



City of Houston Solid Waste Management Department

Mark C. Wilfalk

Quality of Life Committee April 26, 2023

Chair Council Member Robert Gallegos * Vice-Chair Abbie Kamin

Department Overview



Garbage



Recycling



Tree/Junk Waste



Depository



Supplemental Services

HIGHLIGHTS

- Once-A-Week Collection
- Automated services
- 396,730 Households
- MSW - 11,500 tons

HIGHLIGHTS

- Bi-Weekly Collection
- Diversion rate 39%/29%
- 112,244 annual tons collected
- Commercial Recycling

HIGHLIGHTS

- Monthly Collection
- Annual tons collected:
 - HT- 262,000
 - TW - 40,000

HIGHLIGHTS

- Residential drop off
- 6 locations
- 6 days/week
- 7,000 annual tons

HIGHLIGHTS

- BOPA
- Homeless Encampments
- Council District Service Fund Projects
- Litter Abatement
- HHW Drop-off Sites

HOUSTON SOLID WASTE MANAGEMENT PLAN

In 2021, Mayor Turner and City Council made a decision to support the stakeholder engagement process and accelerate the process through CM Kamin's amendment 8.01 (Motion 2021-0312).

The development of an ordinance is currently under consideration to bring to Council.





RRIC

RESOURCE RECOVERY IMPLEMENTATION COMMITTEE

This committee became the stakeholder group, which was a cross-section of businesses, waste and recycling industries and environmental groups.

Purpose

- Focus on reducing MSW from businesses, institutions and industry
- Exchange information
- Identify sector trends
- Make connections
- Make specific program, policy and infrastructure recommendations

THANK YOU TO OUR PARTNERS



Michael Carleton & Associates, Inc.

HOUSTON COMMERCIAL AND MULTIFAMILY SECTOR

- The Houston region estimated GDP = \$512 billion
- The City employment is 3.6 million people
- Home to Fortune 500 Companies
- Key institutions: Rice University, University of Houston, Texas Medical Center, University of St. Thomas
- Major venues such as Minute Maid Park, NRG Stadium, and others
- Two major airports



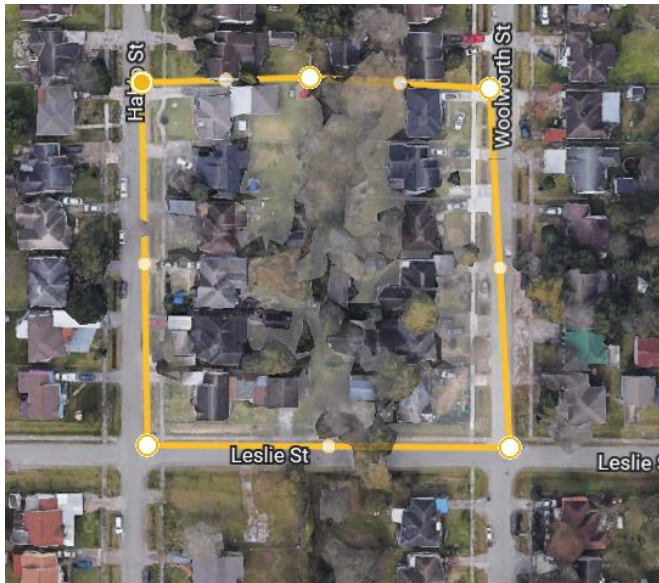
SOURCE OF WASTE



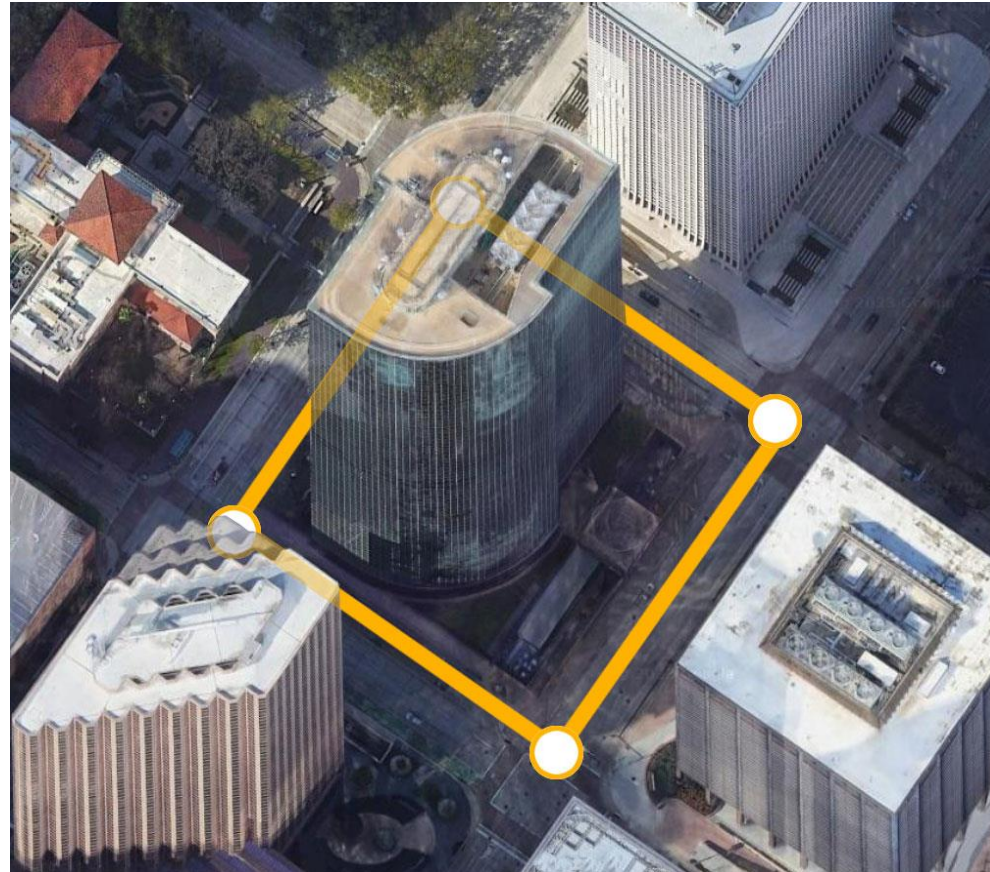
- Commercial and industry accounts for 67%; multi-family is 15%; residential is 18%
- This project is focused on the 82% commercial, industrial and multi-family sources
- A 10% reduction in commercial/multi-family stream is equivalent to 45% reduction by the residential sector

RESIDENTIAL vs. COMMERCIAL

2.5 acres = 16 tons/year



2.5 acres = 1000 to 2000 tons/year



HOUSTON CHALLENGES

- Program funding
- Right-sizing the department (labor & equipment)
- Enforcement of Illegal dumping
- Multi-family waste management and disposal practices
- Greater participation in Commercial Sector
- Disaster Response and Ongoing Storm Events
- Long-term landfill disposal capacity



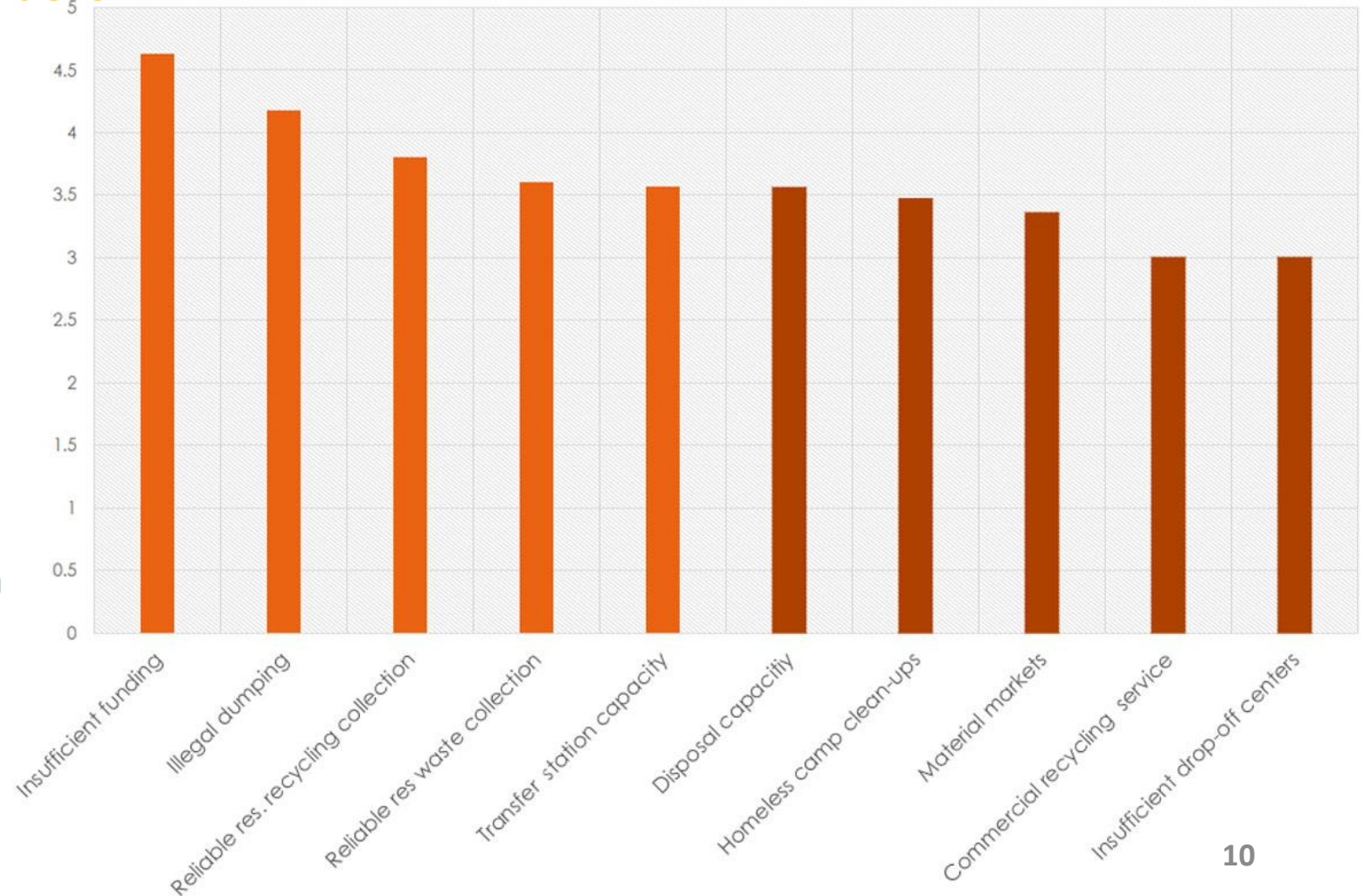
MAJOR CHALLENGES FACING SWMD

According to the RRIC Members

5 - Major challenges

1 - Least challenge

- Insufficient funding
 - Increased vacancy rates
 - Undersized vehicle fleet
- Illegal dumping
- Reliable residential recyclable collection service
- Reliable residential waste collection service
- Transfer station capacity



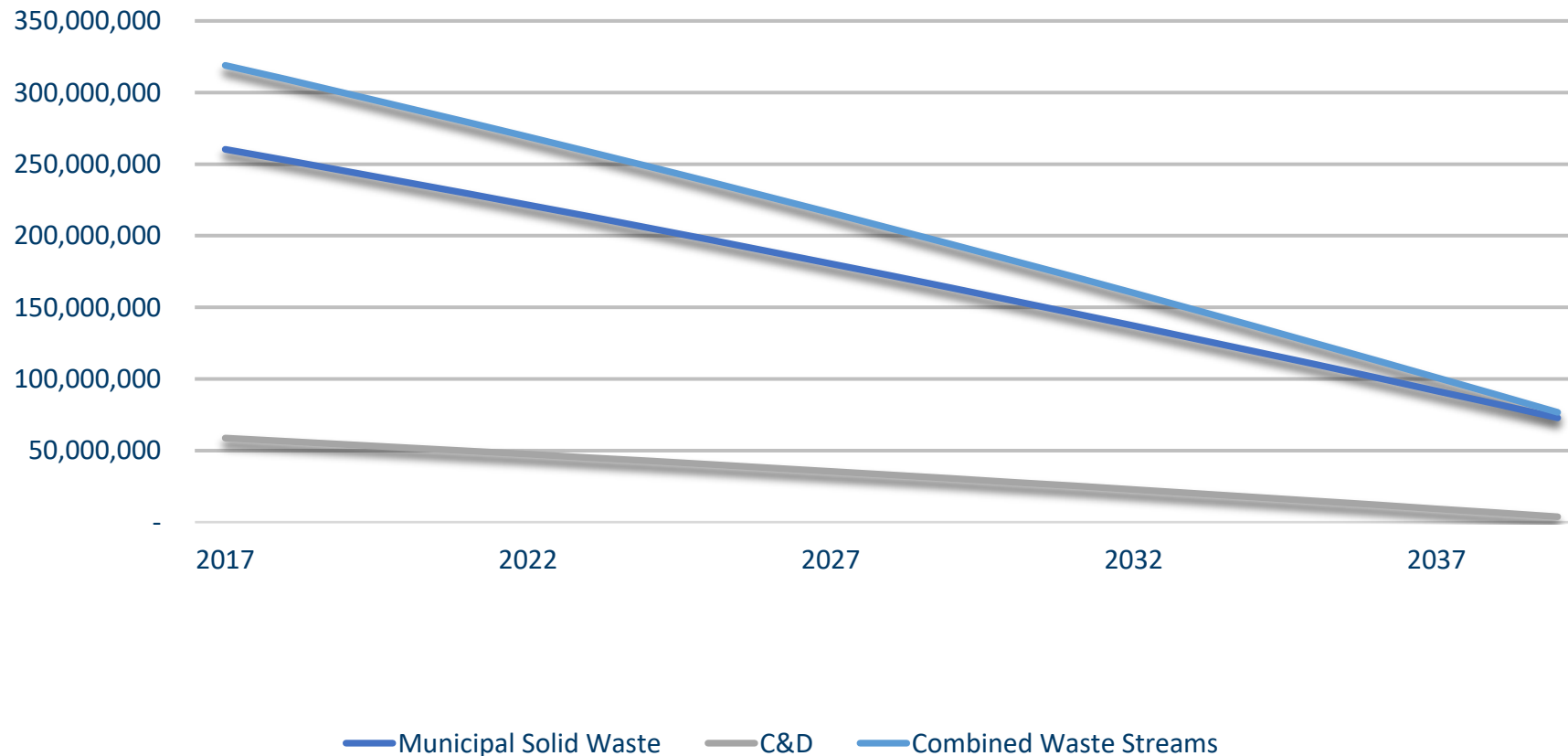
MAJOR CHALLENGES TO COMMERCIAL, INDUSTRIAL & MULTI-FAMILY RECYCLING (RRIC SURVEY)

Costs
Space
Interest
Infrastructure

High cost to recycle versus disposal	3.88
Insufficient space for placing collection equipment	3.69
Management disinterest in a program	3.53
Lack of infrastructure for separating or collecting materials at your place of work	3.47
Lack of understanding of what options are available	3.29
Need for additional labor to recycle	3.24
Insufficient information on how to implement a program	3.24
No service available to collect separated materials	3.13
Staff disinterest in participating in a program	3.00
Lack of markets	2.76

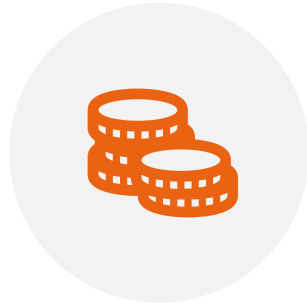
DECLINING LANDFILL CAPACITY

Regional Landfill Projected Capacity 2017-2040 (cubic yards)



- Securing new landfill space can take **10-15 years** to complete.
- Currently, there are 12 MSW Landfills in the Region
- By 2040 only 5 of the 12 MSW sites will still be in operation.

SOLID WASTE MANAGEMENT PLAN GOALS



Financial
Sustainability



Waste Reduction &
Recovery



Quality Service



Long-term Disposal
Capacity



Environmental
Responsive



One Clean Houston

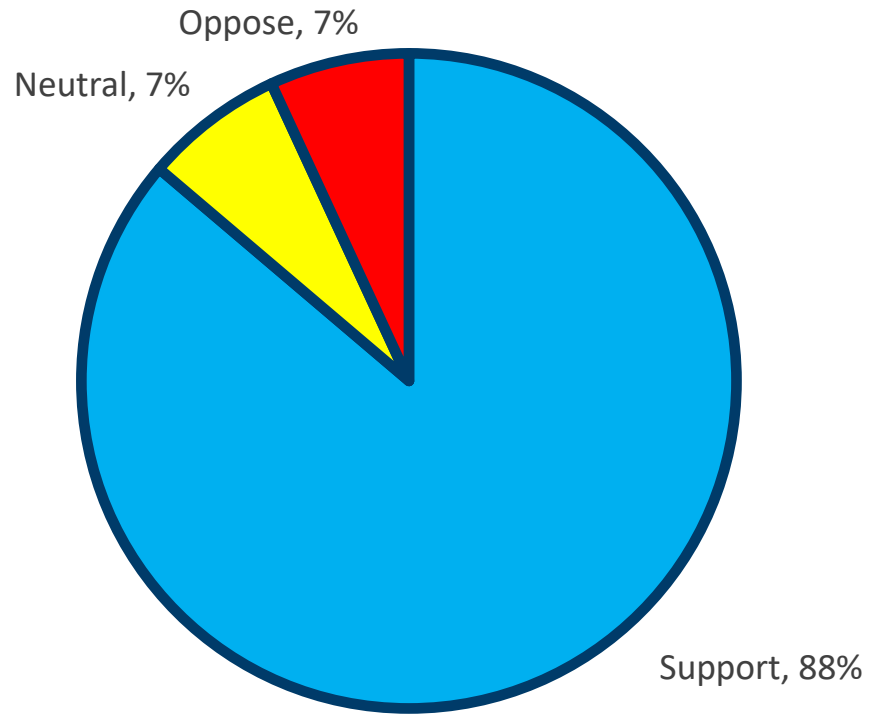


CITY POLICY OPTIONS

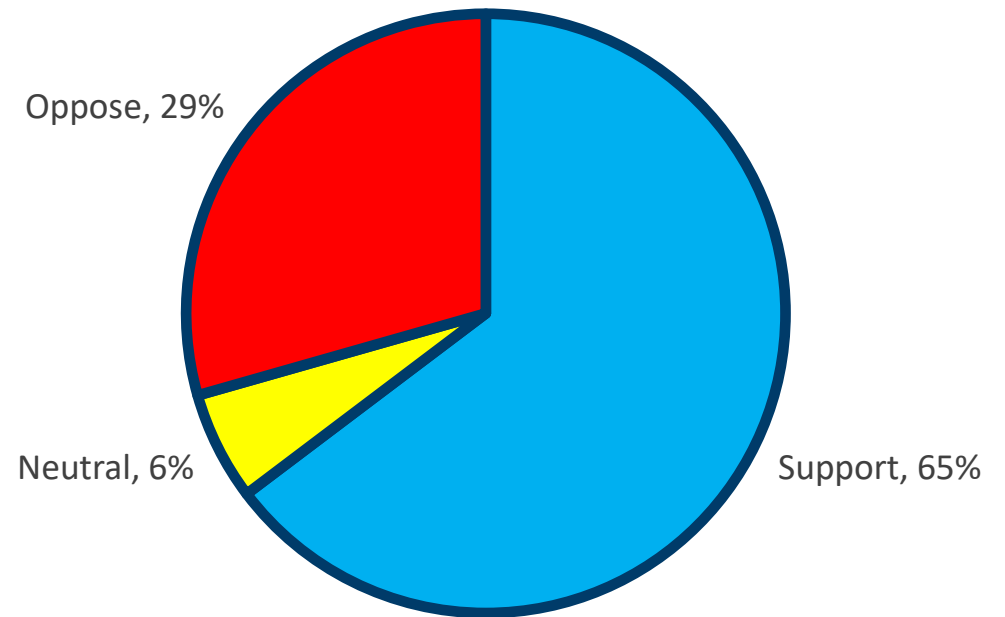
- Public Education/Demonstrations and Pilot Program
- Market Development
- Infrastructure
- Regulatory
- Financing
- Mandatory Multi-Family Recycling
 - Austin, San Antonio, Ft. Worth

PROGRAM FUNDING

Support Monthly Residential Fee

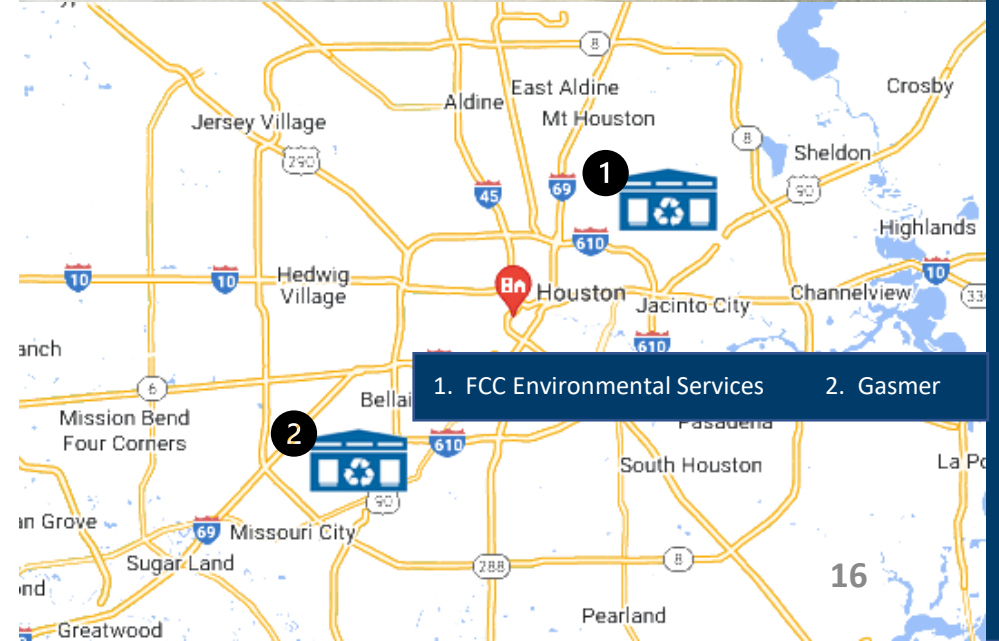


Support Monthly Environmental Fee - Businesses and Institutions (Excluding Residential)



RECOMMENDATIONS

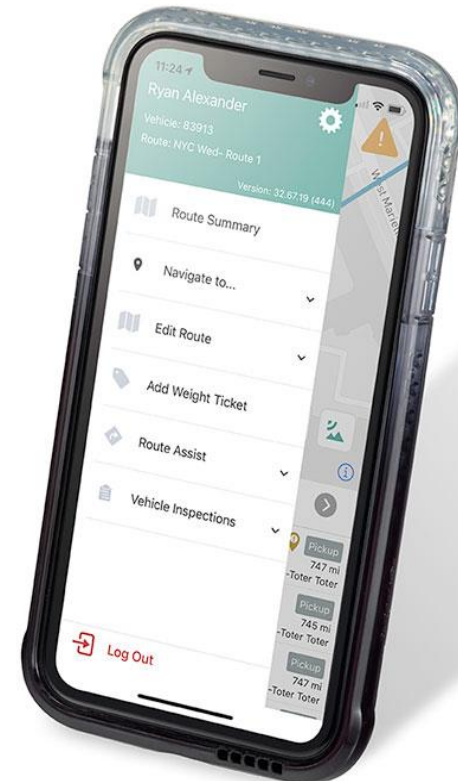
- Implement sustainable solutions to address systemic issues
- Collaborate with industry partners to implement current business practices
- Improve infrastructure and increase outlets to accept small and large quantity generators
- Increase commercial recycling (start with COH facilities)
- Improve outreach and communications





RUBICON

1.5 YEAR REVIEW



RUBICON - 1.5 YEAR REVIEW



One Year Improvements

- Digitized 1,061 Routes
- Issues at the Curb – photos taken
- Route Assist – reduced route overlap & redundancies
- Expanded into Heavy Trash
- Integrate with Future Work Order Management System

Nominated for IDC Smart Cities North America Award

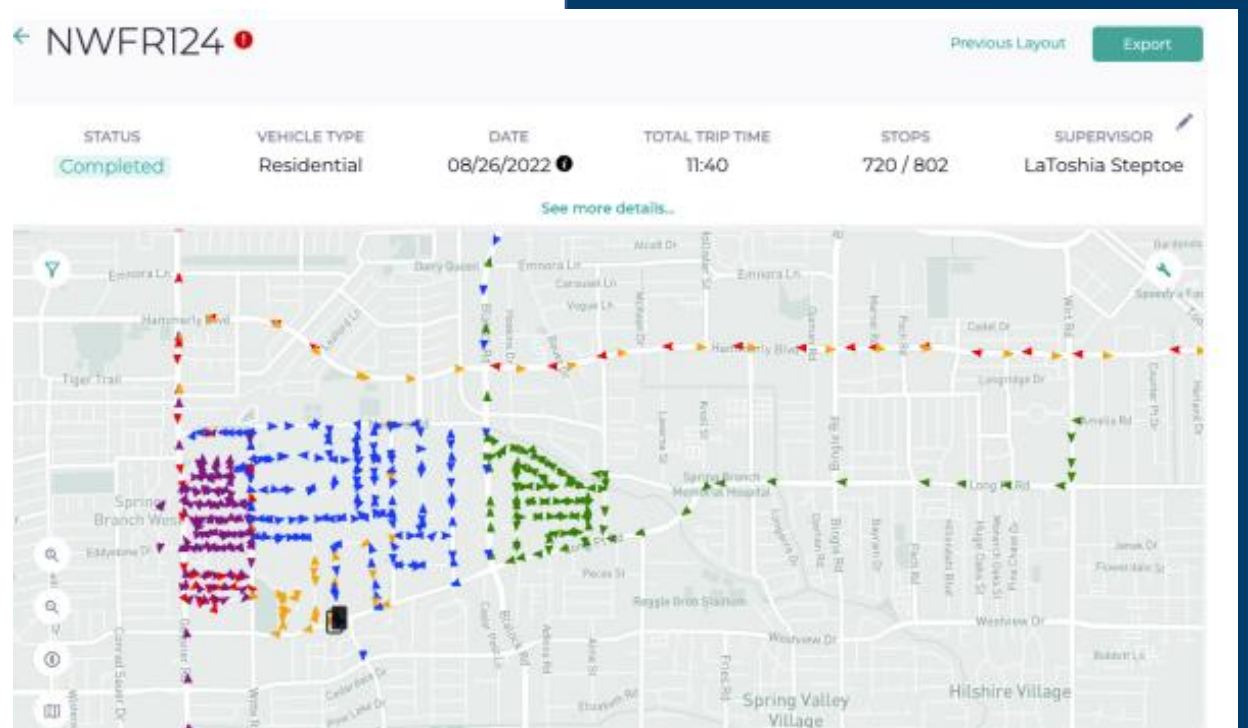
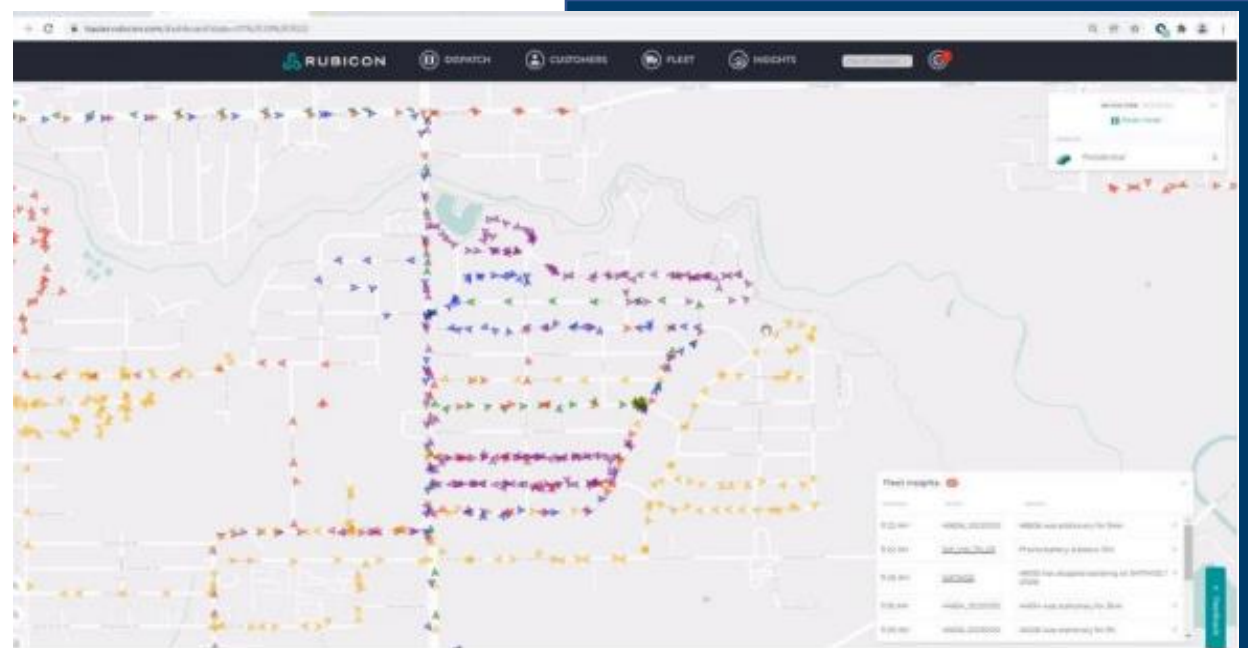


RUBICON

1.5 YEAR REVIEW

- Dynamic route optimization
- Eliminates route overlap
- Identifies most effective collection routes
- Reduce operating cost
- Boost collection productivity
- Saves time
- Helps to reassess resources

Ineffective
Overlapping Routing



Optimized
Routing

RUBICON INSIGHTS

- Photos of issues at the curb
- 3-1-1 Agents Access for resident calls



ANY
QUESTIONS?

