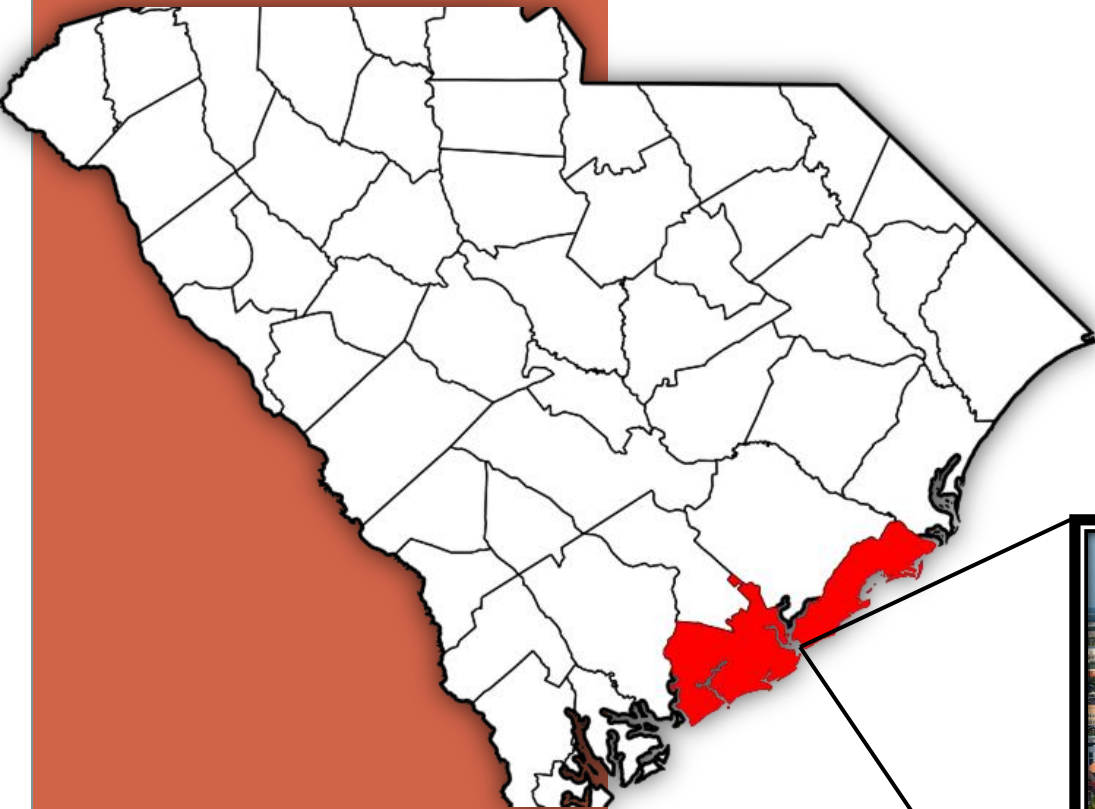


Fostering Triple Bottom Line Championships



**MAGGIE H. DANGERFIELD
SUSTAINABILITY COORDINATOR
CHARLESTON COUNTY SCHOOL DISTRICT**

**Mid-Atlantic Environmental
Literacy Summit
Shepherdstown, WV
November 9, 2015**



86
1000 mi²
49,800
6,500



Sustainable Schools Initiative



Core Pillars

- Sustainable, Healthy Schools
- Sustainable Curriculum
- Sustainable Construction

Focus Areas

- Awareness
- Waste Management
- Curriculum
- Construction
- Energy & Resource Conservation

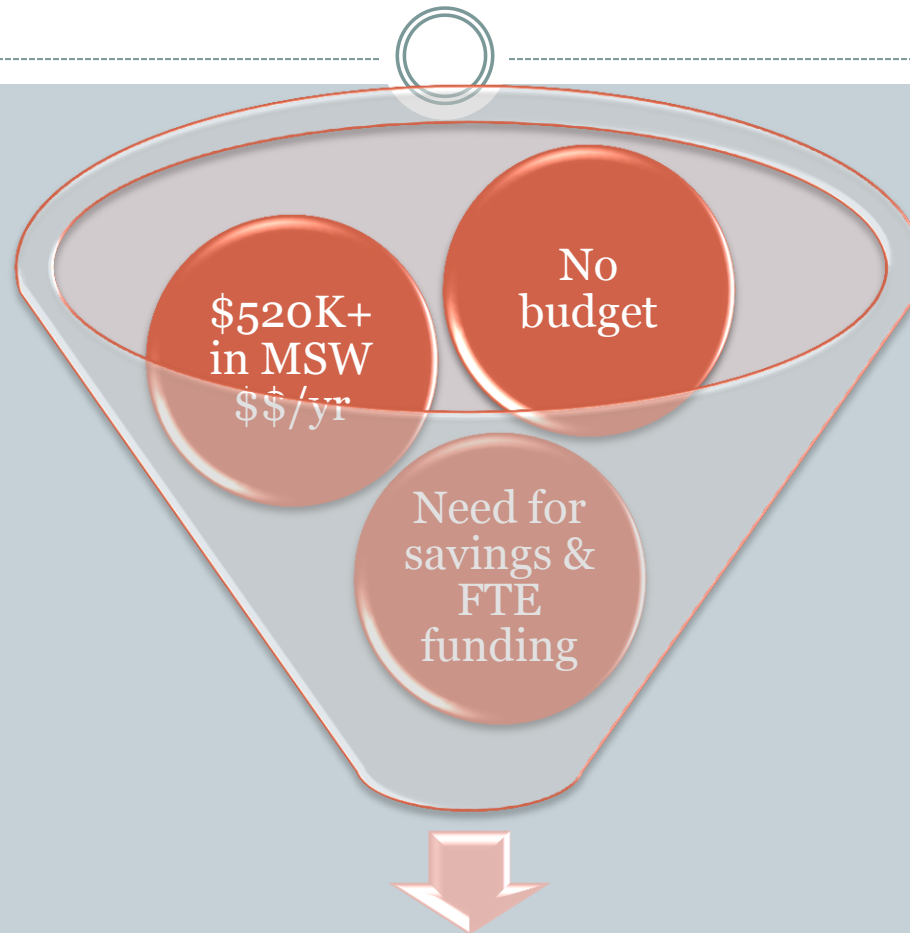
Awareness



How do we know where to start if we don't know where we are?

- **Steering Committee**
 - Superintendent, Department Heads, SC USGBC Director, Charleston County Environmental Management Representative
- **Green Liaison Network**
 - Designated or volunteer contact for every school to communicate about green programs/initiatives
 - Endorsed by Supt
 - Bi-monthly meetings to facilitate communication and idea share across schools and with central office administration

Sustainability Cost Shifting



Innovative waste
management solutions

Making Business Cents

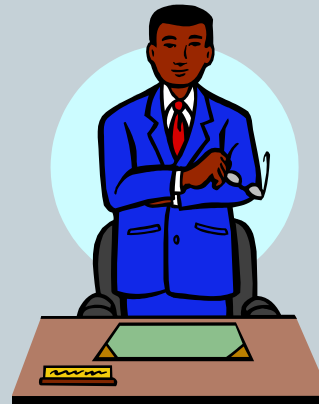


The Quest:

Recycling, Right Sizing, and Redirecting Our Cash Flow



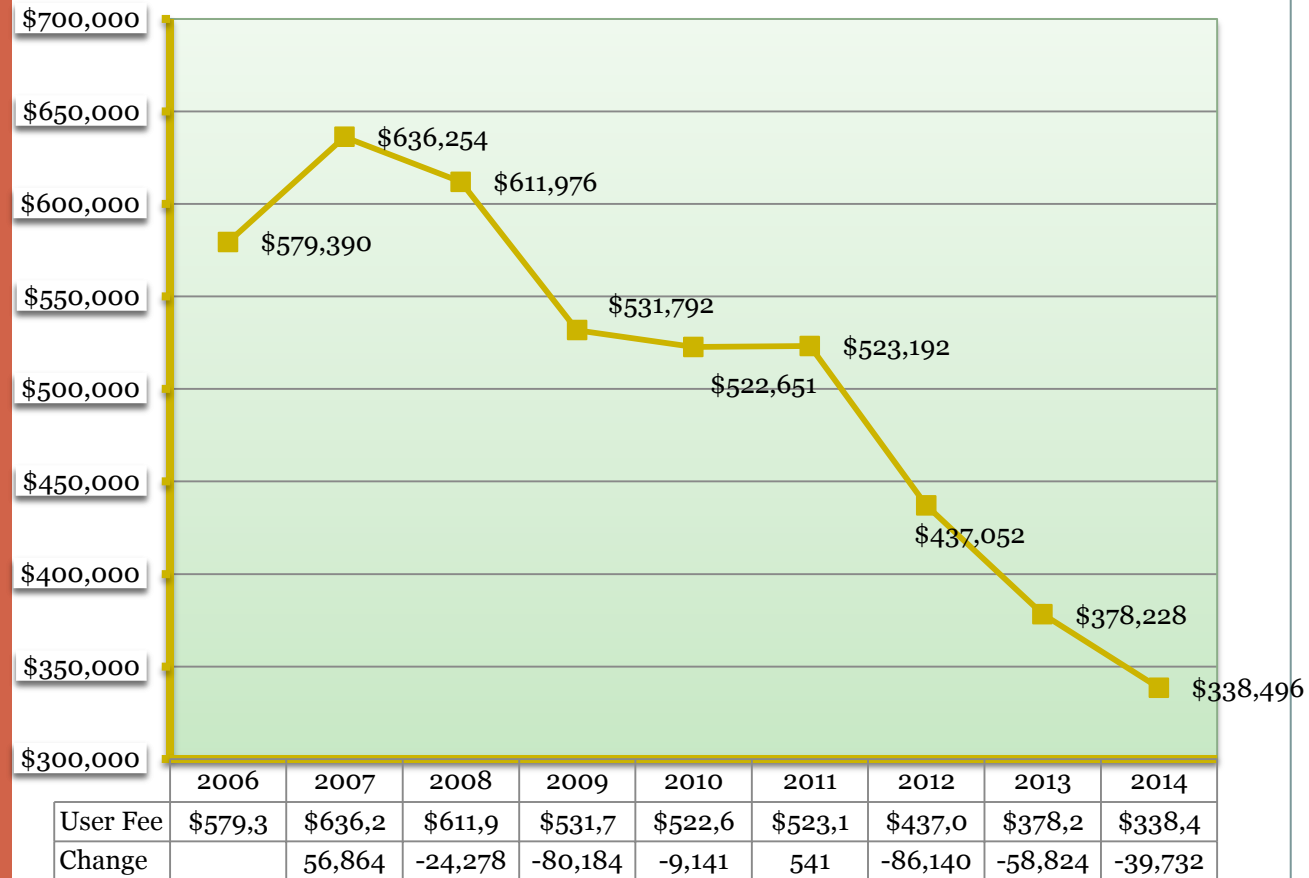
Key Players



The Breakdown

- Fee based on MSW dumpster:
 - ✦ Size
 - ✦ Frequency of service
- \$172/yd/yr
 - ✦ (1) 8-yd @ 1x/wk = \$1,376 annually
- \$240,894 in expenditure reductions for solid waste user fee bills
- \$415,800 in cost avoidance since 2011
- Experiencing diminishing returns now

USER FEE



CCSD Annual MSW User Fee Bills

Sustainability Integration

- 100+ teachers and staff from all 76 schools
- Quarterly meetings and professional development days
- Annual recognition for outstanding efforts

Green Liaison Network

- Awareness
- Recycling
- Gardening
- Stewardship
- Contests and Rewards

Student Green Team Program

Comprehensive Waste Management System

Day Porter and Cafeteria Support Staff

- Annual waste audits
- Single stream recycling in all schools
- Commercial composting
- Weekly waste stream tonnage tracking

- Annual professional developments
- Quarterly rewards and recognition programs



Food Waste Diversion Program



48 schools

- 9 MS
- 3 K8
- 36 ES

29,000+ students

- Urban
- Suburban
- Rural

>2.4M lbs diverted to date

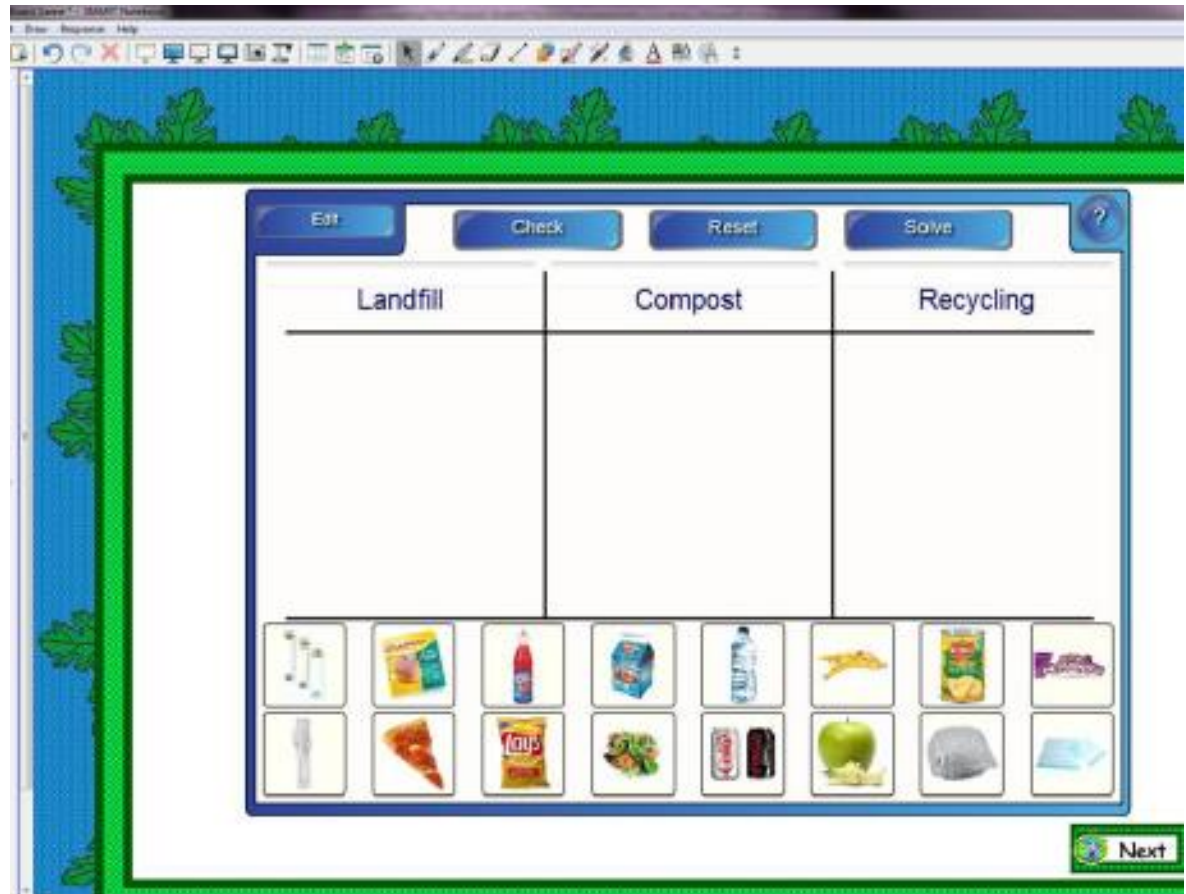
- SY12/13: 141,261
- SY13/14: 793,088
- SY14/15 : 1,245,570
- SY 15/16 ytd: 231,504

Mutually Beneficial Partnerships



Digital Education Toolkit

- Welcome Note
- Materials and Procedures Guide
- Educational and Instructional Powerpoint
- Interactive Smartboard Game for Sorting Practice
- Parent Flyer
- Dumpster Fullness Assessment Log
- Pre and Post Implementation Assessment (K-2, 3-5)



“Sort It Out” Smartboard Game

Food Waste Diversion Program

Student-Driven Sorting



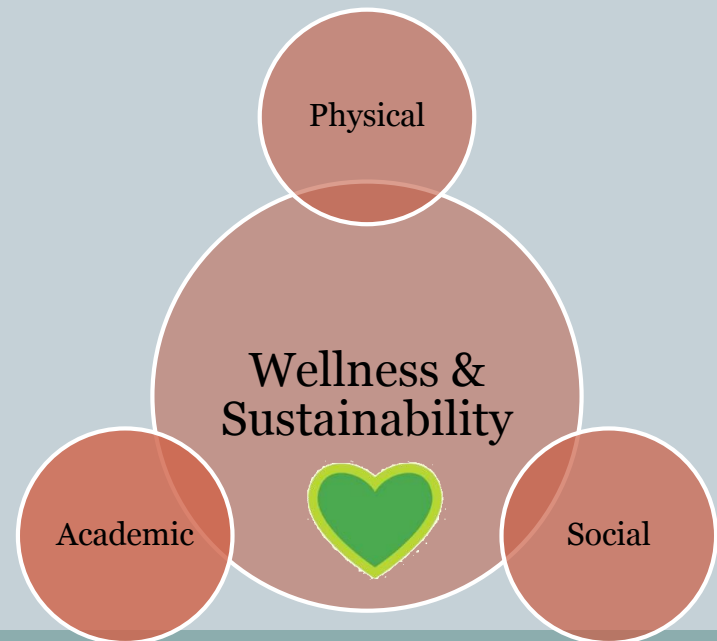
3-E Benefits

- **Educational**
 - Weekly diversion data
 - ✦ State & Common Core standard opps
 - Physical & emotional wellness
 - ✦ Social & soft skill development
- **Environmental**
 - Food waste is diverted to closed loop stream
 - Decreases methane pollution
- **Economic**
 - Less expensive than MSW hauling and storage

Farm to School Integration



- 40+ schools with gardens
 - 2 GAP certified
 - 1 micro-farm
- \$1 million grant from Boeing to tri-county area for gardens/outdoor learning
 - Clemson University Extension
 - ✦ Training & Support
 - College of Charleston
 - ✦ Research
 - Green Heart Project
 - ✦ Management



Farm to School Learning Opportunities



- Closed loop lifecycle process demo on & off site
- Green liaison & student green team stewardship projects
- Renewed school admin engagement in & commitment to sustainability
- Ability for students to connect with their community through volunteerism & sharing of produce
 - Nearby farmers stands
 - School culinary programs
 - Backpack Buddies
 - Community harvest dinners



Sustainability Symposium



Green School Awards



?s



Maggie H. Dangerfield
Sustainability Coordinator
Charleston County School District
(843) 566-1962
maggie_dangerfield@charleston.k12.sc.us