



Delaware Estuary Science & Environmental Summit 2015

Wednesday January 28, 2015

**"Camden's Waterfront Brownfields & Landfills:  
Opportunities For Creation of Environmental Assets That Benefit  
the Entire Delaware River Watershed"**

**by Frank McLaughlin, New Jersey Department of Environmental Protection**

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# Why Camden's environment is important to everyone in the Delaware Watershed...



...where the region's sewage and stormwater is treated (*or not...*)

...where goods, wastes, recycling are processed & transported

...has the highest density of people & problems (*& solutions!*)

...existing capacity for future population & economic growth

05/11/2009





# Camden's water problems... are our water problems...



## Combined sewer system

180 miles long, stormwater  
from 3 counties & 28 outfalls,  
discharge into Delaware River

*Camden's Cramer Hill residents  
ranked flooding as the #1 quality of  
life problem...*



# Abandoned lands & impervious surfaces impact our region's water quality...



**~1 million gallons of runoff annually per acre of impervious surface**

***'Brownfield sites' & vacant lands: soils compacted & contaminated***

# Cities in our region are Land Rich!

**Vacant residential lots**

**Brownfields:** former/current industrial or commercial sites

**North Camden:**

**32% Vacant Land**

**41% Brownfields**

**Opportunities:**

**73% of land &**

*>1-mile of tidal riverfront  
can have a new future!!!*





# Who wants to live on brownfield sites?



	Jersey City	New Jersey
Population, 2012 (April 1)	254,441	8,867,749
Population, % change, April 1-July 1, 2012	<b>2.8%</b>	<b>0.9%</b>
Population, 2010	247,597	8,791,894



# Redevelopment of brownfields... reduces flooding & improves water quality

Brownfield reuse results in...

- (1) Removal of impervious surfaces, buildings and compacted soils
- (2) Soil improvements and upgraded stormwater management

***EPA (2011) found that brownfield redevelopment reduced stormwater runoff by 47-62%***







# Development in our region's urban areas is good for (*and restores*) the environment...



**Suburban development...**

**Consumes land**

**Increases stormwater runoff**

**Increases air emissions**

**Urban Redevelopment...**

**Saves land**

**Reduces stormwater runoff**

**Reduces air emissions**





# Camden: Waterfront South Rain Gardens Park

## Remediation:

Demolition of abandoned building  
12 Underground Storage Tanks (USTs) removed  
1,850 tons of soil excavated & disposed off-site  
Enhanced Fluid Recovery of Diesel 'sheen' on groundwater



## Funding Sources:

CCMUA/NJDEP Supplemental Env't Project (p/o \$655,000)  
NJDEP Petroleum UST Fund Grant (\$122,000)  
USEPA Petroleum Assessment Grant \$100,000

## Benefits:

'Gateway' Pocket Park  
Mitigation of local street flooding  
Management of >800,000 gallons of stormwater annually  
Reduced Combined Sewer volume to Delaware River



## Partners:

Heart of Camden / Sacred Heart Church  
Center for Environmental Transformation  
Camden County Municipal Utilities Authority (CCMUA)  
New Jersey Department of Environmental Protection (NJDEP)  
Camden Redevelopment Agency  
Camden SMART (*City of Camden, Cooper's Ferry Partnership, Rutgers University, NJ Tree Foundation, CCMUA, NJDEP*)



# First Camden Collaboration...

## Camden SMART

### 2011-2013



992 Trees  
Planted

+



27 Green Infrastructure  
Projects Installed

= **3.1 million**  
gallons of  
stormwater  
captured annually



**2014  
Projects**

=

**>55  
million**  
gallons of  
stormwater  
captured annually

[www.CamdenSMART.com](http://www.CamdenSMART.com)





# Camden Collaborative Initiative

*"...is a solutions-oriented partnership between governmental, non-profit, private, and community-based agencies formed to plan and implement innovative strategies to improve the environment and the quality of life of Camden's residents" (formalized 1/24/2013)*

## **Voluntary collaboration between:**

City of Camden

Cooper's Ferry Partnership

Camden County Municipal Utilities Authority

NJDEP

USEPA

***>40 partners contributing energy & resources into Camden's environment!***





# WHY Camden Collaborative Initiative?

Camden's multi-media environmental challenges require:

- cross-program expertise & resources

- local stakeholder investment

- alignment of priorities

- internal & external coordination

- broad, holistic vision/approach

Basis of Camden Collaborative:

## COLLECTIVE IMPACT

“actors from different sectors working on a common agenda to solve complex problems...”



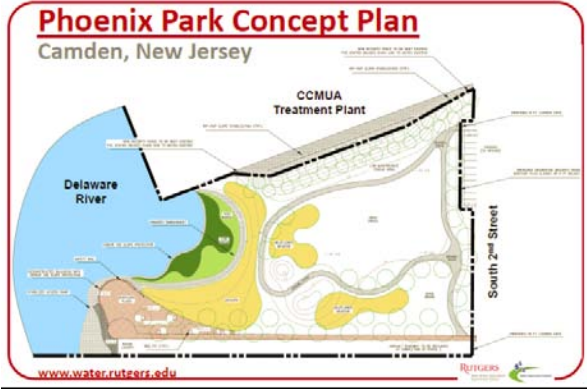


# Brownfields to Living Shorelines in Camden: PHOENIX PARK

Connects Waterfront South to river  
Creates 5.3-acres of open space  
manages >5 million gallons of stormwater  
(Funding: NJ Environmental Infrastructure Trust)

CCMUA Sewage Treatment Plant

Phoenix Park



Phoenix Park Living Shoreline Conceptual Design







# Camden Collaborative Initiative: Creating the Changes We Seek

## Salvation Army (Kroc) Community Center on Harrison Ave Landfill

***(proposed) Living Shoreline, Wetlands Creation  
Habitat Restoration & Community Access***

***(proposed) Park & Solar  
Constructed Wetlands***

***Bioretention Basins***

***Kroc Center***

***(GRAND OPENING  
October 3, 2014)***

### **Funding:**

SRP HDSRF \$22 million

SRP Publicly-Funded \$4.1 million

EPA Brownfields \$1.4 million

EPA 319H Living Shoreline \$323,000

### **Green Remediation Elements:**

On-site waste management

Use of Local Dredge Material for Cap

Alternate (Permeable/Vegetative) Cap

Reuse of site materials (e.g. concrete)

### **Green Infrastructure Elements:**

Permeable / Water infiltration Cap

~1.1-acre constructed wetlands

2000 feet bioretention basins

25 million gal/year stormwater management

***no connection to adjacent CSO...***

Planned restoration of riparian corridor

Draft, Work In Progress, & For Discussion Purposes Only





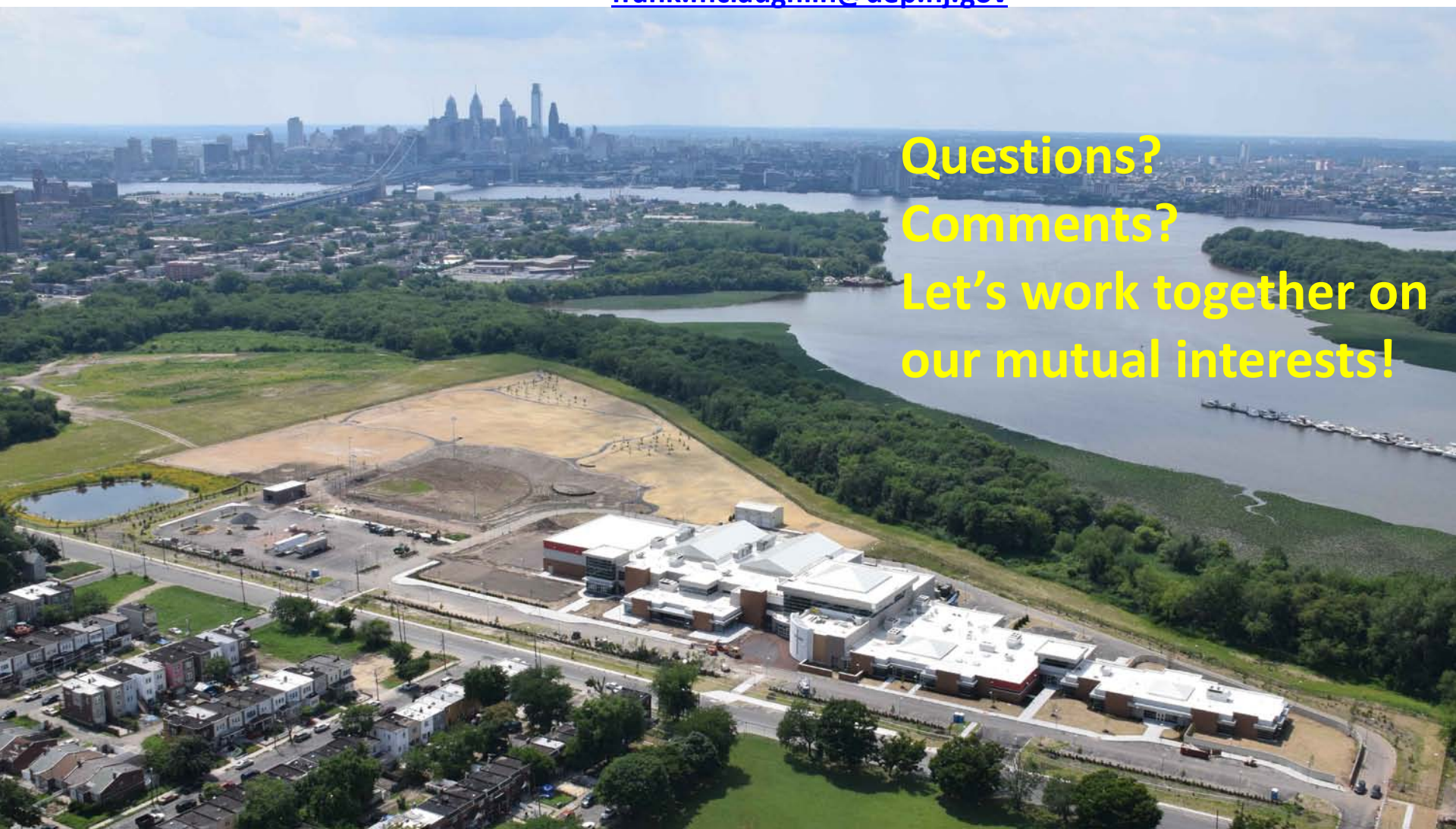
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Questions?  
Comments?  
Let's work together on  
our mutual interests!