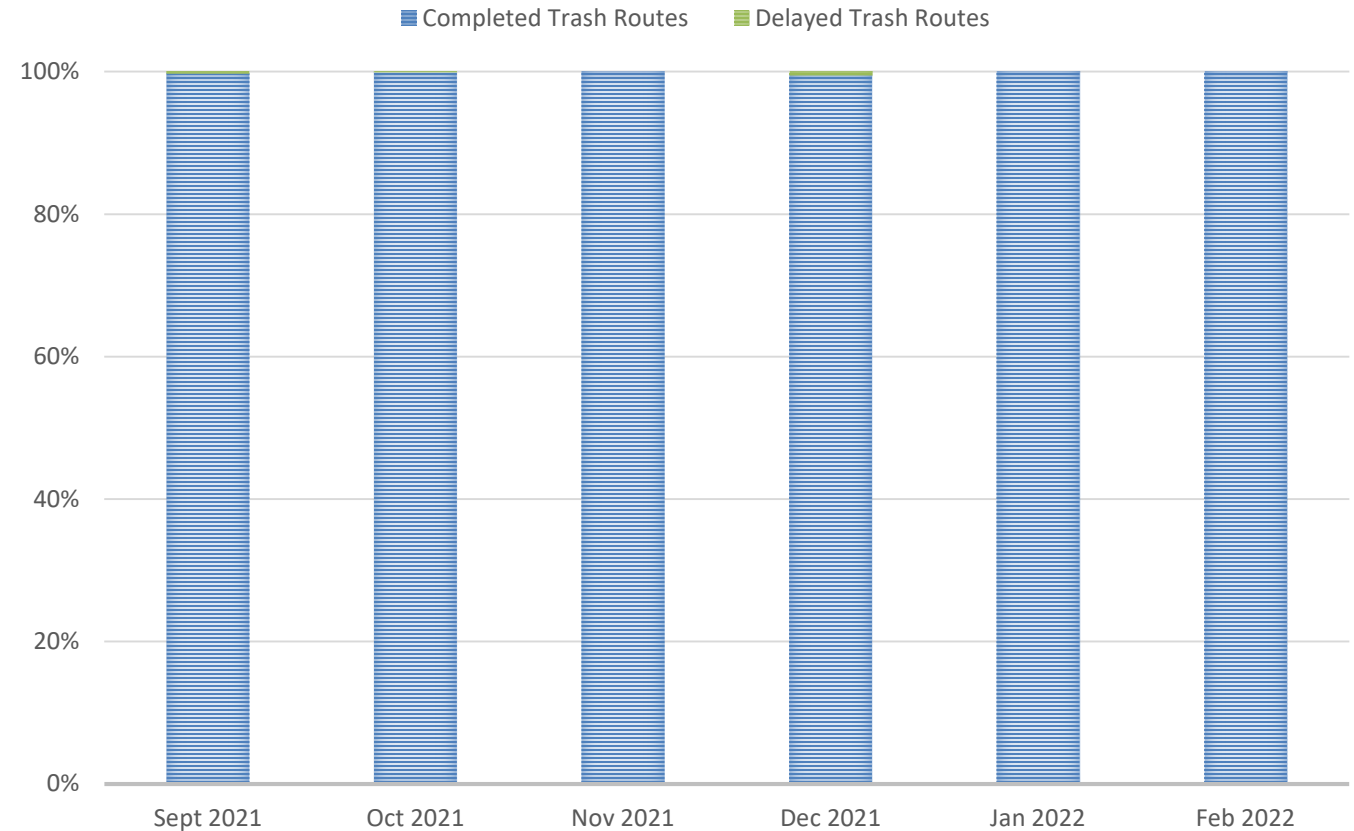
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TRASH ROUTE PERFORMANCE



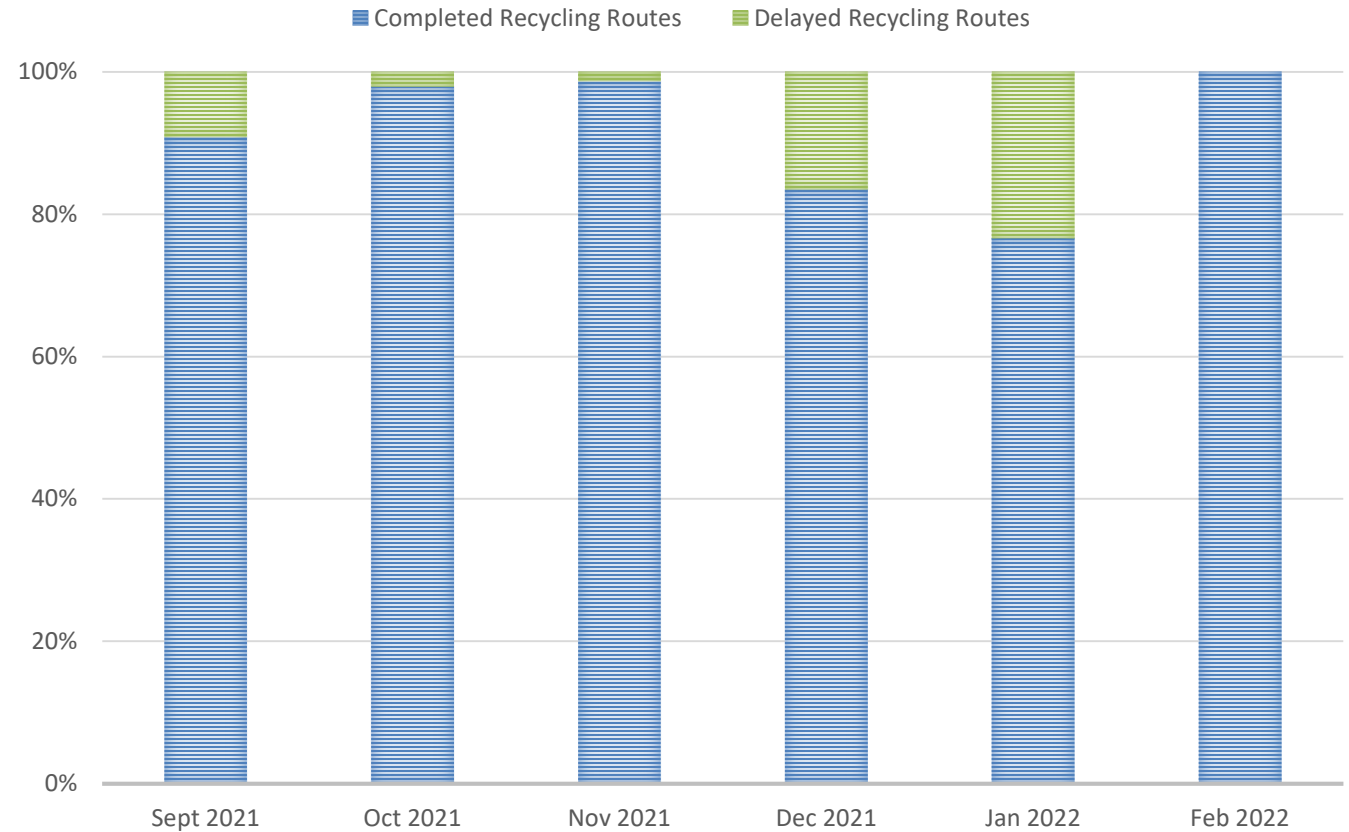
Routine Services

Key Performance Indicator (KPI) Measurements

Mixed Refuse and Recycling KPIs

- Crews available
- Tonnage collected
- Time to complete route
- % of Service Requests closed on time/Days to close Service Requests
- Service request closing responses (crew error vs. citizen error)
- Route information (routes delayed, routes completed, routes rescheduled)

RECYCLING ROUTE PERFORMANCE



Special Services



Before Alley Cleaning



Before SIU illegal dumping clean up



After Alley Cleaning



After SIU illegal dumping clean up

Responsibilities

- Proactive and reactive cleaning of dirty streets and alleys
- Cleanup of illegal dumping sites
- Proactive and reactive graffiti removal
- Bulk trash and appliance collection

Accomplishments

- Dirty Street and Dirty Alley crews are completing the same amount of work that was completed pre-COVID
- Bulk goods and appliance services began in October 2021 and have addressed an average of 212 bulk items and 41 appliance requests a week. Wait times for bulk have decreased from months to weeks.
- Purchasing mini-loadpackers to maximize Dirty Street crew performance and efficiency
- Trained supervisors to use Rubicon for bulk and appliances route optimization.

Challenges

- Addressing fewer service requests when crews are reassigned to assist with Routine Services

Special Services

Total Crews Needed

Alley: 13 crews (13 CDLs and 26 non-CDLs)
 Street: 12 crews (24 non-CDLs)
 Bulk and Appliances: 7 crews (7 CDLs and 14 non-CDLs)
 Graffiti: 4 crews (8 non-CDLs)
Minimum Required: 20 CDL and 72 non-CDL
Minimum with 20% contingency: 24 CDL and 87 non-CDL

FY 22 Budget Needs

Current Operational Staffing Levels

	<u>CDLs</u>	<u>Non-CDLs</u>		<u>CDLs</u>	<u>Non-CDLs</u>
Minimum required including 20% Staffing Contingency	24	87	FY 22 Budgeted Employees	33	88
FY 22 Budgeted Employees	-33	-88	Leave or Unavailable*	-8	0
Additional Employees Needed	0	0	Vacant Positions**	-6	-3
Funding Short for FTE Positions	\$0	\$0	Total Employees Available	19	85
			Staffing Shortage with Contingency (Min required including 20% staffing contingency– Employees Available)	-5	-2

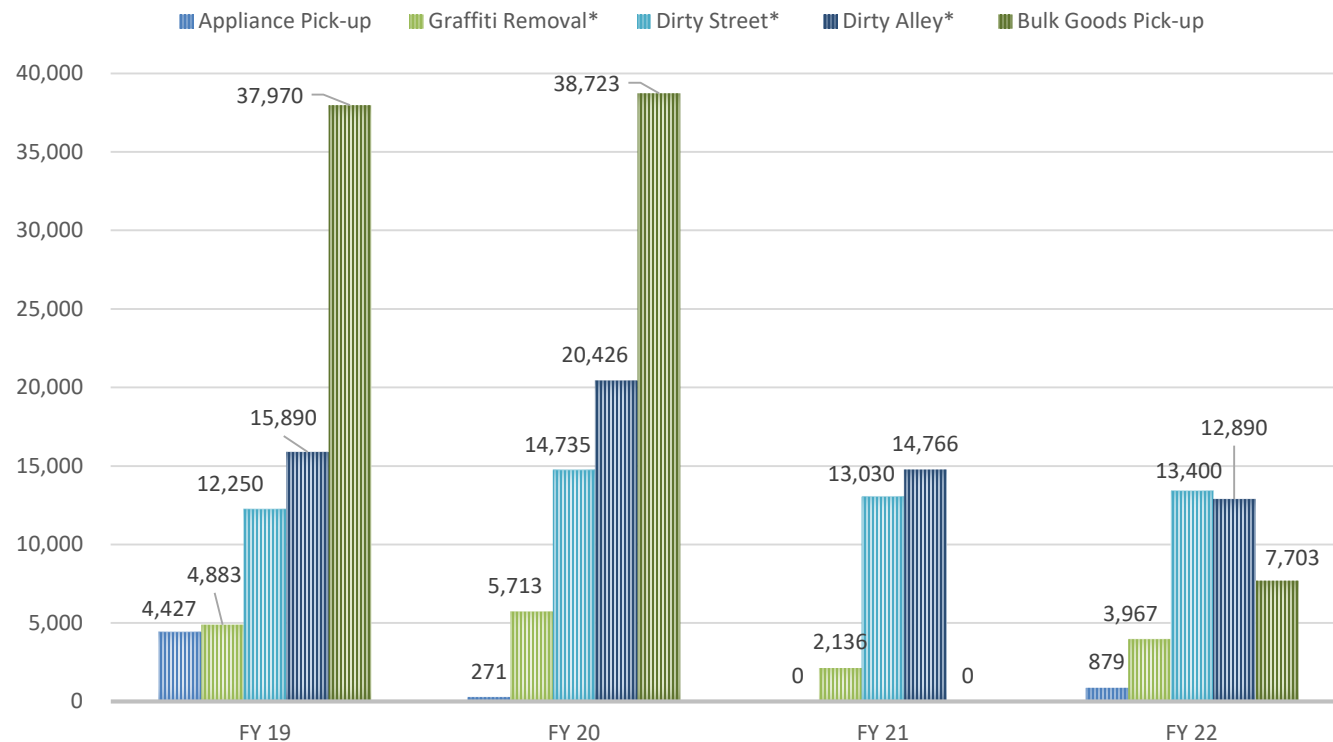
* Leave or unavailable rate is reflective of March 1, 2022 operational data

** Vacancy rate is reflective of February 11, 2022 operational data



Special Services

REQUESTS CLOSED DURING EACH FISCAL YEAR FROM JULY 1 TO FEBRUARY 28



Key Performance Indicator (KPI) Measurements

Dirty Alley + SIU KPIs

- Service requests completed by crew per day
- Days to close service requests
- Tonnage collected by crew per day
- Time spent on each request

Dirty Street KPIs

- Service requests completed by crew per day
- Days to close service requests

Bulk Goods and Appliances Pick Up KPIs

- Missed collection pick-ups

Graffiti Removal KPIs

- Service requests completed by crew per day
- Time spent on each request

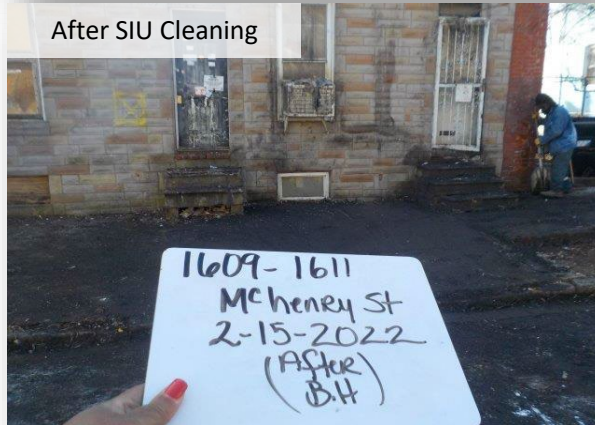


Property Management

Before SIU Cleaning



After SIU Cleaning



Before Boarding



After Boarding



Responsibilities

- Cleaning and mowing of City-owned lots and private vacant lots
- Cleaning of SIU and Fire Debris service requests
- Boarding of vacant properties
- Proactive and reactive rat abatement

Achievements

- Completed 37,779 cleaning and HGW work orders in FY 21
- Proactive rat abatement program completes around 90,000 inspections a year

Challenges

- HCD inspectors create work orders in excess of Property Management's daily capabilities. Over 4,500 Cleaning and HGW work orders are created each month during the growing season (April to October), which is beyond the resource capacity available.

Property Management

Total Crews Needed

Cleaning/HGW: 17 crews (17 CDLs and 51 non-CDLs)

Boarding: 3 crews (6 non-CDLs)

SIU: 4 crews (4 CDLs and 12 non-CDLs)

Minimum Required: 21 CDL and 69 non-CDL

Minimum with 20% Contingency: 26 CDL and 83 non-CDL

FY 22 Budgeted Positions

	<u>CDLs</u>	<u>Non-CDLs</u>
Minimum required including 20% Staffing Contingency	26	83
FY 22 Budgeted Employees	-26	-64
Additional Employees Needed	0	19
Funding Short for FTE Positions	\$0M	\$1.1M

Current Operational Staffing Levels

	<u>CDLs</u>	<u>Non-CDLs</u>
FY 22 Budgeted Employees	26	64
Leave or Unavailable*	-2	-3
Vacant Positions**	-12	-6
Total Employees Available	12	55
Staffing Shortage with Contingency (Min required including 20% staffing contingency– Employees Available)	-14	-28

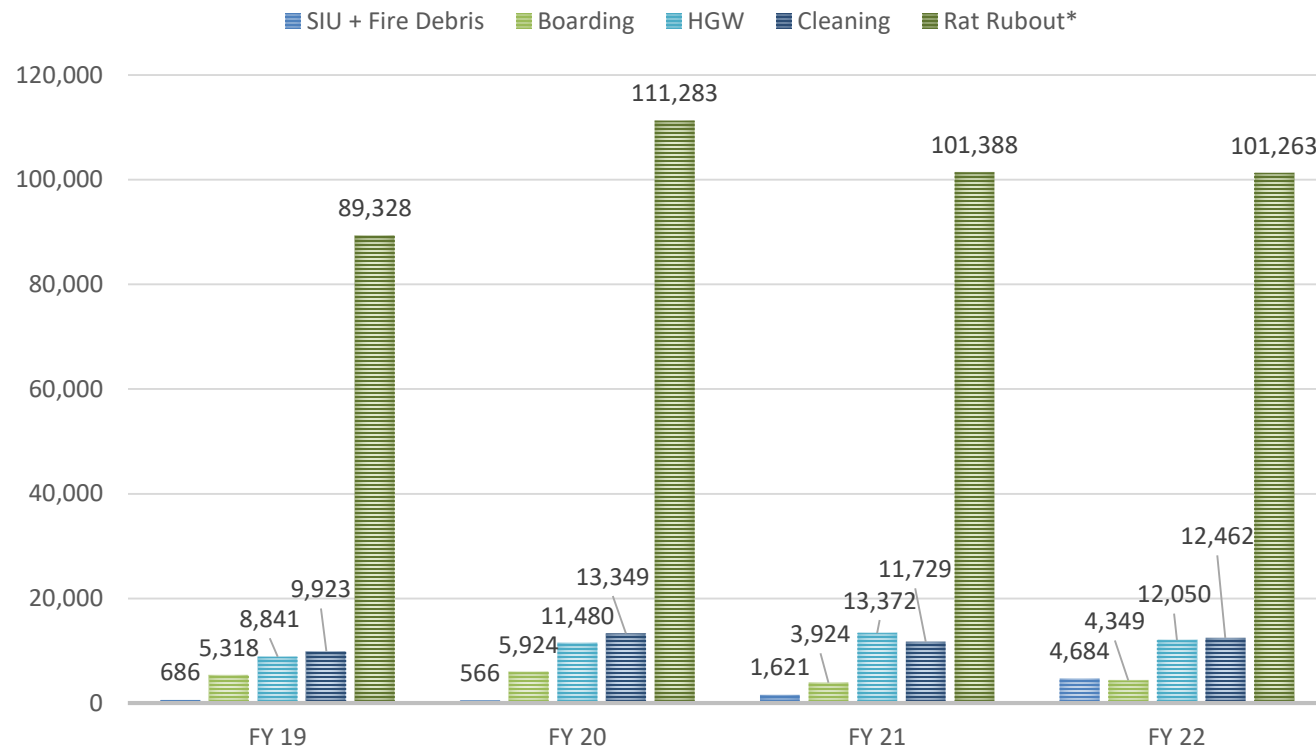
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Property Management

REQUESTS CLOSED DURING EACH FISCAL YEAR FROM JULY 1 TO FEBRUARY 28



Key Performance Indicator (KPI) Measurements

Cleaning + HGW + SIU KPIs

- Service requests completed by crew per day
- Days to close service requests
- Tonnage collected by crew per day
- Time spent on each request

Boarding KPIs

- Service requests completed by crew per day
- Days to close service requests
- # of boards used

Rat Rubout KPIs

- Reactive inspections and baiting completed per day
- Proactive inspections and baiting completed per day



Street Sweeping



Responsibilities

- Citywide and gateway street sweeping
- Operation of 3 Residential Drop-Off Centers that include electronics recycling, scrap metal, tires, appliance, and bulk trash collection.
- Household Hazardous Waste collection days from April to October
- Community Pitch-In and Volunteer Clean-Up Event Programs

Accomplishments

- Continuously swept the Downtown gateways during the COVID-19 pandemic
- Effectively managed an increase in traffic and volume at Residential Drop Off Centers during the recycling schedule change

Challenges

- Fewer routes swept when Mechanical Street Sweeper Operators are reassigned to assist with Routine Services
- Meeting compliance with the MS4 permit

Street Sweeping

Total Needed

Street Sweeping: 29 CDL

Minimum Required: 29 CDL

Minimum with 20% contingency: 34 CDL

FY 22 Budgeted Positions

Current Operational Staffing Levels

	<u>CDLs</u>	<u>Non-CDLs</u>
Minimum required including 20% Staffing Contingency	34	0
FY 22 Budgeted Employees	-34	0
Additional Positions Needed	0	0
Funding Short for FTE Positions	\$0M	\$0M

	<u>CDLs</u>	<u>Non-CDLs</u>
FY 22 Budgeted Employees	34	0
Leave or Unavailable**	-3	0
Vacant Positions**	-6	0
Total Employees Available	25	0
Staffing Shortage with Contingency (Min required including 20% staffing contingency– Employees Available)	-9	0

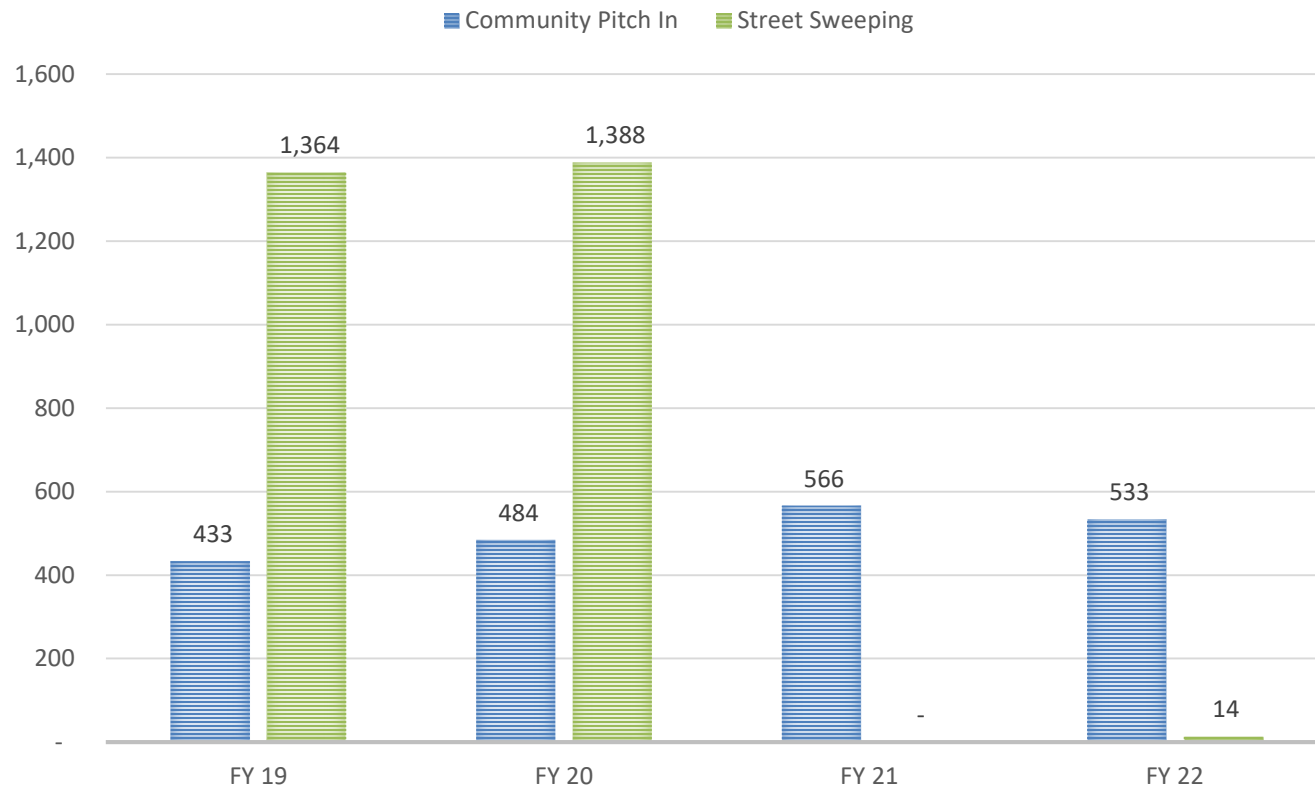
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Street Sweeping

REQUESTS CLOSED DURING EACH FISCAL YEAR FROM JULY 1 TO FEBRUARY 28



Key Performance Indicator (KPI) Measurements

Street Sweeping KPIs

- Tonnage collected
- Miles swept
- Loads collected

Community Pitch-In KPIs

- Tonnage collected
- # of containers provided
- # of containers available

Citizen Drop-Off KPIs

- Tonnage collected for each material type
- Overtime worked



Marine Operations



Responsibilities

- Marine cleaning with skimmers and bass boats
- Cleaning of Inner Harbor and business areas
- Public corner and park can collections
- Trash and recycling services for special events
- Trash and recycling collection for the Midtown neighborhood and small businesses
- Recycling dumpster collections for schools and City agencies
- Trash and recycling dumpster collections for condominiums
- Municipal Trash Can and Recycling Cart Maintenance

Accomplishments

- Maintained the cleanliness of the Downtown area
- Continued cleaning the inner harbor with skimmer boats
- Began optimizing downtown collection routes with Rubicon

Challenges

- Difficulty hiring and filling vacancies for CDL drivers
- Maintaining recycling cart requests



Marine Operations

Total Needed
Minimum Required: 10 CDLs and 34 non-CDLs

Budget Needs

	<u>CDLs</u>	<u>Non-CDLs</u>
Minimum Required	10	34
FY 22 Budgeted Employees	-18	-34
Additional Positions Needed	0	0
Funding Short for FTE Positions	\$0M	\$0M

Staffing Needs

	<u>CDLs</u>	<u>Non-CDLs</u>
FY 22 Budgeted Employees	18	34
Leave or Unavailable**	-1	0
Vacant Positions**	-3	-2
Total Employees Available	14	32
Staffing Shortage with Contingency (Min required including 20% staffing contingency– Employees Available)	0	0

* Availability rate is reflective of February 15, 2022 operational data

** Vacancy rate is reflective of February 11, 2022 operational data



Disposal Services



Responsibilities

- Operation of Quarantine Road Landfill, Northwest Transfer Station, two convenience centers and small haulers program
- Maintenance of closed City landfills
- Expansion of the Quarantine Road Landfill and relocation of the Quarantine Road

Accomplishments

- Prepared proposal to perform a siting and feasibility analysis on inactive and closed landfills.
- Request for Proposal to renovate solid waste facilities is open for solicitation.
- Improvements were completed on the Quarantine Road Landfill's landfill gas collection well network, leachate collection system, and to the geotechnical landfill liner system.
- Engineering design and planning was completed and approved to upgrade the Quarantine Road Landfill's erosion and sediment control facilities and structures.

Challenges

- Difficulty hiring CDL B drivers familiar with heavy equipment or are interested in learning how to operate heavy equipment.
- Difficulty hiring CDL A drivers to operate tractor trailers at the transfer station.
- Managing long wait times at the transfer station as a result of the small hauler's program

Disposal Services

Total Needed

Northwest Transfer Station: 14 CDL, 12 non-CDLs

Quarantine Road Landfill: 10 CDL, 12 non-CDLs

Minimum Required: 24 CDL and 24 non-CDL

Minimum with 20% contingency: 29 CDL and 29 non-CDL

Budget Needs

Staffing Needs

	<u>CDLs</u>	<u>Non-CDLs</u>
Minimum required including 20% Staffing Contingency	29	29
FY 22 Budgeted Employees	-19	-16
Additional Positions Needed	10	13
Funding Short for FTE Positions	\$0.7M	\$0.7M

	<u>CDLs</u>	<u>Non-CDLs</u>
FY 22 Budgeted Employees	19	16
Leave or Unavailable**	-1	0
Vacant Positions**	-1	0
Total Employees Available	17	16
Staffing Shortage with Contingency (Min required including 20% staffing contingency– Employees Available)	-12	-13

* Availability rate is reflective of February 15, 2022 operational data

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Disposal Services



Key Performance Indicators (KPI)

Quarantine Road Landfill KPIs

- Tonnage of different material types accepted, landfilled, and transferred
- Tipping fees collected

Northwest Transfer Station KPIs

- # of Small Haulers visiting per day
- # of Small Hauler permit holders
- # of Residents visiting
- Tonnage of different material types accepted and transferred
- Tipping fees collected

Fleet Management

Snapshot Vehicle Summary for Week of March 1

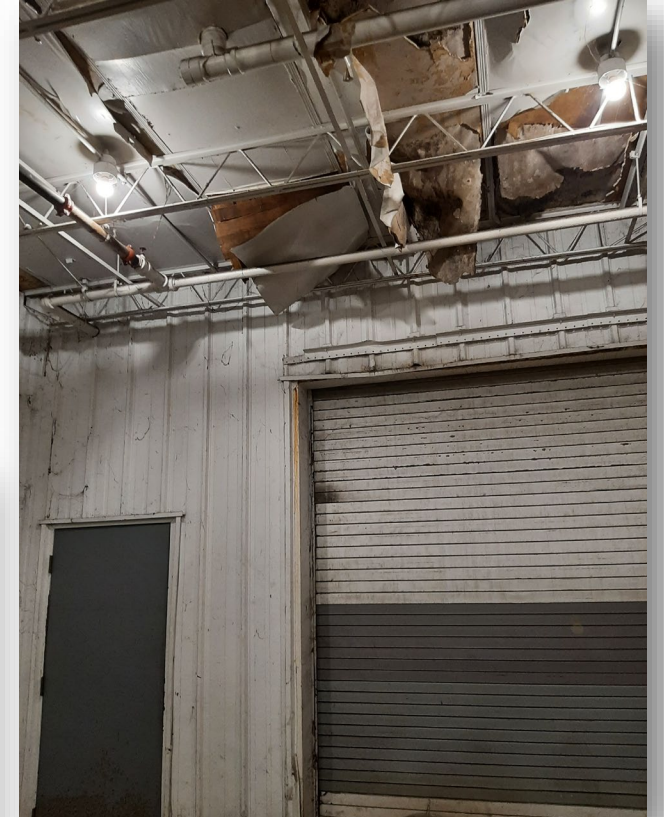
Division	Total Assigned Vehicles	Minimum # of Vehicles Required	Avg # of Vehicles Available to Use	Avg # of Vehicles in Garage for Repairs/ Maintenance	Avg # of Vehicles Used for Operations
Routine Services Loadpackers	104	67	78	26	60
Special Services Loadpackers	11	8	6	5	9*
Special Services Pickup Trucks	8	8	7	1	8
Property Management Pickup Trucks	24	8	13	3	6
Property Management Dump Trucks	30	16	15	7	12
Street Sweeping Sweepers	38	29	20	18	18

*Vehicles were borrowed from other operations



Facilities

- Fiscal Year 23 Capital Improvement Project (CIP) requests included a \$10.8M request to provide urgent and necessary renovations to address OSHA violations at solid waste facilities.
- Total solid waste facility renovations to be requested is \$23.5M.
- A portion of the CIP funds will pay for urgent needs at all solid waste facilities, and the remaining funds will pay for assessment and design services to renovate all facilities.
- Assessment and design services will be provided through two Request for Proposal (RFP) requests. The first RFP will provide total renovations of the Kane Street Facility, and the second RFP will provide total renovations for the Western Sanitation Yard, Eastern Sanitation Yard, Sisson Street Yard, and Quarantine Road Landfill.



Community Engagement

Trash Talk Tuesdays

- Topical videos on waste reduction released on Facebook Live

Food Matters Effort

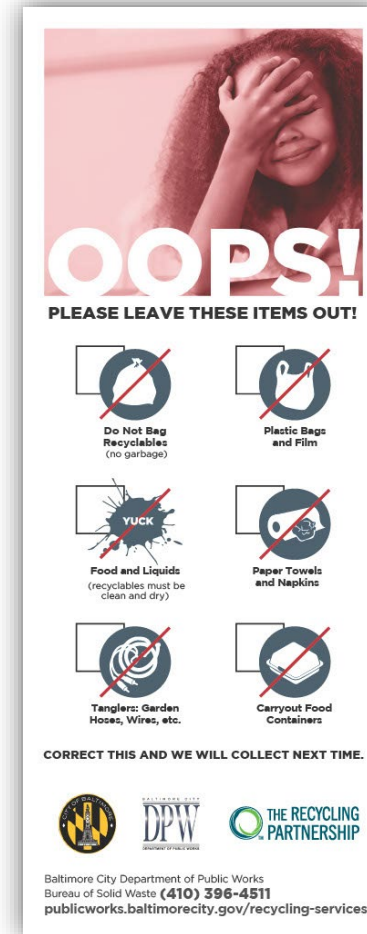
- Began in 2019, NRDC funding concludes 2022
- The program involves support for compost programs and food scrap drop off sites, as well as customized marketing materials and handouts
- There were 5 free compost workshops in 2021; attendees received a free compost bin

GROW Pop-Ups and Shred Events

- Multi-agency supported events for residents to get free trees, mulch and information on city programs, including waste reduction and recycling
- Shred events allowed residents to bring material from home to be shredded and recycled
- 6 GROW centers held in Fall 2021 across the city and 4 shred events held annually

Recycling Anti-Contamination Grant

- Grant funds from The Recycling Partnership to address recycling contamination
- Includes mailers, public ads, and recycling cart tags to mark contaminated recycling bins



Waste Diversion Efforts

Closed Landfill Assessment

- Initiated March 2021, submitted to Contract Administration in September 2021, pending BOE approval
- The goal is to find a location suitable for a compost facility within Baltimore

Less Waste, Better Baltimore (LWBB) Plan

- The LWBB plan is a master plan that includes an assessment of Baltimore's waste, prioritized options for waste diversion, cost estimates, and potential tools to reduce waste

Food scrap drop off pilot sites

- Residents can take food scraps to 5 citizen drop off locations across the city
- DPW plans to formalize the program and potentially expand locations

CIP schedule

- DPW will submit requests for compost facilities and mini materials recovery facilities (MRF) in future CIP request years

Upcoming - HB 264 Organics Diversion compliance

- Producers of 2,000 lbs. or more of organic material will be required to divert
- DPW will collaborate with MDE to educate producers in Baltimore

Expected Maximum Diversion Potential and Performance Timeframes
for Task 5 Diversion/Recycling Options

Diversion/Recycling Option (Details provided in Task 5 Report)	Maximum Diversion Potential (tons)	Expected Performance Timeframe (years)
Food Waste Reduction	72,400	20
Residential Organics Diversion	42,800	20
Commercial Organics Diversion	35,500	20
Improved Recycling Collection	84,200	10
Expanded Recycling Collection	69,300	10
C&D Reuse and Reduction	28,400	10
C&D Diversion	200,100	20
Bulk Waste Diversion	4,100	10
Drop-Off Center Improvements	16,100	5
TOTAL	552,900	-



Thank You

