Solid Waste Management Operations Update

Harry J. Hayes, Director
Overview

- Services Overview
- Customer Base
- Equipment
- Personnel
- Next Steps & Considerations
Services Overview

- Weekly Garbage
- Weekly Yard Waste
- Bi-weekly Recycling
- Bi-monthly Junk Waste
- Bi-monthly Tree Waste
- Citizen Drop off sites
- Household Hazardous Waste Collection
- Disaster Response & Recovery
## Services Per Year

### Solid Waste Program Update

<table>
<thead>
<tr>
<th>Service</th>
<th>Customers</th>
<th>Iteration</th>
<th>Count</th>
<th>Annual Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garbage</td>
<td>390,000</td>
<td>Weekly</td>
<td>52</td>
<td>20,280,000</td>
</tr>
<tr>
<td>Yard Waste</td>
<td>390,000</td>
<td>Weekly</td>
<td>52</td>
<td>20,280,000</td>
</tr>
<tr>
<td>Recycling</td>
<td>390,000</td>
<td>Bi-weekly</td>
<td>26</td>
<td>10,140,000</td>
</tr>
<tr>
<td>Tree Waste</td>
<td>390,000</td>
<td>Bi-Monthly</td>
<td>6</td>
<td>2,340,000</td>
</tr>
<tr>
<td>Junk Waste</td>
<td>390,000</td>
<td>Bi-Monthly</td>
<td>6</td>
<td>2,340,000</td>
</tr>
</tbody>
</table>

**Total Annual Visits:** 55,380,000
Customer Base

- Since June 2007, households serviced by the City of Houston has increased approximately 12%.
- Inner Loop 610 has shown the largest increase in customer growth.
- Route density inside the loop is an operations concern.

*2018 growth percentage is a conservative estimate extrapolated from the trend as reported Jan 2018 through June 2018.*
Number of Homes per SWMD Garbage Route

Average Route Size per Year

Solid Waste Program Update
- Equipment profile based on route size that is more than a decade old
- Equipment replacement schedule has been sporadic due to City’s strained finances
- Spikes and bumps in equipment replacement does not comport with fleet management best practices
- No sustained funding to keep operations and equipment “right-sized” to easily meet core needs
- Equipment is front line for disaster response/recovery operations, working throughout major disaster debris recovery operational periods
Equipment – Replacement

SWM Sideloaders
(by Model Year)

Data as of 12/19/18

Proposed Annual Replacement Quantity (25)

Purchases
Current Fleet

Solid Waste Program Update
# Equipment Replacement Backlog

## Needed Replacements

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>ASL</td>
<td>40</td>
<td>$11,079,200.00</td>
</tr>
<tr>
<td>Rear Steer</td>
<td>1</td>
<td>$183,374.00</td>
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<tr>
<td>Tractor Trk</td>
<td>36</td>
<td>$2,984,148.00</td>
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<tr>
<td>Trailer</td>
<td>30</td>
<td>$2,175,000.00</td>
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<tr>
<td>Rearloader</td>
<td>30</td>
<td>$5,449,830.00</td>
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<tr>
<td>Roll-off</td>
<td>6</td>
<td>$850,116.00</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>143</strong></td>
<td><strong>$22,721,668.00</strong></td>
</tr>
</tbody>
</table>

### Solid Waste Program Update
Equipment - Rightsizing

- Current operations need to meet optimal equipment standard:
  - Maximize customer service
  - Maximize preventive maintenance
  - Minimize overtime and excessive wear and tear
  - Maximize readiness for disaster recovery and response

- Requires 120 pieces of equipment at cost of more than $18.0 million
## Operational Rightsize Needs

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Cost ea</th>
<th>Need</th>
<th>Incremental $</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL Garbage</td>
<td>$276,980</td>
<td>18</td>
<td>$4,985,640</td>
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<tr>
<td>ASL Recycle</td>
<td>$276,980</td>
<td>9</td>
<td>$2,492,820</td>
</tr>
<tr>
<td>Rear Steer (JW)</td>
<td>$183,374</td>
<td>14</td>
<td>$2,567,236</td>
</tr>
<tr>
<td>Tractor (JW)</td>
<td>$82,893</td>
<td>28</td>
<td>$2,321,004</td>
</tr>
<tr>
<td>Trailer (JW)</td>
<td>$72,500</td>
<td>28</td>
<td>$2,030,000</td>
</tr>
<tr>
<td>Rearloader (YW)</td>
<td>$181,661</td>
<td>10</td>
<td>$1,816,610</td>
</tr>
<tr>
<td>Roll-Off (NDS)</td>
<td>$141,868</td>
<td>13</td>
<td>$1,844,284</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>120</strong></td>
<td></td>
<td><strong>$18,057,594</strong></td>
</tr>
</tbody>
</table>

**Solid Waste Program Update**
Personnel

- CDL Drivers and Mechanics in high demand
- Wal-Mart recently announced paying nearly $90,000 per year salaries.
History of Solid Waste Planning

- **1988**: Solid Waste Department published a 20 year plan for Houston Solid Waste services
- **1990**: Mayor Kathy Whitmire commissioned the Citizens Advisory Committee on Solid Waste Disposal Solutions. The City also contracted with HDR and Epsilon Engineering to guide the committee and write the report/plan
- **2005**: Mayor Bill White commissioned the Solid Waste Task Force to review Houston’s solid waste management programs and services. The study was led by Controller Annise Parker and Sanifill CEO Lorne Bain
- **2016**: Mayor Sylvester Turner authorized procuring services for a comprehensive Long Range (or Zero Waste) Plan to guide the city’s decisions for the next several years. Procurement approved by council in 2017; system analysis and plan development currently underway
Next Steps

- Continue receipt of purchased equipment through the summer
- Ready department for upcoming storm season
- Work with HR and Finance on competitive salaries for key operations personnel
- Continue full-court press on hiring operators and mechanics.
- Take up PFM recommendations towards outsourcing areas of the city that support right-sized service level
- Update sponsorship agreement to reflect the city’s planning/budgeting cycles
Considerations

- Current 5 year forecast projects financial shortfalls each budget year
- Be mindful of disaster response and recovery readiness as the city has had 3 of the past 4 years with a major disaster
Questions?