

City of Philadelphia Overview of BigBelly Solar Compactor Deployment Program



Streets Department – Sanitation Division

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Environmental Services Director

Overall Deployment

(Over 970 Units and 420 Recyclers Deployed Citywide)

Status - CLEAN

Page 1 of 2

BigBelly SOLAR

Overview | **Status** | Reports | Alerts | Inventory | Users/Accounts | Support

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Sep 19, 2011 01:50:46 PM

Status - Philadelphia, City of

819 Compactors Found

Fullness Level

- Green
- Yellow
- Red

Maintenance

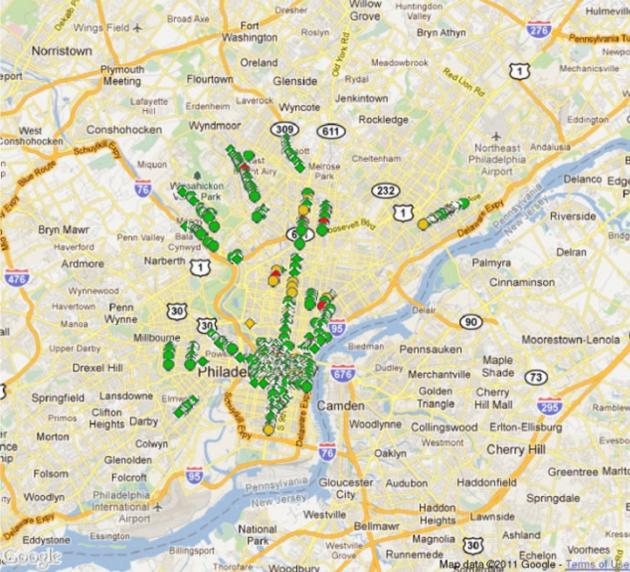
- Door Left Open
- Other Alerts

Groups

- All Groups
- 001
- 002
- 003
- 005
- 006
- 007

Compactors In Service	Current Status		
	Green	Yellow	Red
894	660	127	32

Map | List



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BigBelly Communication System

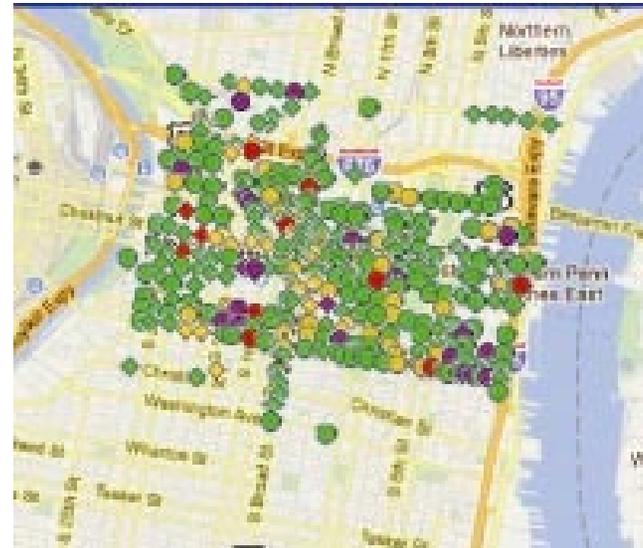
- A photo eye located above the container in the unit detects when compaction is required
- When the unit is half full the unit's status level changes from green to yellow
- When the unit can no longer compact litter the status level changes to red.
- Generally collections are made only when units have a status level of yellow or red.
- The communication system also sends notice
 - If a door is not properly closed
 - Battery level is critical
 - Software or communications problem is detected
 - Auto cycle problem is detected due to a blocked sensor

Major Changes

- Improved lock and door frame construction
- Side panel design changed – more flexible plastic
- Improved plastic solar bubble – resist cracking
- Ongoing upgrades of software
- Testing new hopper handle design

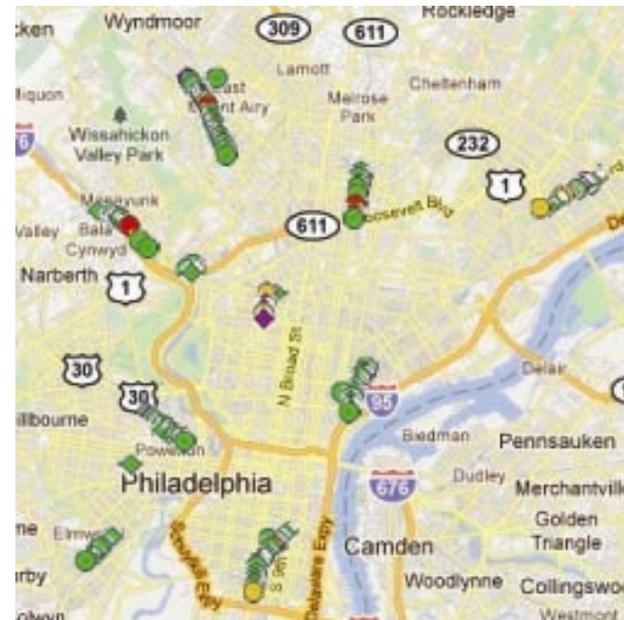
Phase 1 Implementation Center City

- **Installed April – July 2009:**
 - 454 BigBelly Units
 - 210 Recyclers
 - Funded with PADEP 904 Grants and purchased using a 3 year Lease Purchase Agreement
 - Replace about 700 Wire Baskets
 - Reduced Collection Frequency from 17 per week to about 3 per week
 - Eliminated 2 collection shifts



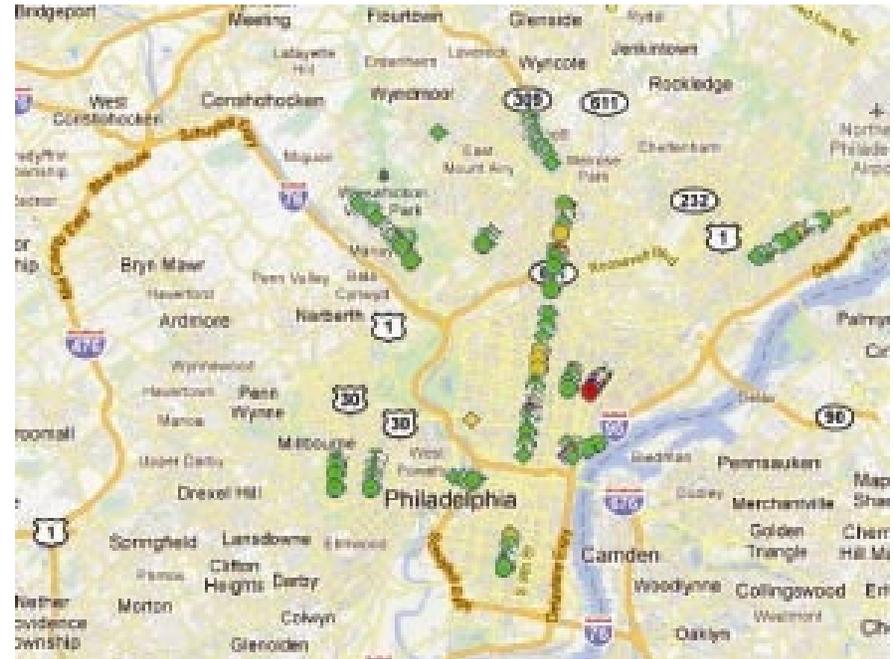
Phase 2 Implementation

- **Installed April 2010 – September 2011**
 - 205 BigBelly Units
 - 100 Recyclers
 - Funded by the Commerce Department, Part of Cleaning and Streets Scape Project Grants
 - 12 Business Corridors
 - Reduced Collection Frequency from 5 per week to 2 per week



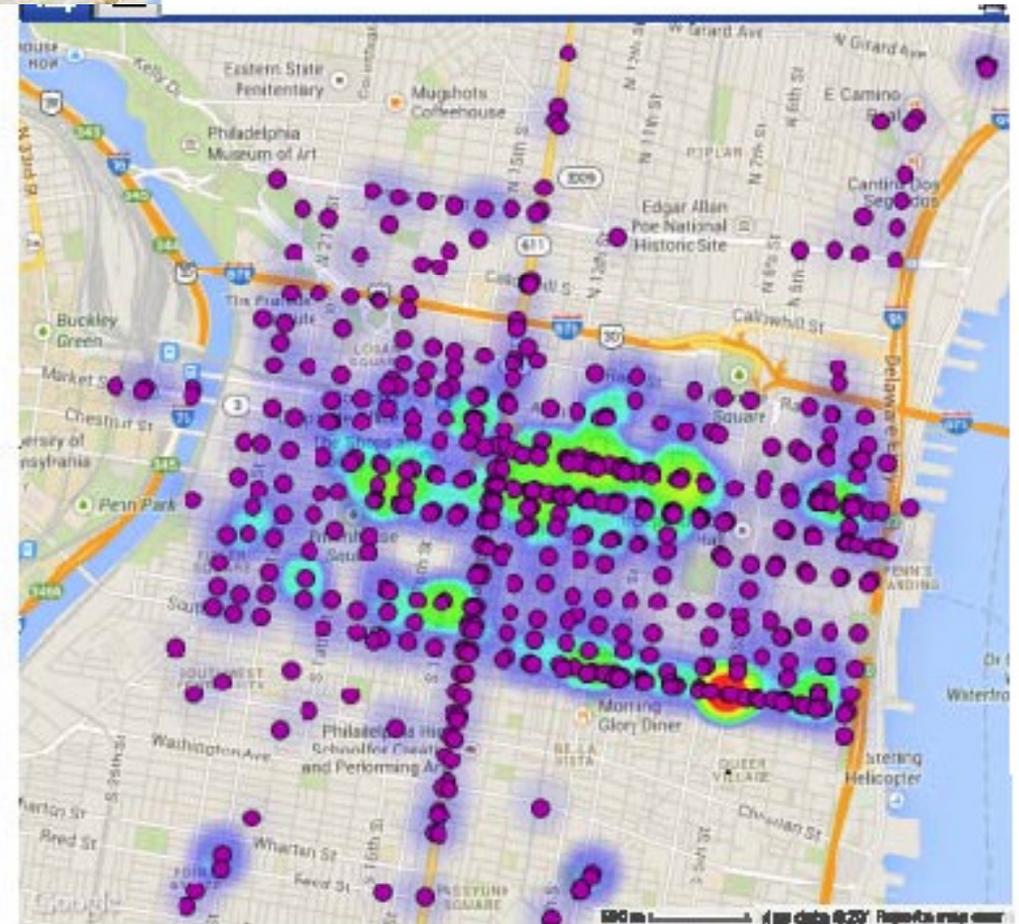
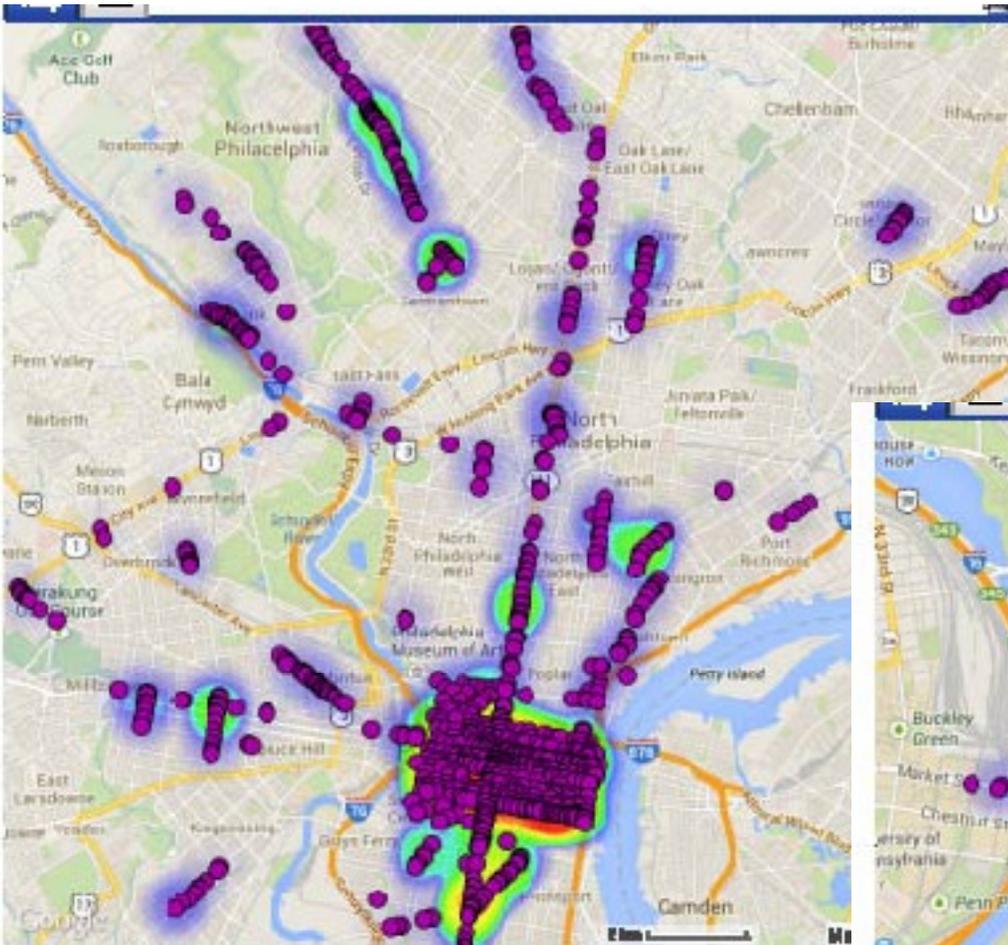
Phase 3 Implementation

- **Installed July 2010 – October 2011**
 - 235 BigBelly Units
 - 84 Recyclers
 - Funded ARRA – EECGB Grant
 - Extended Center City Deployment to include all of Broad Street and additional Business Corridors outside Center City and expand some Commerce corridor deployments
 - Reduced collections from 5 per week to 2 per week



Heat Map Citywide Collections Nov. 2013 to April 2014

Highest Volume Collected



Phase 4: Commerce Deployment along selected Business Corridors – Spring 2013

Deployment of 65 Compactors units with 25 Recyclers

- Haverford Ave (75th St to City Avenue)
- 54th & Berks
- City Ave/N. 63rd
- Chinatown
- Front & Girard Ave
- Kensington & Allegheny
- Aramingo Avenue
- Old City*
- Castor Avenue, (Robbins to Knorr)
- W Market St, selected areas (45th to 63rd)

*Old City adding additional units and recycling through a direct purchase with the Fund for Philadelphia

Targeted Deployments

- West Passyunk Avenue Corridor
- Center City Rittenhouse Square Area
- Center City Sansom Street Corridor East and West of Broad

Special Projects with BigBelly Solar

- Upgrading over 450 controller boards and software
- Long term battery replacement and management
- Development of an asset management system to minimize BigBelly Unit alerts in CLEAN
- Email Notification system for District Supervisors

Community Partnerships

- South of South Neighborhood Association
 - Funded purchase of 7 BigBellies with Recyclers using donations from the Community
 - Streets Department maintains the BigBelly Units and collects the trash and recycling
- HACE (Hispanic Association of Contractors and Enterprises)
 - Commerce Department funded wraps
 - Streets Department assisted with artwork production and design
- Two CDC groups in the Point Breeze section of the City funded the purchase of a BigBelly.

Mural Arts Program Partnership

The Philadelphia Mural Arts Program (MAP) Directed by Jane Golden and Artists Ben Woodward and Thom Lessner from the Philadelphia collective space 1026 worked with Big Picture students on the concept and creation of the artwork.

Big Picture run by MAP provides young people ages 10 to 14 with mural training and visual arts education through four sessions with a focus on community and social responsibility. Students concentrate on foundational art skills, mural design, and small indoor or outdoor murals.

Seven Litter Critter Designs were created and 50 BigBellies were wrapped for the project.

New Kensington CDC and MAP developed new Litter Critters for the Corridor



- MAP Litter Critters on Frankford Ave., New Kensington



- HACE Wrap on 5th Street North of Lehigh



- Manyunk Business District Environmental Wraps



