Jurisdiction Supported Composting Efforts:
Arlington County’s Experience

George Washington Regional Commission
Best Practices and Opportunities & Conference

August 21, 2018

Phil Bresee, Chief, Environmental Management Office, Arlington County Solid Waste Bureau
About Arlington County

- Land area = 26.2 miles
- Population = 225,200
- Households = 106,300
  - 33,200 single-family
- 224,400 at-place employees each day
- Large federal government presence - Defense Dept., TSA, DEA
- High educational attainment and income:
  - 74% adults over the age of 25 with BS/BA or higher; 39% hold graduate or professional degrees
  - $110,400 per household & $88,000 per capita incomes
  - Average home value $636,200

Source: Profile 2018, Arlington County Planning Division
Arlington County Solid Waste Bureau

- Provides weekly curbside recycling, yard waste and trash collections to 33,200 homes
  - Household solid waste rate = $316.16 per year
- On-call collection fee-based services for E-waste, scrap metals and bulk appliances (contracted)
- Manage multi-family & commercial recycling programs and code enforcement
- Education and outreach support for all programs
- HHM drop-off events
- Mulch pickup & on-call mulch delivery
- Services two citizens’ drop-off centers
- Operates Earth Products Recycling Yard
- Zero Waste goal for 2038
Recycling & Diversion Rate (2017)

Solid Waste as Managed in Arlington 2017 *

- Recycled/Diverted: 49%
- Disposed: 51%

Sector-based recycling/diversion rates:
- Residential = ~60%
- Commercial = ~41%

*Includes 5% DEQ credits
Recycling & Diversion Rates 2006-15

- Leveling off or slight decrease in diversion rates since 2010
- Residential MSW stream changes (light-weighting, less paper, etc.)
- Commercial sector reporting challenges

*Includes 5% DEQ credits
Seasonal Leaf Collections

Leaf Season:
- Bag collection (weekly)
  November-January
- Vacuum Collection (2 passes)
  November-December

2015 Tonnages:
- 659 bagged materials
- 552 vacuum
Brush Collection

- On-call service (paid as part of HSWR)
- Performed by SWB crews
- 5,372 tons in 2015 from 18,000 service requests
- Processed at SWB Earth Products Recycling Yard
ISO Opportunities to Increase Recycling

- Just ~13% of residential MSW made up of blue-cart program materials.
- Need to target other fractions of waste stream to increase diversion.
- Yard waste = top target.
Opportunities & Approach

• Residential collection services contracts rebid in 2014 - yard waste collection pricing sought through RFP
• Pricing from successful proposer (American Disposal Services):
  – Yard waste collections at $2.83/HH/month
  – Carts financed through ADS contract ($11.40 per cart per year; $1.43 per HH per year maintenance
  – FY 2016 impact of $33.96 on HSWR
  – Food scraps collection option pricing ($5 per HH/year)
• County Board approval in November, 2015
• Processing contract with Loudoun Composting for $32 per ton
Asking the Customer

• In 2015 County surveyed HSWR customers via Survey Monkey:
  – 31,033 customers
  – 4,283 total respondents (evenly spread across County)
  – 70% of respondents indicated increasing recycling rate was important
  – 60% supported adding yard waste collections

• Made it easier for County Board to approve program
Getting the Word Out

✓ Local press
✓ Direct mail to ratepayers
✓ County website
✓ Direct mail to landscapers & lawn service providers
✓ February – April: carts distribution
✓ February – April: Social media

YEAR-ROUND YARD WASTE COLLECTION

The County Board approved year-round yard waste collection. Here’s a quick reference to remember four easy ways to dispose of yard waste materials.

1. CARTS: Place small yard waste in your county provided green, yard waste cart.

2. BAGS: An alternative to your cart. Place small yard waste in county provided or permanently purchased biodegradable bags.

3. BUNDLES: Small branches and limbs less than four feet long can be bundled, tied and placed at the curb.

4. SPECIAL REQUEST: Limbs longer than four feet may be scheduled for free unbound brush collection.

YEAR-ROUND YARD WASTE IS COMING!

April 1, 2016

*Starting with Spring Yard Waste Collection on March 4, 2016*
Results Are In!

- 7,242 tons of yard waste collected in FY 2017
- 8,397 tons in FY 2018
- Yard waste now accounts for just 2% of residential MSW
- Food waste now largest single component
### Residential Tonnage Trends

#### Materials Stream FY 2018 Tons Gen./HH (in lbs.)

<table>
<thead>
<tr>
<th>Stream</th>
<th>Tons</th>
<th>Gen./HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trash</td>
<td>26,788</td>
<td>1,614 lbs.</td>
</tr>
<tr>
<td>Recyclables</td>
<td>13,562</td>
<td>817 lbs.</td>
</tr>
<tr>
<td>Yard trimmings</td>
<td>14,462</td>
<td>871 lbs.</td>
</tr>
<tr>
<td>Other (e-scrap, metals, etc.)</td>
<td>158</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>54,970</td>
<td>3,311 lbs.</td>
</tr>
</tbody>
</table>
- Three-acre site supports residential & County operations
- Winner of 2015 SWANA Excellence Award
- Mulch meets USCC’s Seal of Testing Assurance

<table>
<thead>
<tr>
<th>Material Disposed</th>
<th>Resulting Processed Material</th>
<th>Final Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaves</td>
<td>Leaf Mulch</td>
<td>Delivered or picked up for residential use; utilized in County landscaping projects</td>
</tr>
<tr>
<td>Brush Material</td>
<td>Brush Mulch</td>
<td>Delivered or picked up for residential use; utilized in County landscaping projects</td>
</tr>
<tr>
<td>Christmas Trees</td>
<td>Wood chips, mulch</td>
<td>Delivered or picked up for residential use; utilized in County landscaping projects</td>
</tr>
<tr>
<td>Inert Materials: Concrete, asphalt, brick, etc.</td>
<td>Various grades of crushed aggregate</td>
<td>Primarily used by the Water, Sewer and Streets Bureau for County projects</td>
</tr>
<tr>
<td>Inert Materials: Dirt</td>
<td>Clean dirt; crushed aggregate</td>
<td>Screened aggregate used by the Water, Sewer and Streets Bureau; clean dirt used for top soil production</td>
</tr>
<tr>
<td>Scrap Metal</td>
<td>Scrap metal hauled to local recycler</td>
<td>Raw material created for use in manufacturing</td>
</tr>
</tbody>
</table>
Closing our own Loop at the EPRY

FY 2018 processing included:
- 4,326 tons of brush
- 6,263 tons of asphalt & concrete
- 5,862 tons of leaves
Food Waste: The Next Frontier

- Success of yard trimmings collection program supports future food scraps collection program
- SWB purchased in-vessel composting machine in 2016
- Utilized for:
  - Special events
  - School cafeterias
  - Farmers Markets
  - Public drop-off
**Food Waste: The Next Frontier**

- In-vessel composter processed 32,000 lbs. in FY 2018

<table>
<thead>
<tr>
<th>Event/Stream</th>
<th>FY 2018 Lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop-off</td>
<td>9,068</td>
</tr>
<tr>
<td>Employee Break Room</td>
<td>795</td>
</tr>
<tr>
<td>Special Events</td>
<td>6,847</td>
</tr>
<tr>
<td>Waste audits</td>
<td>280</td>
</tr>
<tr>
<td>Food bank</td>
<td>11,404</td>
</tr>
<tr>
<td>Farmers Markets</td>
<td>2,313</td>
</tr>
<tr>
<td>Abingdon ES</td>
<td>1,095</td>
</tr>
</tbody>
</table>
• Digital media and changes in packaging = fewer traditional curbside recyclables available for recycling
• Organics more attractive target for increasing recycling rates…
Next Steps?

• Success of yard waste program pushing up consideration of food waste collection

• 2017 ratepayer survey results:
  – 74% yes
  – 26% no

• Processing infrastructure & capacity key

• Consideration of other program costs (in-home pails, bags, etc.)

• Food scraps could add 6-8% to residential diversion rate

• FY 2020 shaping up to be an austere budget
Thank You & Questions!

Pbresee@arlingtonva.us