Single Stream Recycling in Philadelphia

Streets Commissioner Clarena I.W. Tolson
United States Conference of Mayors
Webinar Presentation
June 28, 2012
Sanitation Division

• The Philadelphia Streets Department’s Sanitation Division provides curbside trash and recycling services to approximately 540,000 households throughout the City.

• The Division deploys about 140 compactor trucks for trash collection and about 70 compactor trucks for recycling collections.

• The Division uses various sizes of trucks to manage a complex collection environment: 10, 20, 20 high density and 25 high density compactor trucks.

• Collections operations are organized by 6 Sanitation Areas and 13 Districts.
Challenges Unique to Philadelphia

- Many cities use carts or wheeled trash cans for recycling.
- Due to narrow streets and alleys, carts were not a viable option. Residents are supplied with a 20 gallon bin.
- The Division uses 3 person crews collecting both sides at the same time.
Why Implement Single Stream Recycling in Philadelphia?

• Increases crew productivity:
  – Dual streams collections averaged 4 tons/truck/day
  – Single Stream collections averaged 8 to 10 tons/truck/day

• Recycling tonnage increased by 25% by going from dual-stream to single stream.

• The City experienced another increase when it went from bi-weekly to weekly single stream collections.
Single Stream Challenges

• Sanitation Fleet was not equipped to handle single stream.

• Finding a vendor with the capacity to implement single stream.

• Educating the public/Simplifying the system for residents. Despite the support for single stream recycling, the system was complicated.
Conversion of recycling collection fleet

• The switch to single stream required high density compactor trucks.

• The fleet also had to be expanded to accommodate weekly service.
Average Daily Deployment

- Average crews per day is shown below. The fleet currently stands at 81 dedicated recycling vehicles, mostly 20HD and 25 HD.
- There are 15 of the small 9,10,11 and 12 yarders.

### Average Daily Crew Deployment

<table>
<thead>
<tr>
<th>Year</th>
<th>Deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY12</td>
<td>71</td>
</tr>
<tr>
<td>FY11</td>
<td>68</td>
</tr>
<tr>
<td>FY10</td>
<td>57</td>
</tr>
<tr>
<td>FY9</td>
<td>51</td>
</tr>
<tr>
<td>FY8</td>
<td>46</td>
</tr>
<tr>
<td>FY7</td>
<td>37</td>
</tr>
<tr>
<td>FY6</td>
<td>35</td>
</tr>
</tbody>
</table>
Alternating Weekly Schedule

CITY OF PHILADELPHIA
DEPARTMENT OF STREETS
SANITATION DISTRICTS AND RECYCLING COLLECTION DAYS

RECYCLING DAYS
Green Week:
- MONDAY
- TUESDAY
- WEDNESDAY
- THURSDAY
- FRIDAY

Blue Week:
- MONDAY
- TUESDAY
- WEDNESDAY
- THURSDAY
- FRIDAY

Weekly:
- MONDAY
- TUESDAY
- WEDNESDAY
- THURSDAY
- FRIDAY
Financing

- The Nutter Administration committed substantial resources to improve the recycling rate in the City.

- The Philadelphia Streets Department bought 10 surplus trucks for single-stream pickup using a $1.5M grant from the State of Pennsylvania Department of Environmental Protection.

- In 2008, the City committed to give the Streets Department $4M for new compactor trucks.
<table>
<thead>
<tr>
<th></th>
<th>Total Revenue</th>
<th>Diversion Rate</th>
<th>Total Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY12 (projected)</td>
<td>$6,000,000</td>
<td>20.0%</td>
<td>122,000</td>
</tr>
<tr>
<td>FY11</td>
<td>$5,349,451</td>
<td>19.0%</td>
<td>115,078</td>
</tr>
<tr>
<td>FY10</td>
<td>$413,871</td>
<td>15.7%</td>
<td>99,445</td>
</tr>
<tr>
<td>FY9</td>
<td>$108,304</td>
<td>12.4%</td>
<td>75,084</td>
</tr>
<tr>
<td>FY8</td>
<td>$1,082,611</td>
<td>8.4%</td>
<td>51,427</td>
</tr>
<tr>
<td>FY7</td>
<td>$1,236,890</td>
<td>7.1%</td>
<td>46,447</td>
</tr>
<tr>
<td>FY6</td>
<td>$1,226,408</td>
<td>6.3%</td>
<td>44,766</td>
</tr>
</tbody>
</table>

**8.4% Diversion**

**20% Diversion**

**CITY OF PHILADELPHIA**

**DEPARTMENT OF STREET**

*Recycling Diversion Rate - Fiscal Year 2010*

(Citywide Collections Only)

**CITY OF PHILADELPHIA**

**DEPARTMENT OF STREET**

*Recycling Diversion Rate - Second Quarter Year to Date*

(Fiscal Year 2011)
Material Processing cost/revenue
If you have any questions, please feel free to contact me:

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