



CITY OF HOUSTON LONG RANGE SOLID WASTE MANAGEMENT PLAN, THE NEXT 20 YEARS - DRAFT

Protecting and Enhancing Houston's Environment and
Providing Quality Service to the Community

Agenda

- ❖ Welcome
- ❖ Meeting Begins 6pm
- ❖ Overview Presentation (30 min)
 - Project Background
 - Goals & Objectives
 - Action Plan
- ❖ Q&A (15 min)
- ❖ Comments from Speakers
- ❖ Further Q&A as time allows
- ❖ Meeting Concludes 8pm



To ask a question, use the chat box and type the word "question" before your entry.

To request to speak, enter the phrase "request to speak" in the chat box.

If you are on the phone and not in front of a computer we will call for speakers as well at the end of the presentation.

Everyone, except those speaking, will be muted during the presentation.

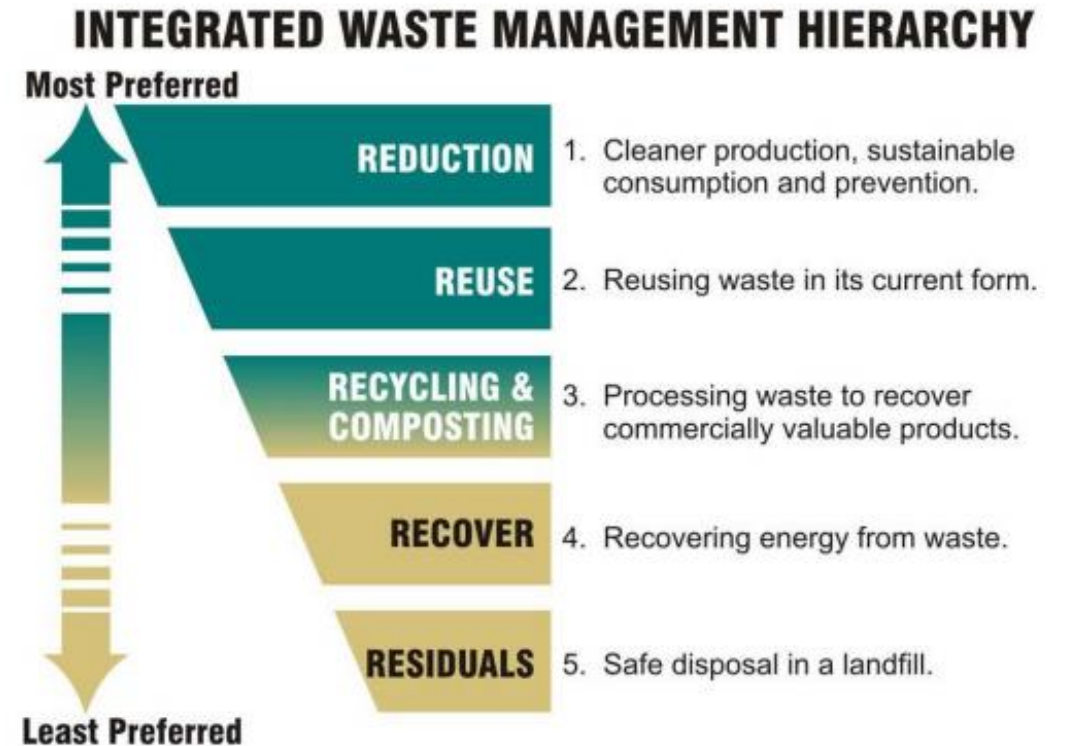
The meeting is planned for 2 hours, including time to take your questions or comments.

You may submit written comments to our website:

www.houstontx.gov/solidwaste/longrange/

Why Does Houston Need a Solid Waste Plan?

- ❑ The City requires a comprehensive and integrated plan that considers and addresses all components of an integrated solid waste system
- ❑ Looks out 20 years
- ❑ What services should the city provide?
- ❑ How to sustainably fund needed services and programs
- ❑ How best to manage various waste streams (residential, multi-family, commercial, construction, organics)



Source: US Environmental Protection Agency



Project Scope

- Evaluate the status of Houston's solid waste /materials management ecosystem
- Quantify waste generation and material recovery
- Project future solid waste management needs.
- Evaluate services provided
- Assess the City's waste management infrastructure
- Evaluate industry best practices
- Prepare action items that lead to a long-term sustainable solid waste program

Overview of Project Steps to Date

Project began September 2018 with extensive background research and data analysis

- Facilities Analysis & Report
- Waste Generation, Forecast & Diversion Report
- Analysis of Current Programs and Industry Best Practices
- Funding Assessment
- Draft Plan



Mayor's Advisory Task Force

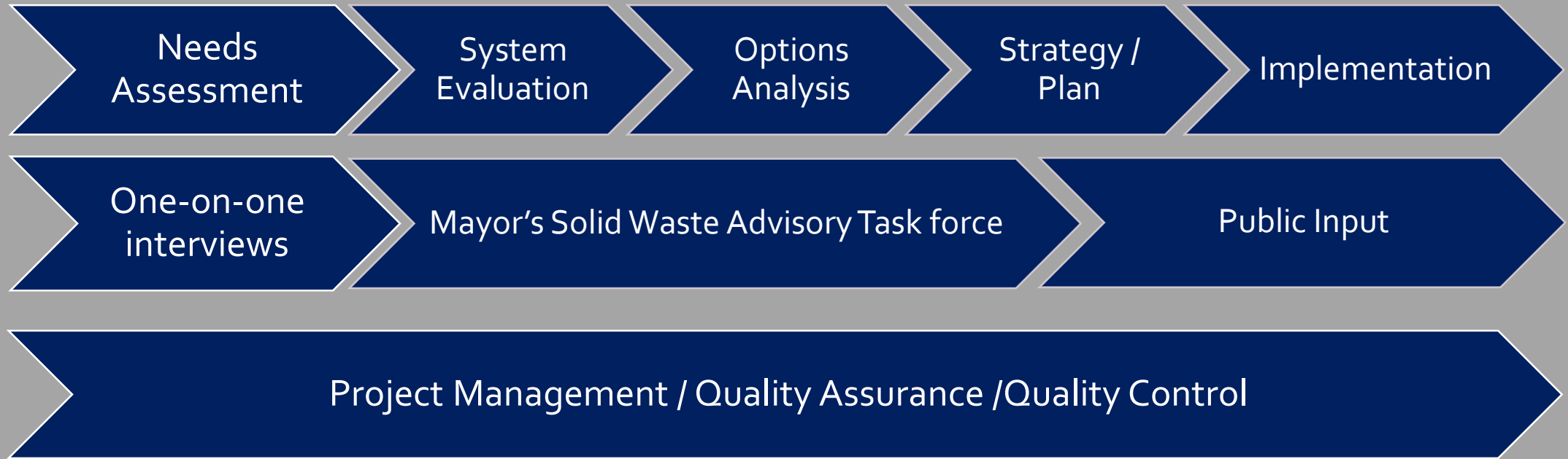


Citizen Task Force Members

Becky Edmunson – Community Representative
Jessica Hulse – Community Representative
Allen Goodlow – Community Representative
Debbie White – Community Representative
Rogene Calvert – Community Representative
Vincent Sanders – Community Representative
Abate T. Wolde-Kirkos PhD - Academic
Amy Boyers – Community Representative
Rachel Powers – Non-profit Organization
Cheryl Mergo – H-GAC
Brandon Rogers – Solid Waste Industry
Shanna Lopez – Solid Waste Industry
Andy Teas – Apartment Industry
Lora Hinchcliff – Composting Industry
Justin DuBose – Composting Industry
Andrea Rodriguez – Recycling Industry
Joe Rizzo – Construction / Demolition
Brett Sarver – Solid Waste Industry
Andra Wilcox - HARC



- Establish Goals & Objectives
- Review Technical Assessments & Reports
- Recommend Priorities
- Provide Input on Plan Direction
- Assist in Public Outreach

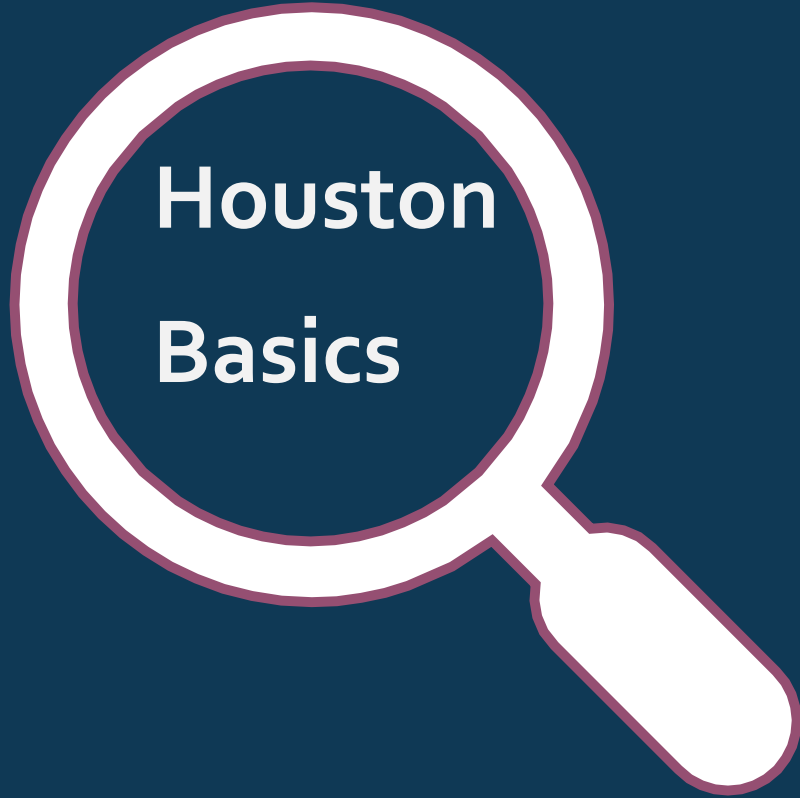


Plan Timeline, Where Are We Now

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Houston Background

Project Background



- ❑ Houston SWMD services nearly 400,000 households with solid waste services including garbage, recycling, yard waste, tree waste, junk waste collections and drop-off facilities.
- ❑ Currently the funding for Houston SWMD comes from the City's general fund and the program is underfunded.
- ❑ City owns three transfer stations that are privately operated
- ❑ Houston's solid waste ecosystem involves a mix of public and private operators
- ❑ Two-thirds of the material/waste generated comes from the non-residential sector.
- ❑ City relies 100% on private sector landfills for waste disposal.

Houston's Challenges

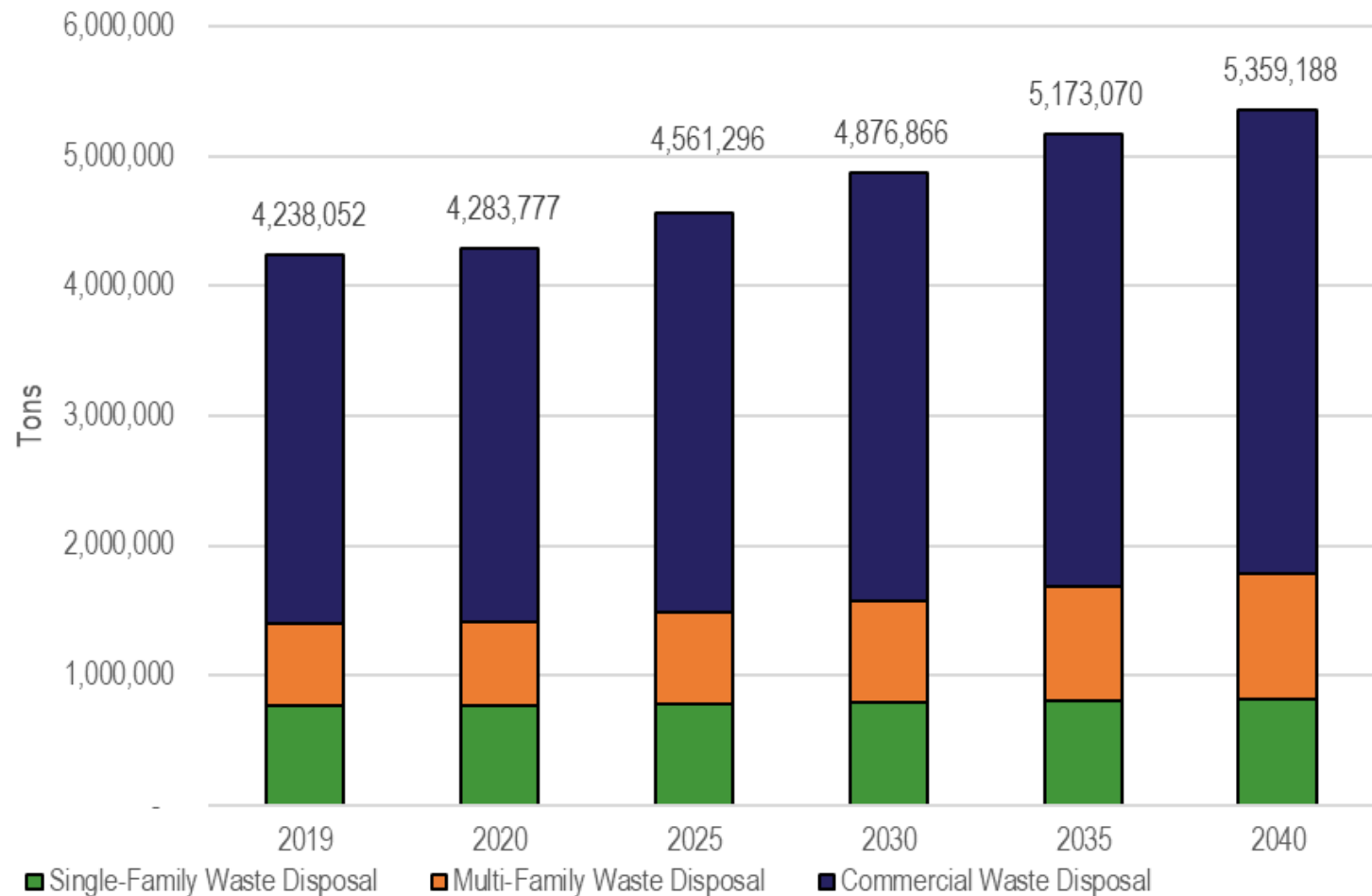
- ❑ Program funding impacts:
 - Currently required collection routes and staffing
 - Service growth to meet demand
 - Best practice equipment procurement
 - Customer engagement and education
 - Enforcement of Illegal dumping
- ❑ Multi-family waste management and disposal practices
- ❑ Greater participation by Commercial Sector is critically needed
- ❑ Disaster Response and Ongoing Storm Events
- ❑ Long-term landfill disposal capacity



Solid Waste and Material Management Highlights from Background Research

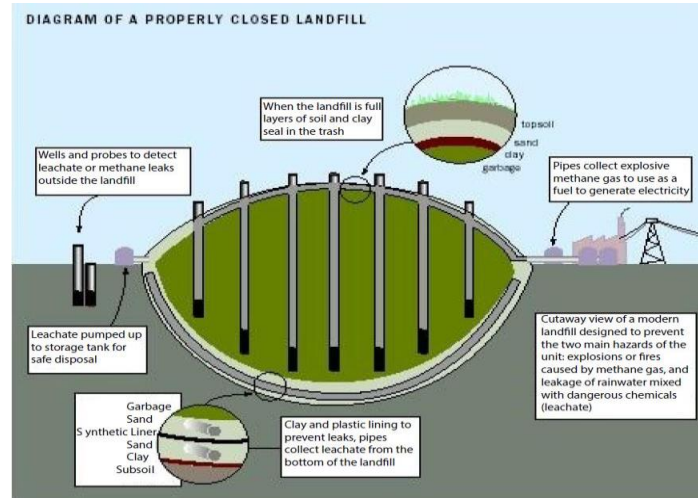
- ❑ Houston currently generates 4.3 million tons of waste, will increase to 5.4 million tons in 2040 at current rates.
- ❑ Approximately 2.0 million tons of material are diverted from the landfill due to City and private sector efforts (includes C&D recycling)
- ❑ Majority of this waste is from the commercial sector, including multi-family housing (80%)

Projected Waste Generation



Solid Waste Infrastructure is not just landfills

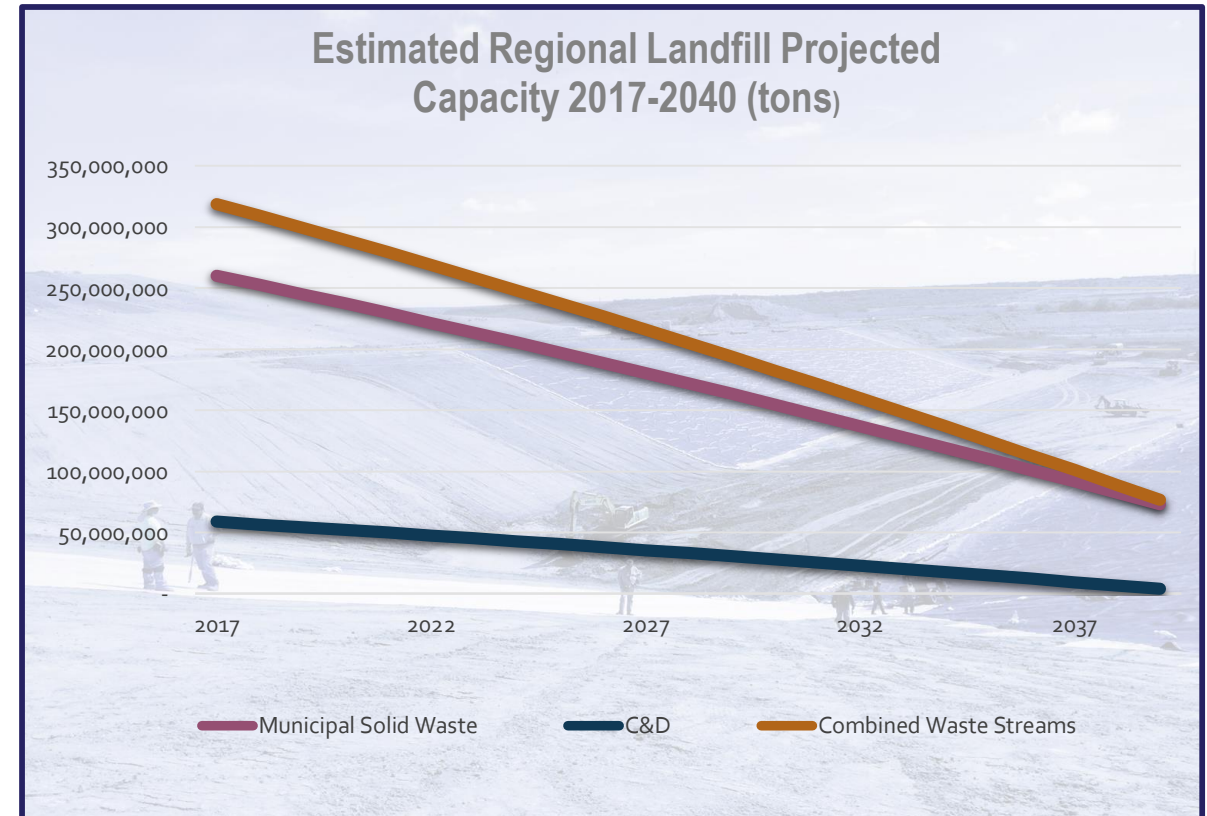
Waste management requires a variety of facilities to process and ultimately dispose of Houston's waste



Disposal capacity is critical to meeting future needs



- ❑ Majority of Houston waste is disposed in one of the 12 regional MSW landfills or 15 construction / demolition landfills
- ❑ Unless major expansions or new sites are permitted, the region's capacity will decrease from over 300 million cubic yards to under 100 million cubic yards by 2040. Current capacity is 37 years at current disposal rates; it will be less with increases in population & economic activity
- ❑ It takes 10 to 15 years to identify, permit and construct a new landfill





Goals & Action Plan



Sustainable Materials Management

- Increase reuse, recycling and organics diversion and decrease environmental risks of waste disposal in landfills. Make Houston a zero-waste community.



Quality Service

- Provide high quality services to the residents and businesses of Houston in a safe, equitable, responsive, and environmentally responsible manner with a customer service focus.



Infrastructure for Materials Management

- Ensure long-term disposal capacity and sustainable solid waste infrastructure.



Financial Sustainability

- Achieve sustainable funding through enterprise funding.



Beautiful City

- Address illegal dumping and litter to improve the quality of the of the Houston community, protect the environment and protect public health.

MATF Goals & Objectives

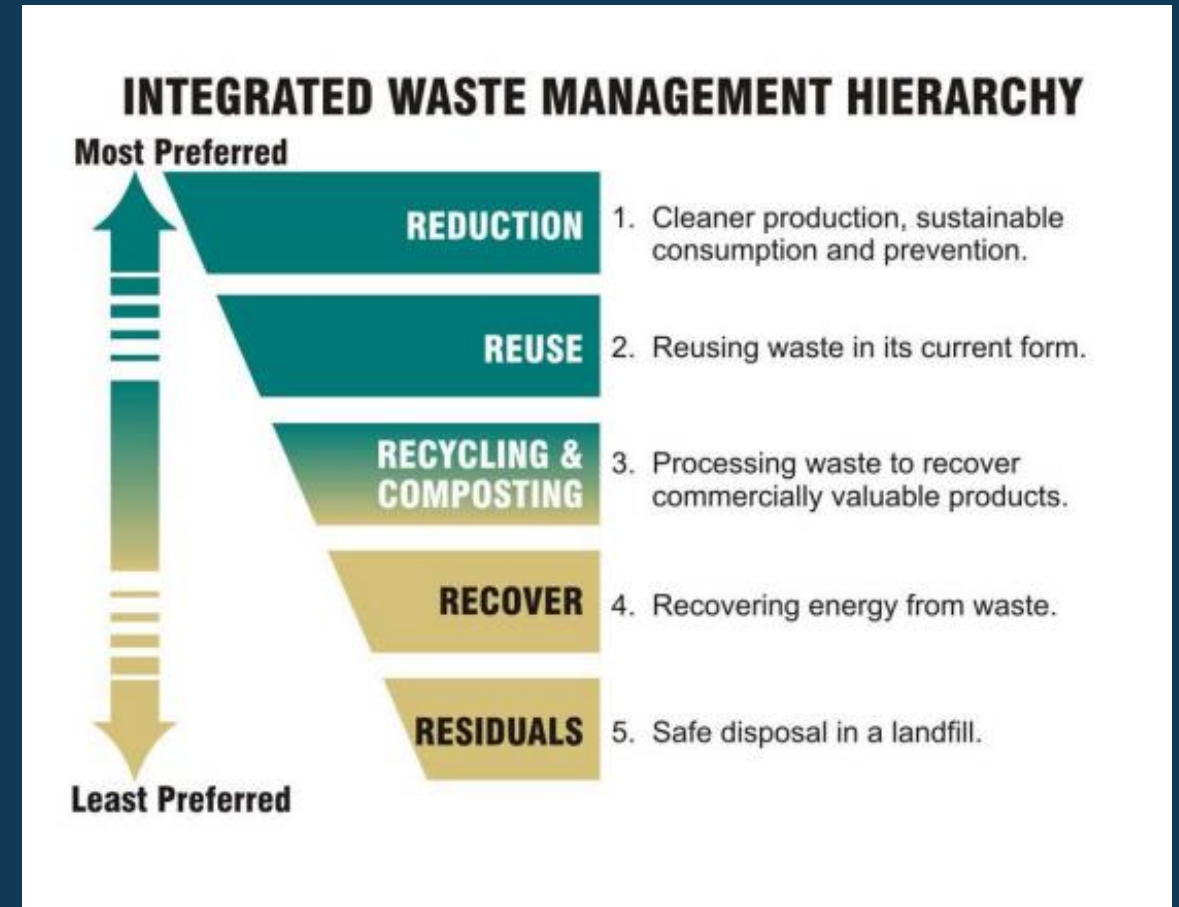
Sustainable Materials Management

Make Houston a Zero Waste Community

1

Current Issues

- ❑ Houston currently has programs that address curbside single-stream collection, drop-off collection, etc.
- ❑ Residential recycling has extremely high contamination rate.
- ❑ A significant amount of material is already being recovered and recycled by private sector.
- ❑ Opportunities include improving quality and quantity of curbside material, expanding efforts to divert commercially generated material, expand education for source reduction and recycling



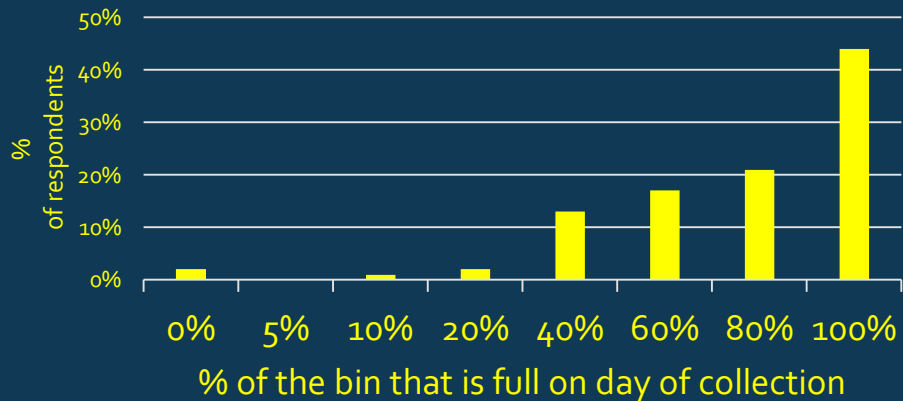
Source; US Environmental Protection Agency

Survey Results

How Houstonians Recycle

“Recycling is very important, but I think isn’t understood by people overall. People are unsure about what can go in the green bins...”

How full is your recycling container when it is time for collection?



86% place their carts out for recycling

90% state they are confident or somewhat confident that they are doing it correctly, in spite of 35% contamination level

67% say their green carts are over 80% full on collection day

27% use their food waste for backyard composting

68% of apartment residents do not have recycling available

60% say their workplace does not have a recycling program

Sustainable Materials Management – Path to Zero Waste

Plan recommendations



- Adopt climate action plan recommendations for residential reductions of 50% of residential material by 2040
- Enhance public information / public education programs.
- Enact measures to significantly reduce contamination in residential recycling program.
- Enhance multi-family recycling efforts. Initially through public information then mandatory programs.

- ❑ Enhance private sector source reduction and recycling efforts. Initially through public information then mandatory programs.
- ❑ Encourage greater food waste management through reduction, food donations and composting.
- ❑ Divert biosolids (sludge) to compost facilities.
- ❑ Improve data gathering and program evaluations

Sustainable Materials Management – Path to Zero Waste

- Plan key recommendations



Quality Service

Improve service, quality, and efficiency.

2

SWMD Current Services

- Garbage & Recycling as base services
- Monthly bulk waste collections (junk/green)
- Weekly yard waste collection
- Comprehensive Environmental Programming (HHW, Drop-off Sites)
- Re-use warehouse & Neighborhood Depository Sites
- Great waste disposal and recycling processing contracts and services
- Highly successful disaster management response
- Highly experienced executive leadership

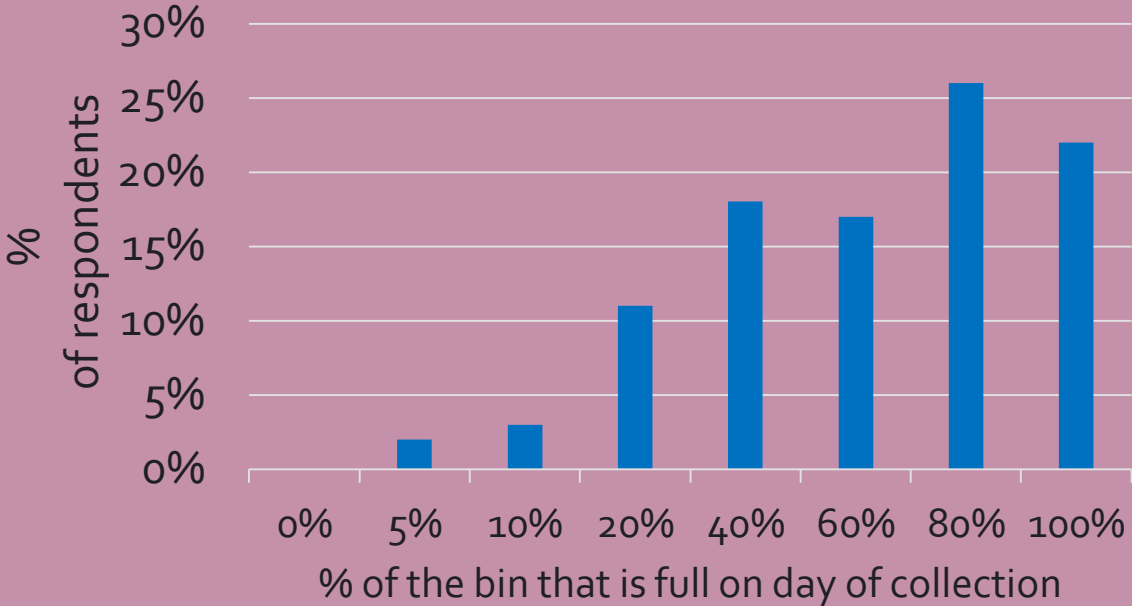


Survey Results

Public comments...

- “The City does a fantastic job with solid waste management.”
- “Ever since Hurricane Harvey solid waste services have been terribly inconsistent...”
- Over 85% of respondents were more than or somewhat satisfied with the City’s drop-off centers and Environmental Service Center

How full is your garbage cart container when it is time for collection?



Quality Service

Plan Recommendations



- ❑ Provide efficient collection of MSW and resources to all Houston residents.
- ❑ **Right-size operations** by expanding the fleet and staffing to meet citizen commitments.
- ❑ Modernize solid waste fleet.
- ❑ Expand the number of drop-off facilities and household hazardous waste collection services.
- ❑ Provide efficient, safe and responsive services in times of heavy storms or other disaster events.

Infrastructure for Materials Management

Ensure long-term disposal capacity and sustainable solid waste infrastructure.

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Future Solid Waste Infrastructure Needs

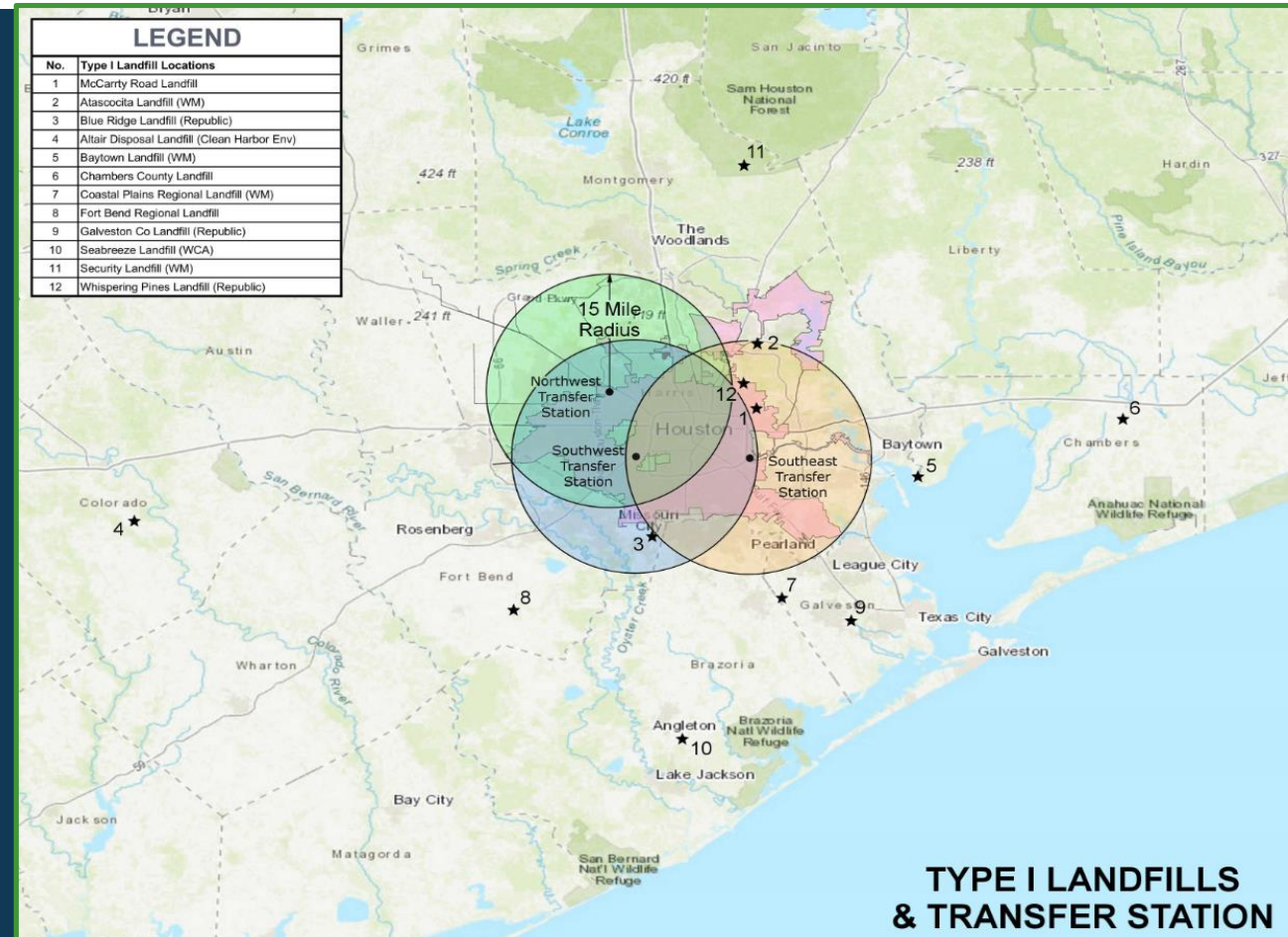
Houston Region has 12 MSW landfills and 15 C&D Landfills – capacity is decreasing annually

Houston Region has three transfer stations and is planning another

Houston's transfer stations are over 20 years old and in need of repair

As growth continues Houston and traffic conditions worsen, the City need more transfer capacity, etc.

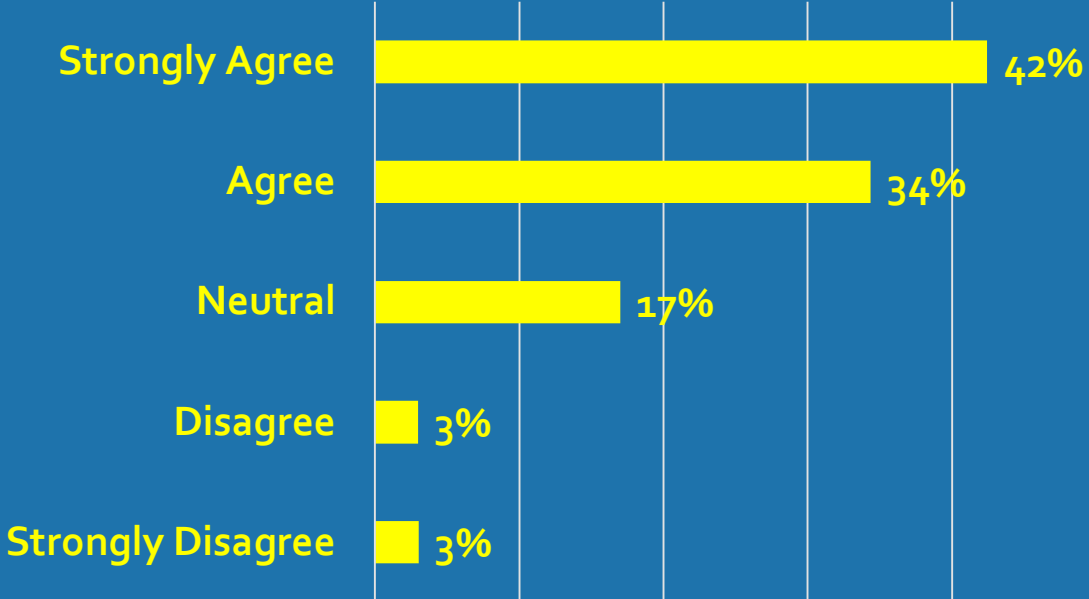
City owns other facilities including drop-off centers and MRF



Survey Results

Waste disposal (landfills) will be needed in the future and the City should proactively plan for future needed service.

City should proactively plan for a new landfill



Infrastructure for Material Management

Plan Recommendations

- ❑ Construct a new transfer station in NE Houston
- ❑ Invest in existing transfer stations
- ❑ Site & permit a new City-owned Landfill (may be operated publicly / privately)
- ❑ Evaluate closed facilities for brownfield development
- ❑ Evaluate rail haul as a long-term option for the City
- ❑ Track and evaluate resource recovery technologies for meeting the City's future waste management needs when technically and economically feasible.

Assuring Financial Sustainability

Houston needs more sustainable funding to be competitive with other cities and provide quality service to residents while expanding efforts towards sustainable materials management.

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Houston's Resources Compared to Other Cities

(fy 2020 budgets)

Houston's 2021 Budget request is \$88.978 Million

City	Houston	San Antonio	Dallas	Fort Worth	Austin
Households Served	390,435	356,000	245,000	225,049	200,550
FTEs	434	624	525	116*	462
Households Served Per FTE	893	570	466	NA*	434
Annual Budget (\$millions)	\$92.0	\$130	\$113.7	\$69.4	\$101.9
Budget \$ / HH	\$ 235	\$ 365	\$ 464	\$ 308	\$494

*does not include private haulers collecting waste / Dallas includes landfill operations

Solid Waste Fees for Other Cities

Ten Largest Cities in Texas Monthly Solid Waste User Fees

Rank	City ¹	Monthly Solid Waste User Fee ²	Monthly Environmental Fee	Monthly Cart Lease Fee	Enterprise Fund
1	Houston	\$ -	\$ -	\$1.14	No
2	San Antonio	26.76	2.24		Yes
3	Dallas	27.26	-		Yes
4	Austin	42.85	8.95		Yes
5	Fort Worth	22.75	0.50		Yes
6	El Paso	19.00	5.00		Yes
7	Arlington	14.94	-		No
8	Corpus Christi	16.91	-		No ³
9	Plano	16.10	-		Yes
10	Laredo	18.00	-		Yes

What would more sustainable funding provide?

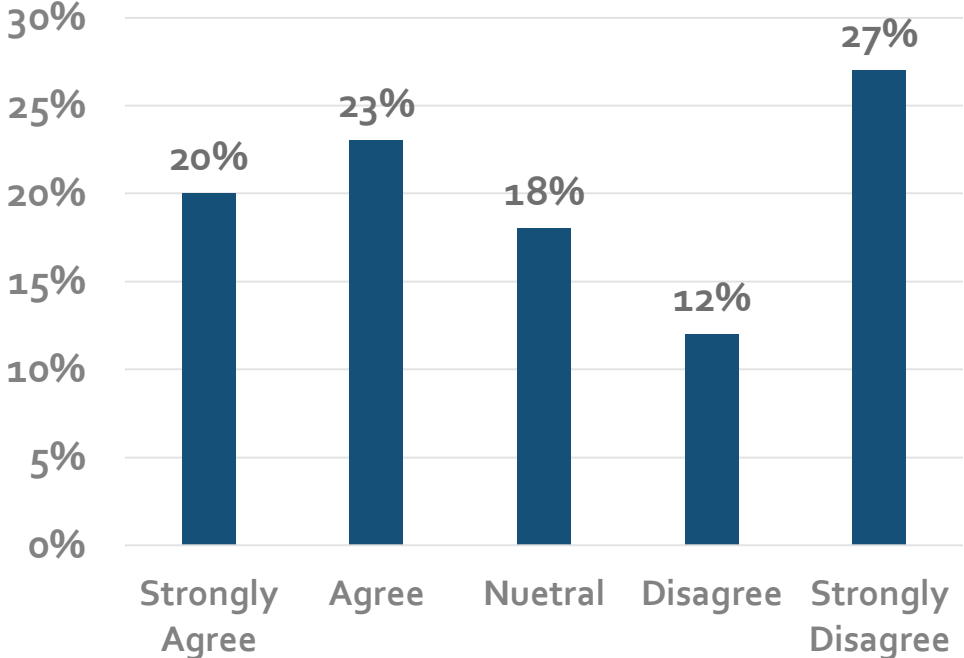
- Right-size collection's operations with necessary collections equipment and staffing: The City needs an additional 122 driver positions and 147 collections trucks which includes the necessary backups
- Increase the number of additional depositories needed – City has 6, however needs 5 more to meet demand and coverage of the expanse of the city footprint of 640 sq. miles
- Increase the number of inspectors needed to address illegal dumping enforcement in a more substantial way
- With proper service resources, customer service levels would be greatly enhanced
- Provide first class programs designed to reduce waste generation and improve quality of recycling programming



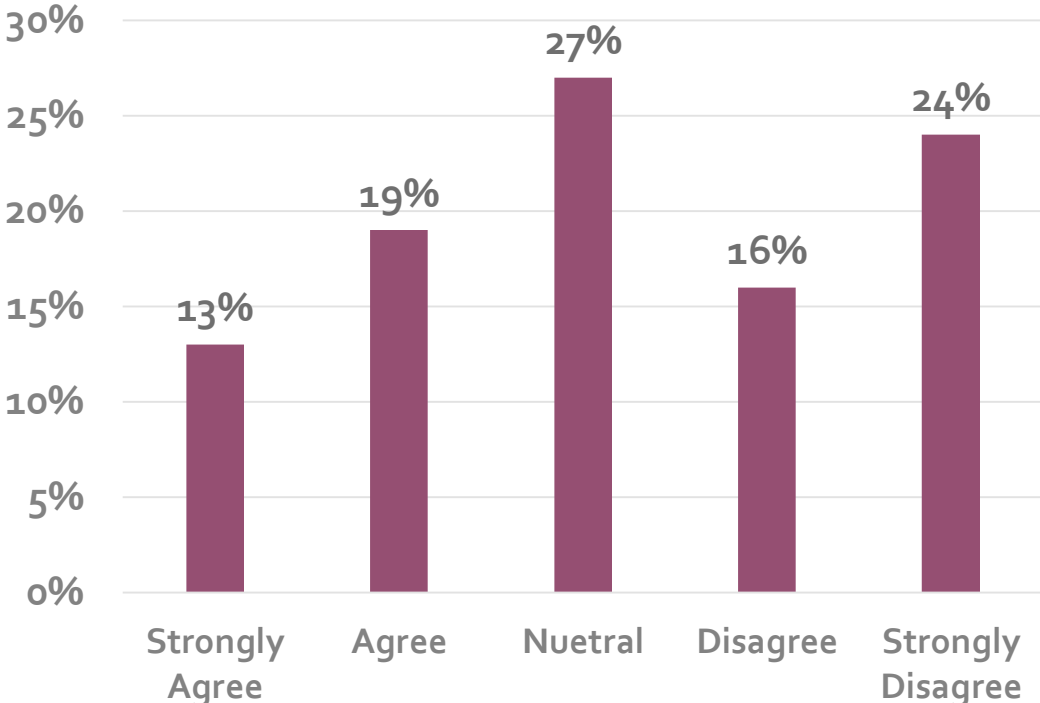
Survey Input

Support for a fee is a divided issue for Houston

Support fee for expansion and improvement of service



A Fee ensures that the system is properly sized and allows for growth



Goal: Financial Sustainability

Plan Recommendations



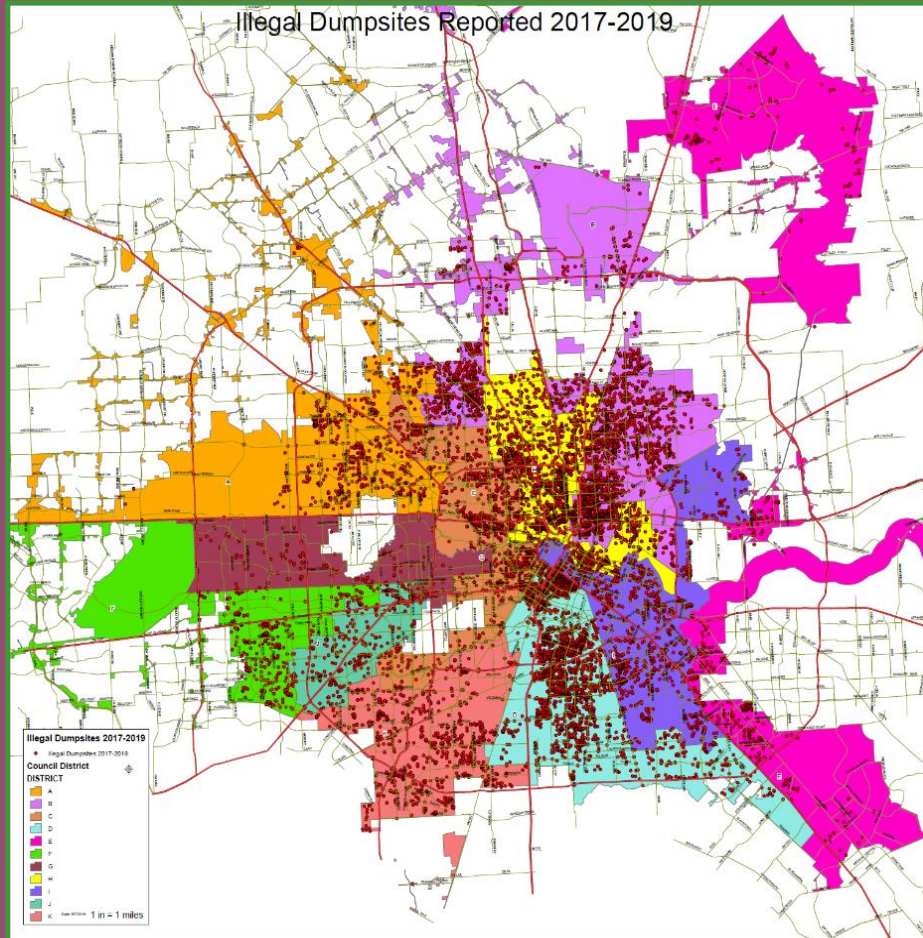
- ❑ Establish funding mechanisms that provide long-term financial sustainability for solid waste management needs. These funding mechanisms include monthly service fee; environmental fees for all sectors and grants.
- ❑ Secure alternative funding sources for paying for solid waste management strategies, including grants and partnerships.
- ❑ Provide services utilizing best management practices.
- ❑ Evaluate opportunities to provide financial assistance for low-income homeowners similar WATER program
- ❑ Evaluate opportunities for public / private partnerships

Clean & Beautiful City

Address illegal dumping and litter

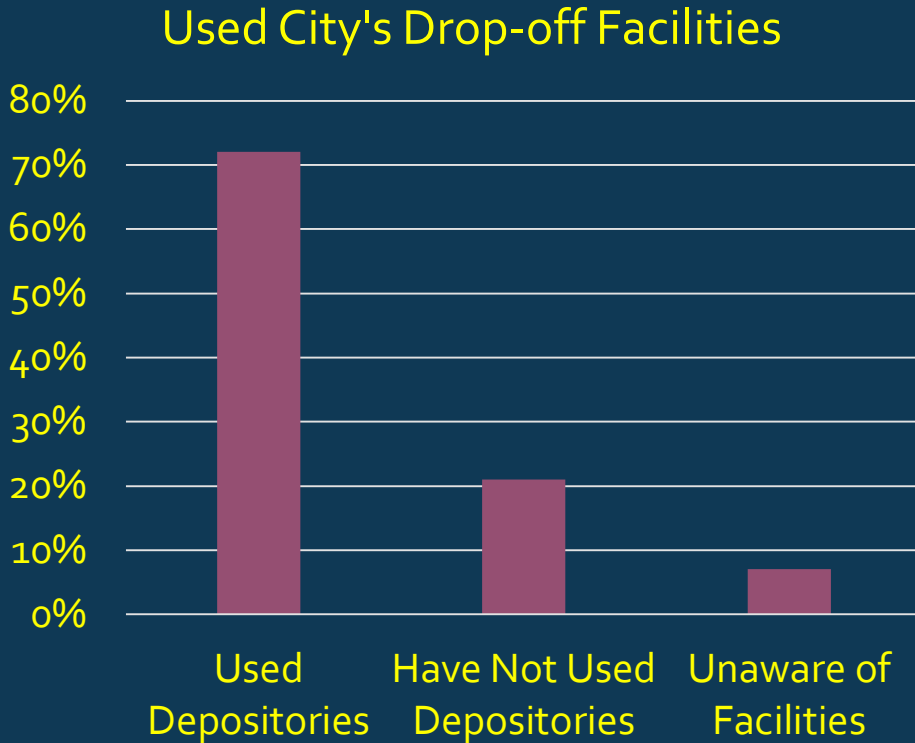
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Major Issues



- ❑ Increasing number of illegal dump sites
 - ❑ Insufficient number of drop-off sites to cover Houston's vast geographic area
 - ❑ Disposal costs are increasing
 - ❑ Lack of funding for both enforcement and clean-up of sites
-

Survey Results



93% of respondents felt it was important for the City to have an active anti-litter program.

Clean & Beautiful City

Plan Recommendations

- ❑ Reduce litter throughout the City, presenting a more beautiful and healthier Houston.
- ❑ Enhance efforts to reduce illegal dumping throughout the City.
- ❑ Increase number of drop-off centers and expand hours of operation
- ❑ More aggressive enforcement of illegal dumping laws.
- ❑ Improve communications among enforcement officials
- ❑ Continue to clean-up homeless encampments



The road ahead...

1. Financial sustainability
2. Rightsizing Service Operations
3. Establish best-practice fleet replacement schedule/model
4. Enhanced customer engagement/education
5. Initiate future waste disposal outlet(s) now
6. Strengthen transfer station infrastructure (NE, SW)
7. Multi-family and Commercial waste management reductions
8. Ongoing Council actions to implement programs and policies



Next Steps



Public comments



Review comments & incorporate into Plan



Final Plan to City Council for adoption



Future City Council Actions for implementation of Plan recommendations

How to provide comments

 We want to hear from you!



Houston Solid Waste Website
HoustonSolidWaste.org



Written Comments
longrange@houstontx.gov