

Sustainable Materials Management Division Update



Public Facilities Committee Meeting
April 12, 2023

Waneta Trabert
Sustainable Materials Management Director
City of Newton DPW



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Sustainable Materials Management Division

- Curbside collection services
 - Trash and recycling – administer WM contract
 - Residential & fee-based non-profit service
 - Yard waste – DPW staff
- Dumpster collection services
 - Municipal buildings
 - Some residential properties
- Resource Recovery Center
- Street sweeping



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SMM Division Staffing

- Management & Administrative
 - Director, Superintendent, Assistant Superintendent
 - Waste Diversion Coordinator, PT Administrative Assistant
- Street sweeping crew
 - Foreman + 6 sweeper drivers
- Yard waste team
 - Foreman + 5 drivers
- Resource Recovery Center
 - Attendant and two operators
 - Handyman



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Residential Curbside Collection Services

- Weekly trash – 64 gal blue cart
 - Overflow bags or additional cart available for a fee
- Weekly single stream recycling – 64 gal green cart
- Yard waste – 38 weeks per year
- Bulky waste pickup \$20/item
- Appliance/E-waste/ scrap metal item \$25/item
- Mattress & box spring recycling \$60/item
- Organics subscription preferred vendor program



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Resource Recovery Center (RRC) Drop-off Collection Services

- Staffed recycling drop-off center open 5-6 days/week
- Collect 25+ material streams
- 18 household hazardous waste events annually
- 2 secure document shredding & drug take-back events
- Latex paint recycling events
- Recently added collections:
 - Year-round yard waste drop-off
 - Mattress recycling (\$35/item)



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Where is “away”?

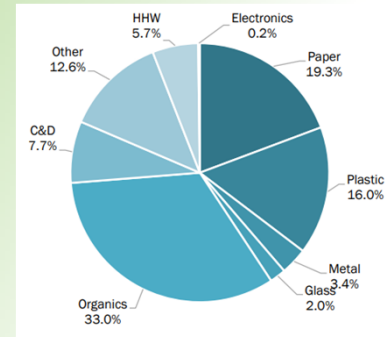
- Solid waste goes to Wheelabrator Millbury
 - 16,961 tons in 2022
- Single stream recycling is processed at WM Avon Materials Recovery Facility
 - 8,586 tons in 2022
- Yard waste is staged at the RRC, then hauled to commercial composting sites
- All other material streams have independent vendors



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Waste Disposal Composition

- 2022 MassDEP Waste Characterization Study of all waste-to-energy facilities
- Wheelabrator Millbury is Newton's contracted disposal facility
- Newton's annual waste is 3.5% of total annual waste managed at Wheelabrator in Millbury



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Dwindling Disposal Capacity in MA

- MassDEP Solid Waste Master Plans 2020 & 2030
 - 2010-2020: Goal to reduce trash disposal by 30% → actual = 16%
 - 2020-2030: Goal to reduce trash disposal by 30% by 2030; 90% by 2050
- MassDEP 2019 Waste Capacity Study
- Study conclusions:
 - Limited and decreasing solid waste disposal capacity
 - Municipal solid waste combustion capacity is being fully utilized on an annual basis and, as these facilities age, they may experience increased down time and maintenance needs
 - Landfill capacity for municipal solid waste and construction and demolition debris (C&D) is projected to decline to virtually zero by 2027



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Disposal Capacity Shortfall Impacts for Newton

- Long lines and wait times at disposal facilities
 - Occurring occasionally now
 - DOT hours limited to 70, as drivers run out of hours, routes could possibly not get finished
 - This is not a hauler issue – we hold the contract with the disposal site
 - Likely to increase costs of hauling contract
- Newton’s 20-year disposal contract ends June 30, 2028
- Longest contract terms now are 5 years
- Disposal costs in other municipalities have increased by 40%+ following long term contracts ending



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Recycling Markets Update

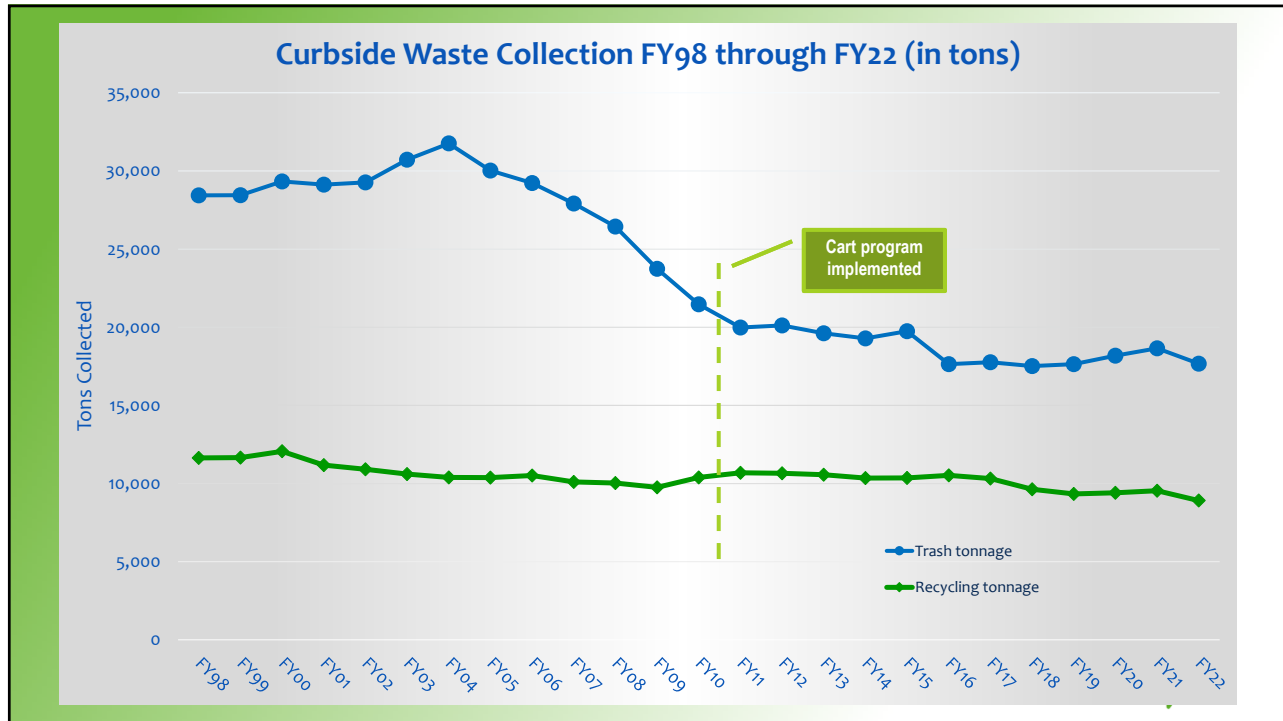
- Mainstream stories that recycling is broken are grossly exaggerated
- Recycling system is flawed, but functioning
 - Not going to get us to zero waste, but much better than disposal
- Commodity values fluctuate... municipal budgets don’t
- 2018 supply/demand shift caused by China import ban
- Recycling markets went up during the pandemic, domestic demand is up – possibility of recession has caused price drop
- Newton recycling values:
 - FY22 Jul-Mar rebate of \$42,000
 - FY23 Jul-Mar cost of \$458,000

Newton trash value:

- FY22 Jul-Mar cost of \$947,000
- FY23 Jul-Mar cost of \$947,000



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DPW Takes Yard Waste In-House

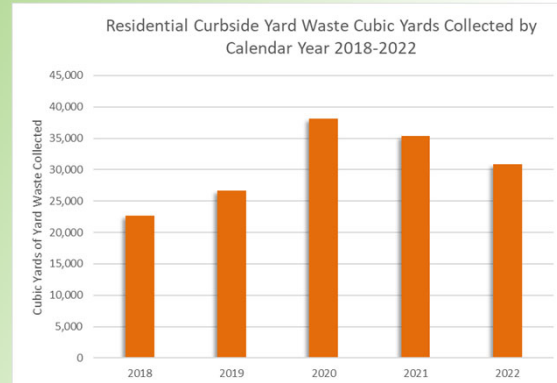
- 6 new union positions
- Rented 4 rear-load packer trucks
- Provided better service in 2022 than contractor in 2021
- Aiming to further improve service in 2023



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Yard Waste Volume

- Significant increase year over year during height of pandemic
- Volumes are coming down, but still a 13% increase over 2019
- Caused FY21 budget shortfall
- Budget has since been adjusted



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Street Sweeping Update

- Fair weather, year-round sweeping program
 - Most squares swept daily, bike lanes swept 2x/week
- Equipment & technology advances
 - Sensors on brooms to track road miles swept
 - Vacuum sweeper deployed weekly to watershed areas
 - Wishlist: regenerative air vacuum sweeper
- MS4 permit requirements informing operations
- Working to optimize routing in 2023
- Street sweeping parking ban area in Nonantum
 - 7 streets ban parking for 4 hrs each month for street sweeping
 - Piloted for 6mos last year, made permanent in Feb



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Organics Collection

Curbside Subscription Preferred Vendor

- Current cost: \$60 per 6 months of weekly collection + one-time cost of \$38 for starter kit
 - 5,000 subscriber threshold pricing will drop to \$50 per 6 months
- As of today we have 2,849 participants (9% of total hh)
- Program diverted 1,694 tons of food waste in Newton (cumulatively)



Drop-off Collection

- 2 carts x 3 pickup per week at Rumford
- Avg. ~1 ton/month
- Expansion plan for 2023
 - 3 locations
 - Bigbelly secure drop boxes
 - 24 hr access
 - Geographically distributed



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Recent MassDEP Waste Disposal Bans

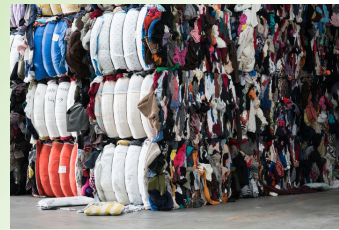
- Effective November 1, 2022
 - Textiles
 - Mattresses
 - Commercial organics generator threshold reduction from 1 ton per week to ½ ton per week



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Textile Recovery Program

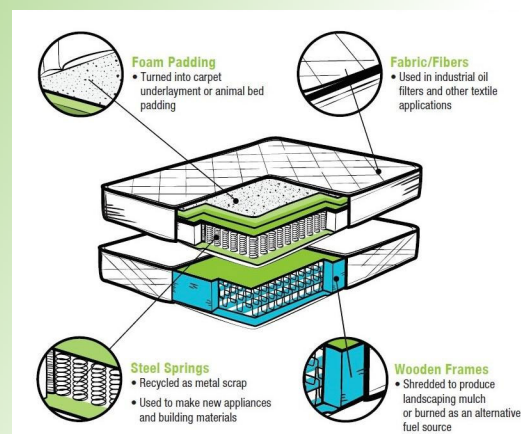
- Free curbside collection by appointment through Helpsy
- 9 collection bins at RRC (various vendors)
- Helpsy bins at 12 school locations
- 75 tons of textiles diverted with Helpsy in 2022



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Mattress Recycling Program

- 820 mattresses recycled since Nov 1
- Collection at RRC for \$35/item
- Curbside collection fee \$60/item
- 75% of a mattress is recyclable
- Anticipated slight uptick in illegal dumping of mattresses



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MassDEP Grant Funds

- Recycling Dividend Program: \$68,000 awarded in 2022
- Eligible expenses:
 - Education & outreach, project-based temporary staffing
 - Improving school recycling & adding food waste diversion
- Grant criteria is changing in 2023, which may reduce the award for Newton
 - DEP incentivizing further waste reduction by shrinking cart size or moving to trash as a utility model



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Curbside Service Waste Reduction Efforts

- 2008-2009 pilot program introducing automated cart system for trash and single stream recycling
- October 2009 city-wide implementation of automated cart system
 - Introduced a trash limit of 64 gal with overflow bags available for purchase
- February 2020 collection fee implemented for bulky waste and whitegoods



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Ongoing Curbside Recycling Education Project

- 1 staff person, 20 volunteers for 3hrs/day during summer/fall
- 11,000 cart-top decals applied
- 29% of households had recycling contamination
 - 19% of these households had high contamination, 66% had low contamination
 - 53% of contamination was plastic bags/film
- Cart volume
 - Trash: 49% of residents set out carts less than 60% full
 - Recycling: 32% of residents set out carts less than 60% full



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MassDEP Technical Assistance Grant

- Nov 2020: DPW awarded a technical assistance grant to develop recommendations for curbside trash and recycling
 - Goals: to reduce trash, maximize environmental protection, and reduce costs/minimize cost increases
- Expect significant service cost increases
 - Hauling contract expires June 2025
 - Long-term trash disposal contract expires in June 2028
- Recommendations report expected soon to inform next steps for curbside services



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Long Term Planning

- Mayor Fuller has committed \$100,000 for development of a long-term sustainable materials management plan
- Holistic view of waste and recyclable materials generated across all sectors within Newton
- RFP in revision, set to be released by June
 - Determine amount and type of waste generated by each sector
 - Recommendations to increase waste diversion and reduce waste generation
 - Explore further expansion of organics diversion
 - Factor GHG emissions into recommendations



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Bigger Picture

- Newton is a statewide leader on advancing product stewardship laws
 - Mayor Fuller recognized as 2022 Public Servant of the Year by MassRecycle for testifying in support of EPR bills and the expansion of the bottle bill
 - Ms. Trabert chairs the Product Stewardship Council
- Model resolution language includes wording from Newton's resolution
- Goal: to get EPR for paint passed this session!



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Recycle Right Newton app

