Bio-Orb days

= Empowerment

John and Deb Aguzino
Defining the Problem

- On average, a college student throws away 0.234 lbs of waste per meal (Western Michigan University, 2012; Recycling Works, 2015).
- 315 meals a semester
- Over the course of a 15-week semester, that’s 73.71 pounds WASTED per student.
Small-scale, incremental change works.

- Waste Reduction
  - Sustainable DC: 80% waste diversion rate by 2032
- Back-End Solution
  - Initiative is focused on waste diversion within realm of food recovery
Who are we?

“We’re not the GW Compost; we’re The Washington Compost. We want to be a force for good and educate people—our peers, students outside of Foggy Bottom, DCPS—about tangible ways to better our environment.”

- Student Advocates and Peer Educators
- Invest in residential composting initiative and educate students around the climate impact of food waste.
  - Implemented through residence halls through Washington D.C. and later, possible expansion to DCPS
Overview

- MISSION: Focus on EPA’s main priority, **Source Reduction**, by investing in existing infrastructure for DC universities regarding waste education and in turn, other partnerships on organic waste diversion.
Prototype—Hensley Hall

February-May 2015
40 Students
Pilot Results

- 94% participation (optional)
- In 8 week pilot, contamination fell to 0%.
  - Identifying and correcting waste behaviors
- Teaching students, creating infrastructure
  - Diverse student body, part of community
- Civic engagement
## Scaling It Up

- Assuming 2 students/room (overestimation)
- Approximately $5 per student
  - Can be cleaned and reused

### GW Expansion Estimates

<table>
<thead>
<tr>
<th>Residence Hall</th>
<th># of Residents</th>
<th>Total Cost of Bins B4 (Previous)</th>
<th>Reduced Rate - B3</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.63 Residence Hall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$21.39 Hensley</td>
<td>40</td>
<td>$534.73</td>
<td>$240.75 (Already Purchased)</td>
</tr>
<tr>
<td>Cole</td>
<td>40</td>
<td>$534.73</td>
<td>$240.75</td>
</tr>
<tr>
<td>Merriweather</td>
<td>45</td>
<td>$588.21</td>
<td>$264.83</td>
</tr>
<tr>
<td>Clark</td>
<td>40</td>
<td>$534.73</td>
<td>$240.75</td>
</tr>
<tr>
<td>Hillside</td>
<td></td>
<td>$2,192.40</td>
<td>$987.08</td>
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<tr>
<td>Somers</td>
<td>246</td>
<td>$2,737.83</td>
<td>$1,232.64</td>
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<tr>
<td>Hillside+Somers</td>
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<td>$4,930.23</td>
<td>$2,219.72</td>
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<tr>
<td>West</td>
<td>287</td>
<td>$3,176.31</td>
<td>$1,430.06</td>
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<tr>
<td>The Vern</td>
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<td>$8,106.54</td>
<td>$3,649.77</td>
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<tr>
<td>Lafayette</td>
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<td>$1,454.47</td>
<td>$654.84</td>
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<tr>
<td>Madison</td>
<td>248</td>
<td>$2,759.22</td>
<td>$1,242.27</td>
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<tr>
<td>Mad+Laf</td>
<td></td>
<td>$4,213.69</td>
<td>$1,897.11</td>
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</tbody>
</table>

**Total**

- $11,785.50
- $5,306.13
DC College and Universities Sustainability Pledge (2012)
On-Campus Residence Breakdown

Trinity Washington University: 74%, 1,554 on-campus students
University of the District of Columbia: mainly commuter
Campus Cooperation

Opportunity for partnership with campus zero-waste leader American University

Coalition supports open source system

<table>
<thead>
<tr>
<th>University</th>
<th># of On-Campus Residents</th>
<th>Total Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgetown</td>
<td>11,429</td>
<td>$55,512.14</td>
</tr>
<tr>
<td>Catholic</td>
<td>4,034</td>
<td>$19,616.31</td>
</tr>
<tr>
<td>Trinity Washington</td>
<td>1,554</td>
<td>$7,578.81</td>
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<tr>
<td>Gallaudet</td>
<td>1,406</td>
<td>$6,962.49</td>
</tr>
<tr>
<td>Howard</td>
<td>2,877</td>
<td>$14,045.36</td>
</tr>
</tbody>
</table>
Tipping Fee:
$50/ton of food waste
Approx. $2/per student per semester

Every student: $16 over the course of their academic career
Compost Alternative

$0.61 per student per semester

- Calculated return on investment: as little as 7.89 semesters
Civic Engagement and Public Service

- DC Universities: 625,000 hours (2014)
Current problem: Significant amounts of food waste in college residence halls

Solution: Invest in residential composting initiative and educate students around the climate impact of food waste.

- **Average $5** per student (w/corporate sponsorship and city investment, less)
- Return on investment in **less than 4 years**
- People like it
- Inter-Campus Partnerships—follow up on existing commitment and supports open-source
- Civic engagement, the next generation
Questions?