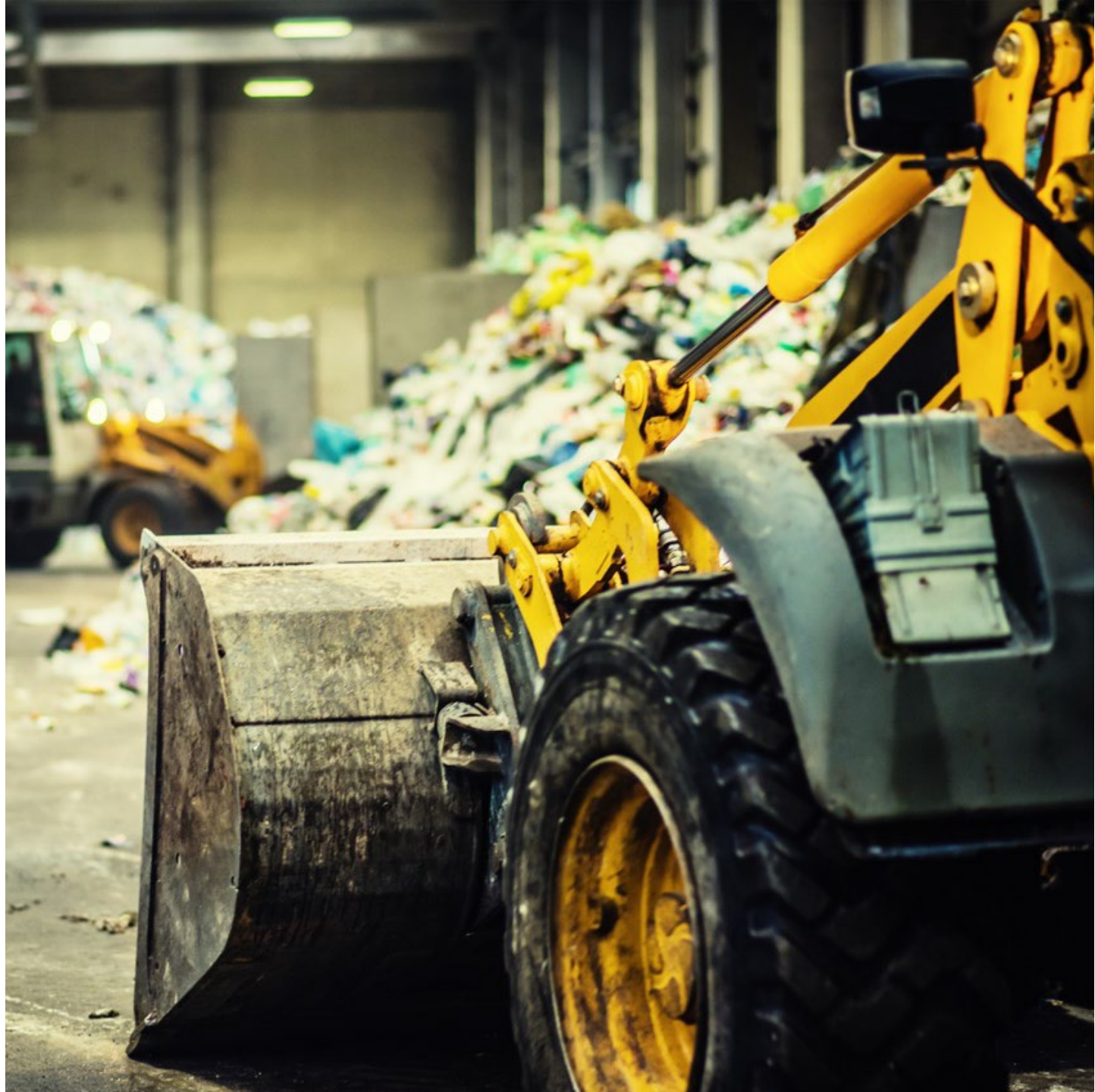


Task 1 Municipal Solid Waste System Assessment and Infrastructure Inventory

Steering Committee Review

October 26, 2022





Methodology

Evaluated Municipal Solid Waste Management (MSW)

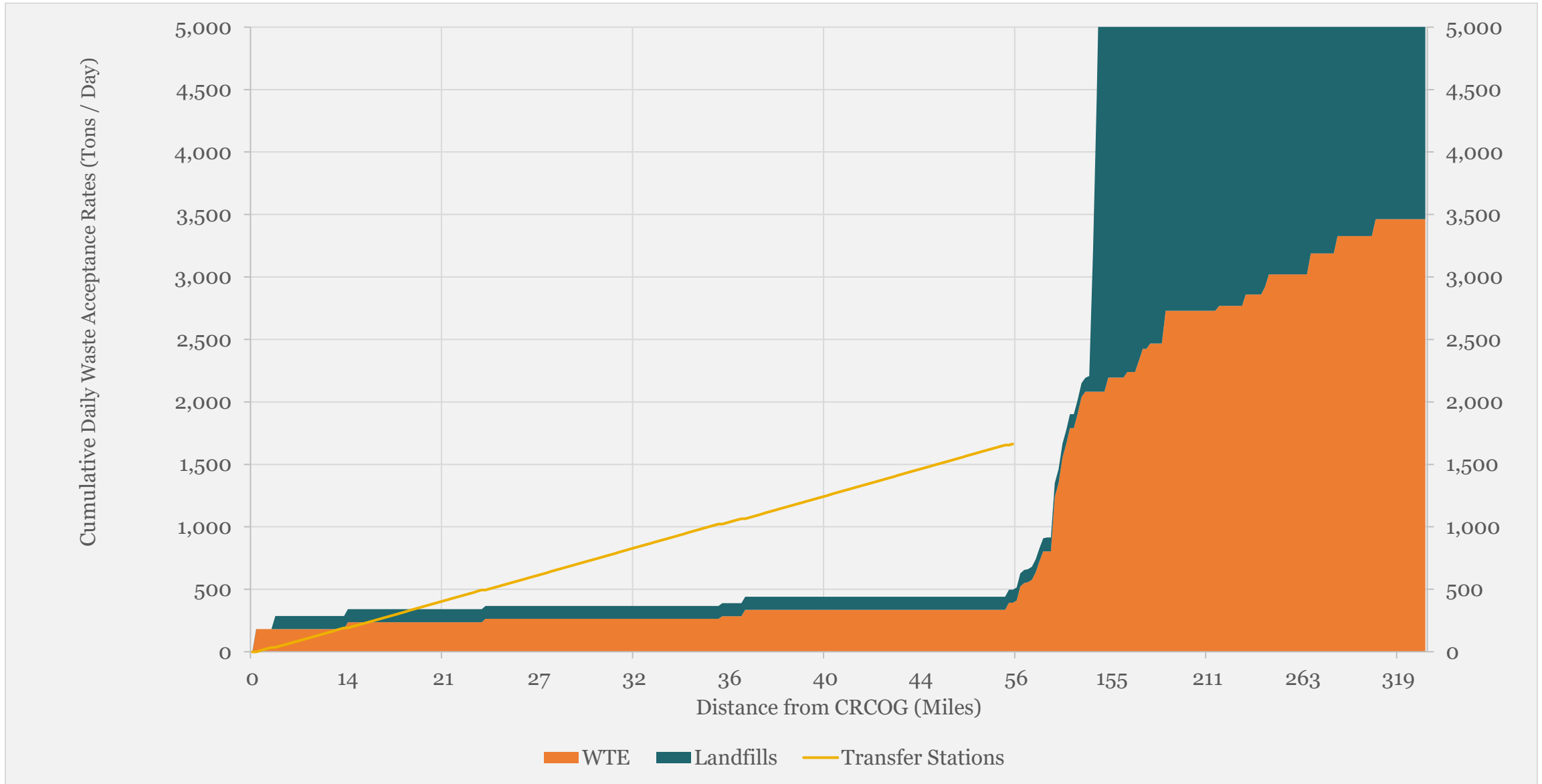
Facility Inventory

- Identified waste, recycling, organics, and transfer facilities.
- Matched waste generation to processing capacities of transfer stations, landfills and WTE facilities.
- Evaluated recycling and organics facilities capacity to support increased volumes.

System Assessment

- Surveyed CRCOG member jurisdictions, held outreach focus group, and reviewed data provided by CT DEEP and CRCOG.
- Performed system assessment using 6 best practice areas.

Waste Processing Capacities (Tons Per Day)



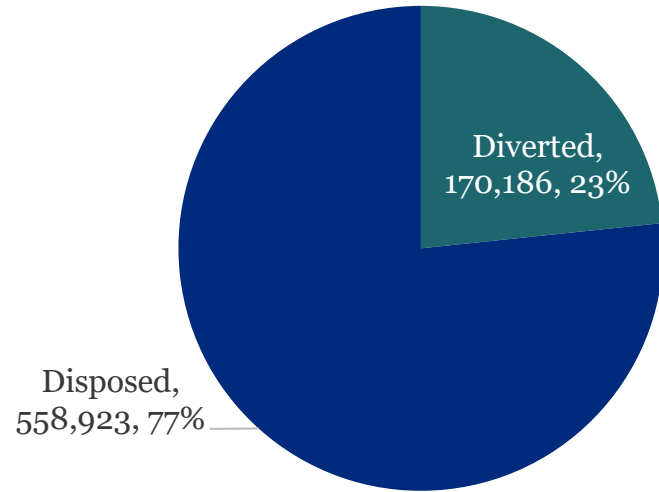
Matching Generation to Processing and Disposal Capacity

CRCOG MSW Generation: 2,020 Tons Per Day (737,323 Tons Per Year)

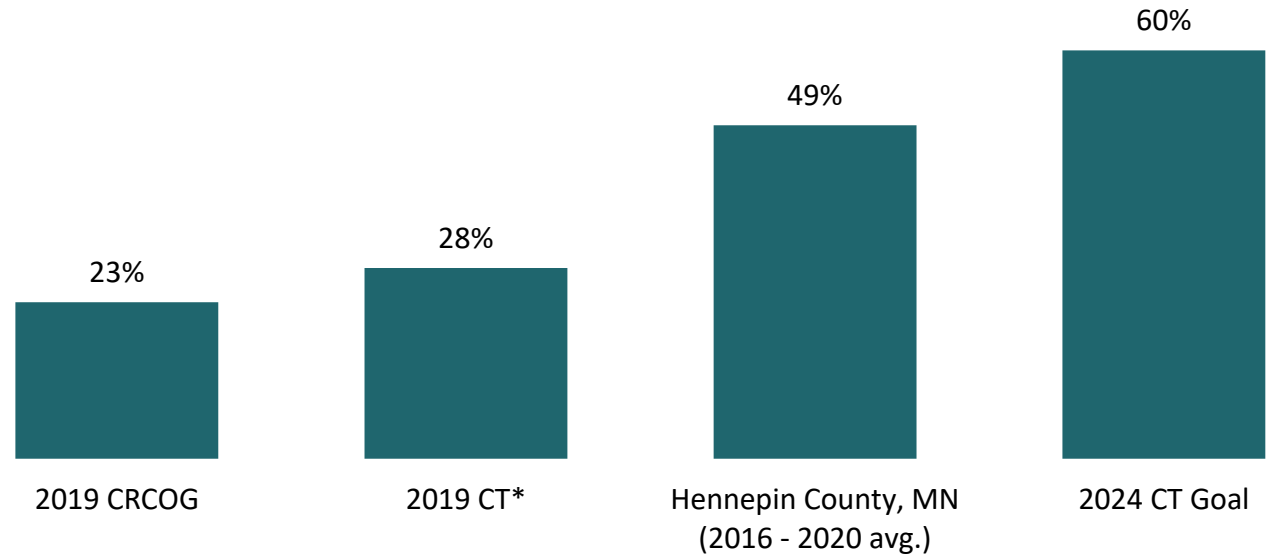
Facility Type (Distance)	Average Daily Capacity (Tons / Day)	Total Available Annual Capacity (Tons / Year)
Landfills (<350 mi)	74,050	27,028,329
WTE (<350 mi)	3,462	1,263,729
Total Disposal Capacity	77,512	28,292,058
Waste Processing Capacity (<50 mi)	1,663	607,068

2019 CROG Waste Diversion Performance

Total Waste Generation: 729,108 Tons



Waste Diversion Rates



* 2019 Data from DEEP. CT and CROG rate does not account for diversion from bottle bill or EPR programs. CET estimates CT 2019 diversion rate is 38%

System Assessment



COLLECTION

- Opportunities exist to increase recycling, food and yard waste access for single family, multifamily, and commercial sectors, and schools and institutions.



PROCESSING

- Additional transfer station and disposal capacity needed to meet waste generation rates.
- Additional organics capacity needed to support food waste collection at scale.



END MARKETS

- Opportunities exist to grow compost markets and for a regional beneficiation facility for MRF glass.
- Markets for hard to recycle materials unknown.
- Local or state accelerators or incubators not identified.



SUPPORTING POLICIES

- Strong policies in place.
- Opportunities exist for unit-based pricing, EPR for packaging, and increasing scope of businesses covered by food waste laws, and amending distance requirements for food waste laws.



EDUCATION & OUTREACH

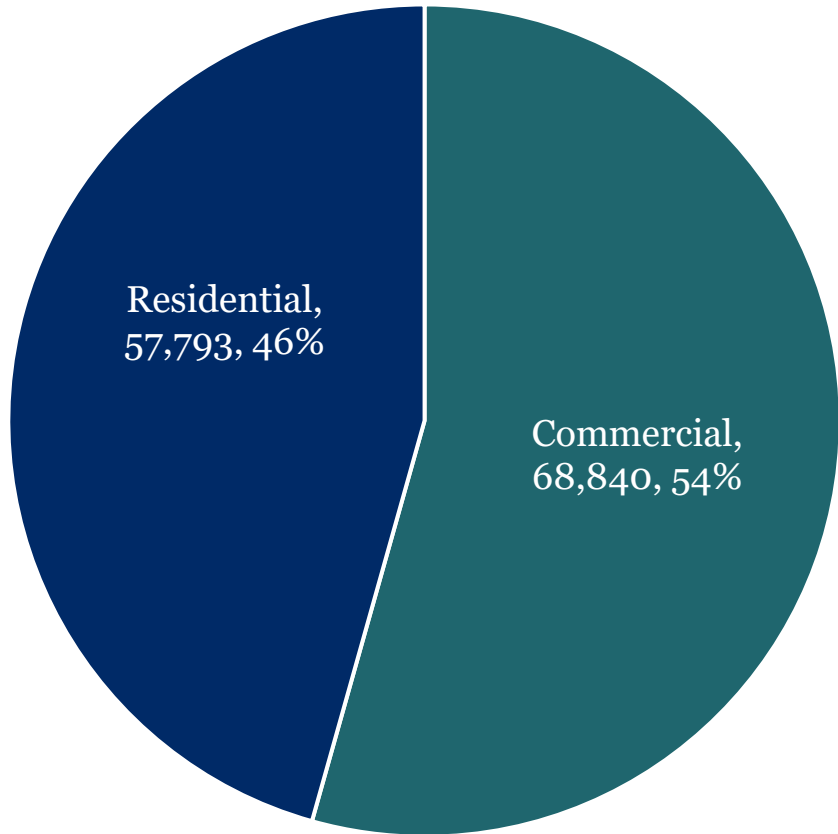
- Opportunities exist to:
- Enhance outreach and education for all residential, multifamily, and commercial sectors.
 - Provide technical assistance
 - Enforce requirements for multifamily and commercial sectors.



PUBLIC PRIVATE PARTNERSHIPS

- Opportunities exist to grow public private partnerships and pursue grant funding to maximize program impact.

CRCOG Food Scraps Disposed (127k TPY)

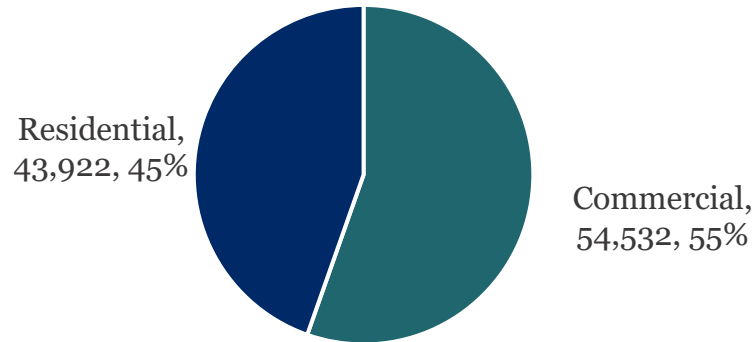


Food Diversion Opportunity

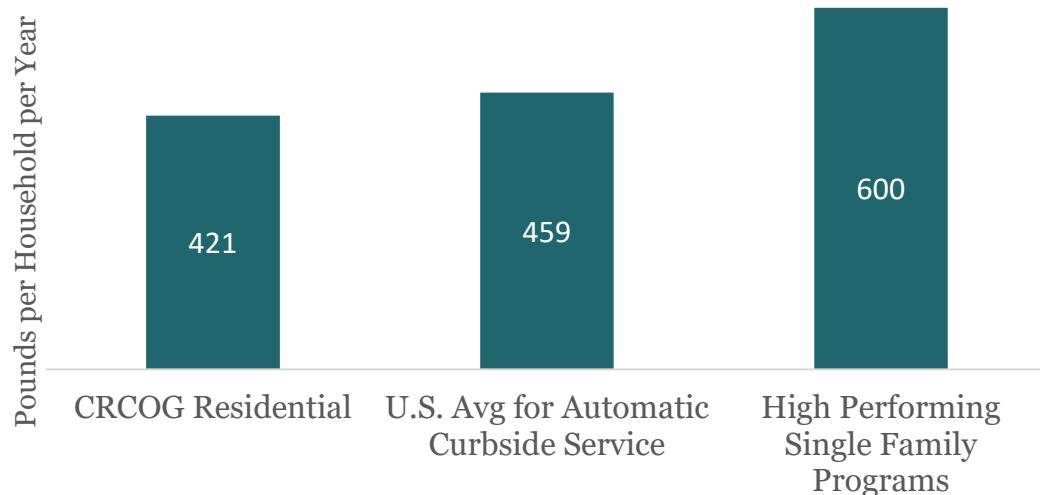
- Quantum Biopower anaerobic digestion (AD) facility in Southington
 - Permitted to process >90,000 tons per year
 - Built capacity is ~40,000 tons per year
 - >10,000 tons per year available capacity is available to increase food scrap collection.
- No composting facilities that process commingled food and yard waste were identified.
- Additional built capacity and/or pretreatment technologies will be needed if food waste is to be collected at scale from residential and commercial sources.
- Outreach, education, technical assistance, and potentially increased collection service offerings could increase commercially collected volumes.
- Extending scope of covered businesses under food waste requirement law could potentially help to increase collected volumes.

Recycling and Waste Prevention Opportunities

Single Stream Recyclables Disposed
(98k TPY)



Residential Curbside Recyclables
Collected per Household per Year (lbs.)



- MRF capacity is sufficient to allow for continued growth of recycling programs given upgrades underway.
- Opportunities
 - Enhance outreach and education for all residential, multifamily, and commercial sectors.
 - Provide technical assistance and potentially enforcement to multifamily and commercial sectors.
 - Optimize recycling access and frequency.
 - Leverage public private partnerships.



Task 1 Conclusions

- CRCOG communities are in critical need of additional transfer station and disposal capacity to meet waste generation rates.
- Lack of local and regional waste transfer and disposal facilities will result in high hauling costs until additional capacity can be developed.
 - Risks – logistics, disaster debris management, lack of spare capacity and redundancies.
- While the CMMS goal of 60% diversion is achievable by CRCOG members, it is unlikely to be reached by CRCOG or the state by 2024.
 - Opportunities to increase diversion of recyclables and food waste from residential and commercial sectors exist.

Next Steps

	Progress	Next Steps
Task 1 System Assessment & Infrastructure Inventory	<ul style="list-style-type: none"> ✓ Draft submitted by consultants for CRCOG staff review. ✓ CRCOG staff comments incorporated into review draft for steering committee. 	<ul style="list-style-type: none"> ❑ Oct 26th presentation to steering committee on review draft.
TASK 2 1-5 Yr Disposal Solutions And Waste Diversion Continuous Improvement	<ul style="list-style-type: none"> ✓ Received information from CRCOG and its members. ✓ Commenced evaluation. 	<ul style="list-style-type: none"> ❑ Evaluate MIRA's current offerings and ability to provide service. ❑ Research transportation and disposal options. ❑ Identify advantages and disadvantages of working with MIRA and alternative solutions. ❑ Identify procurement opportunities or constraints based on CRCOG and member procurement policies ❑ Identify short term waste diversion opportunities and timeline with focus on 'pay as you throw' and organics.
Task 3 10 Yr. Plans for Low, Medium, & High Diversion Options	Pending Notice to Proceed	<ul style="list-style-type: none"> ❑ Commencing work is <u>pending approval</u> for release of funds.

Thank

You.

