GreenWrench Expansion Project

Clara Elias
Pollution Prevention Coordinator
Stormwater from 2/3 of the District’s auto shops drain to this outfall with little to no treatment.
Automotive Repair shops are Critical Sources of Pollution
Why Was GreenWrench Created?

1. Unified Guidance from DOEE
   a) Environmental Services (air and toxics)
   b) Natural Resources (stormwater)
   c) Urban Sustainability
   d) Energy

2. Provide tools and resources to educate and motivate auto shops

3. Funding from the EPA
EPA Funding

1. 2016-2019: Source Reduction Assistance grant
   • 2 years with 6 month extension and additional funding
   • Develop market strategy
   • Pilot and launch program

2. 2018-2020: Pollution Prevention Grant
   • 2 year grant to expand program
   • Goals: continuity of service, shift culture, and promote use of safer chemical products
Target Audience

- Auto body and repair shops
- Businesses, universities, government, and others
- Small, medium, and large facilities
- Stationary or mobile
Approach

Community-based social marketing

Achieve sustainable behavior with an approach that uses psychology and social marketing
Market Research
Survey

24 conducted in English, Spanish, and Amharic

1. Cold calls
2. Email with digital survey
3. Follow up phone calls after e-mail
4. Pre-scheduled phone calls

In-person

<table>
<thead>
<tr>
<th>Method</th>
<th># Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Calls</td>
<td>10</td>
</tr>
<tr>
<td>In-Person</td>
<td>14</td>
</tr>
<tr>
<td>Online</td>
<td>0</td>
</tr>
</tbody>
</table>
1. Does knowing that your storm drains flow directly to the Anacostia River affect how you think about your work?
   - 48% Yes
   - 52% No

2. Are environmental regulations clear and easy to understand?
   - 83% Yes
   - 17% No

3. How much do environmental impacts factor into your business decision-making?
   - Most of the Time: 91%
   - Some of the Time: 48%
   - Not a factor: 10%
Results

What would encourage you to participate?

- Save money
- Compliance Assistance
- Attract more customers
- Become more sustainable
- Recognition
- How-to Skills
- Not interested

What would prevent you from participating?

- Too Much Money
- Too Much Time
- Don't Need Help
- Nothing
- Other
Outreach Strategy

1. **Advertise the Program**: meet people where they are and follow up with high-touch techniques
2. **Engage the Shops**: sell incentives and translate materials
3. **Encourage Compliance**
4. **Evaluate and Repeat**

**Pie Chart Breakdown**
- Onsite Technical Assistance (12)
- Certification (9)
- Free trainings (7)
- Workshops (6)
- Newsletters with case studies (6)
Language

- Save money
- Receive onsite consultations and training
- Protect yourself from harmful substances
- Fits into your schedule
- Attract customers

Languages
- English
- Spanish (Español)
- Amharic (አማርኛ)

Free to all registered participants
## CBSM Strategies

<table>
<thead>
<tr>
<th>Key Strategies</th>
<th>Program Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Commitment</td>
<td>- Certification</td>
</tr>
<tr>
<td>2. Prompts</td>
<td>- Poster of BMPs</td>
</tr>
<tr>
<td>3. Social Norms</td>
<td>- Case studies</td>
</tr>
<tr>
<td>4. Communication</td>
<td>- Newsletter, Workshop</td>
</tr>
<tr>
<td>5. Incentives</td>
<td>- Money, recognition</td>
</tr>
<tr>
<td>6. Social Diffusion</td>
<td>- Multiple shops</td>
</tr>
<tr>
<td>7. Convenience</td>
<td>- Onsite assistance</td>
</tr>
</tbody>
</table>
Measuring Success

GreenWrench collects information to assess how effective the program is at reducing pollution

- Lbs hazardous materials
- MTCO2e
- Gal water
- $$
Roughly 9 Months Recruiting

- 70+ shops recruited in-person
- 20 facilities registered
- 2 workshops with about 25 attendees each
- Distrust of program
  - Free
  - Data collection
  - Owners vs. managers
Program Expansion

1. Continue GreenWrench
   • In-person visits to develop relationships and provide assistance
   • Measure program impacts
   • GreenWrench certification

2. Train students, who are studying to be mechanics

3. Encourage use of safer chemicals by having shops try out products
Safer Chemical Alternatives

Provide products to shops to test

- Safer for the environment
- Safer for human health
# Project Activities, Outputs, & Deliverables

<table>
<thead>
<tr>
<th>Activity</th>
<th>Outputs</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Budget</strong></td>
<td>1. A report on hours that employees and students spend on GreenWrench</td>
<td>1. Documentation of the number of hours</td>
</tr>
<tr>
<td><strong>Technical assistance</strong></td>
<td>1. New shops participate in the program</td>
<td>2. List of “partners”</td>
</tr>
<tr>
<td></td>
<td>2. Site visits</td>
<td>3. Shop-specific P2 Plans for participating shops</td>
</tr>
<tr>
<td></td>
<td>3. Data on pollution reduced and money saved</td>
<td>4. Log that tracks the number and duration of onsite visits</td>
</tr>
<tr>
<td></td>
<td>4. 3-5 case studies</td>
<td>5. Data on the amount of pollution reduced and money saved</td>
</tr>
<tr>
<td><strong>Certification program</strong></td>
<td>5. Shops are certified</td>
<td>6. Analysis of data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. 3-5 case studies</td>
</tr>
</tbody>
</table>
# Project Activities, Outputs, & Deliverables

<table>
<thead>
<tr>
<th>Activity</th>
<th>Outputs</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educate Mechanic Students</td>
<td>6. Workshops or presentations for 200 students, with pre- and post-questionnaires</td>
<td>10. curriculum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11. Pre and post questionnaire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12. Sign-in sheets and completed pre/post surveys</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13. Feedback on safer chemical products by participating shops</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14. Report summarizing feedback, potential environmental benefits, and costs or cost savings</td>
</tr>
<tr>
<td>Safer Chemical Alternatives</td>
<td>7. Safer chemical alternatives are provided to at least 10 shops for free</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Shops try out and provide feedback</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Report that summarizes feedback and discusses the potential environmental benefits and costs</td>
<td></td>
</tr>
</tbody>
</table>
Hours Spent on the Program

Track how much time shop employees and students spend on the program. Convert into in-kind match

Goal: $65,000

Example

<table>
<thead>
<tr>
<th>Partners</th>
<th>Hours per partner</th>
<th>Total Hours</th>
<th>Hourly Wage</th>
<th>Total Match</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>12</td>
<td>6</td>
<td>72</td>
<td>$ 44.00</td>
</tr>
<tr>
<td>Mechanics</td>
<td>12</td>
<td>10</td>
<td>120</td>
<td>$ 28.00</td>
</tr>
<tr>
<td>Students</td>
<td>5</td>
<td>20</td>
<td>100</td>
<td>$ 14.00</td>
</tr>
</tbody>
</table>

Total $ 7,928
Review Process

1. Panel of reviewers

2. Each reviewer scores the applications using the scoring matrix

3. Meet to discuss scores and make a recommendation

4. 6 - 8 week process
<table>
<thead>
<tr>
<th>Scoring Criteria</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reflects the ability to <strong>successfully develop and implement</strong> the GreenWrench Technical Assistance Program expansion.</td>
<td>5</td>
</tr>
<tr>
<td>2. Displays <strong>comprehensive knowledge of source reduction</strong> strategies for stormwater pollution, air pollution, hazardous materials, and energy use.</td>
<td>10</td>
</tr>
<tr>
<td>3. Shows comprehensive <strong>knowledge of land, air, and stormwater regulations</strong> that apply to District of Columbia automotive repair shops.</td>
<td>10</td>
</tr>
<tr>
<td>4. Provides strong evidence of the <strong>ability to recruit, retain, and build productive relationships</strong> with GreenWrench participants to achieve project goals.</td>
<td>15</td>
</tr>
<tr>
<td>5. Describes in-depth <strong>knowledge of and experience in providing technical assistance</strong> to automotive repair shops or similar businesses.</td>
<td>10</td>
</tr>
<tr>
<td>Scoring Criteria</td>
<td>Points</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>6. Demonstrates capacity to provide onsite technical assistance in languages other than English, especially Spanish and Amharic.</td>
<td>5</td>
</tr>
<tr>
<td>7. Illustrates a proficiency in effectively collecting and analyzing source reduction data.</td>
<td>10</td>
</tr>
<tr>
<td>8. Demonstrates ability to create reports and case studies that summarize data in a clear and comprehensive manner.</td>
<td>10</td>
</tr>
<tr>
<td>9. Describes ability to perform onsite technical visits throughout the District, including adequate administrative support, appropriate staffing levels, and sufficient transportation.</td>
<td>10</td>
</tr>
<tr>
<td>10. Presents an adequate and reasonable numeric budget and a clear and detailed budget narrative justifying the funds requested.</td>
<td>5</td>
</tr>
<tr>
<td>11. Presents a clear and detailed plan for tracking and reporting the time shop employees and students spend on GreenWrench, with the goal of translating in-kind hours into $65,000 of matching funds.</td>
<td>10</td>
</tr>
</tbody>
</table>
How To Apply

Due Friday, January 25th at 4:30pm.

1. Deliver 5 hard copies of the application to DOEE:
   District of Columbia Department of Energy and Environment
   RFA - Grants
   1200 First Street NE, 5th Floor
   Washington, DC 20002
   Attn: RFA 2019-1823-WPD

AND

2. Email pdf copy to GWE@dc.gov

   Tip: Use checklist in Section 8
QUESTIONS?

Clara Elias
Stormwater Pollution Prevention Coordinator
Watershed Protection Division
GWE@dc.gov • 202-645-4231

doee.dc.gov/service/greenwrench