



# Urban Waters Federal Partnership National Training Workshop

Wednesday December 3, 2014

**“Combining resources to implement urban water projects  
on brownfields and landfills in Camden, NJ”**

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

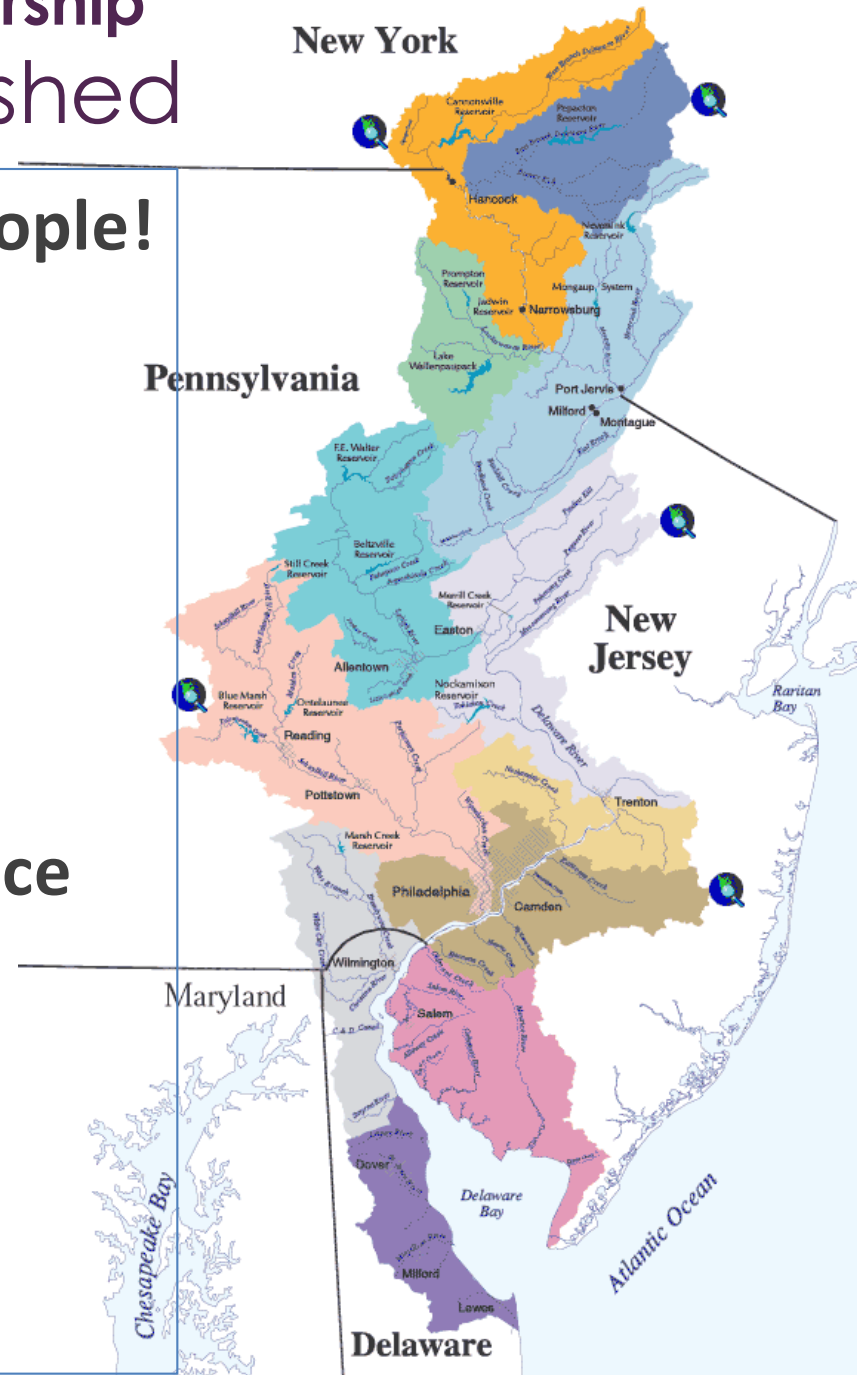
[frank.mclaughlin@dep.nj.gov](mailto:frank.mclaughlin@dep.nj.gov)





# Urban Waters Federal Partnership Delaware River Watershed

- **Drinking water: >15 million people!**
- **Urban Waters area...4 cities:**
  - Philadelphia, PA
  - Camden, NJ
  - Chester, PA
  - Wilmington, DE
- **5 UWFP Communities of Practice**
  - Water Quality and Quantity
  - River Protection and Restoration
  - Climate Resilience
  - Trails, Parks & Open Space
  - Brownfields Revitalization



# Why brownfields and urban waters?



...available land for water quality, restoration, open space

...strategic locations along waterways & infrastructure

...integrate natural systems into the build environment

...where future growth *must* happen

05/11/2009

For Discussion Purposes Only

# What is a Brownfield Site ?



**A former/current industrial or commercial site that is...**

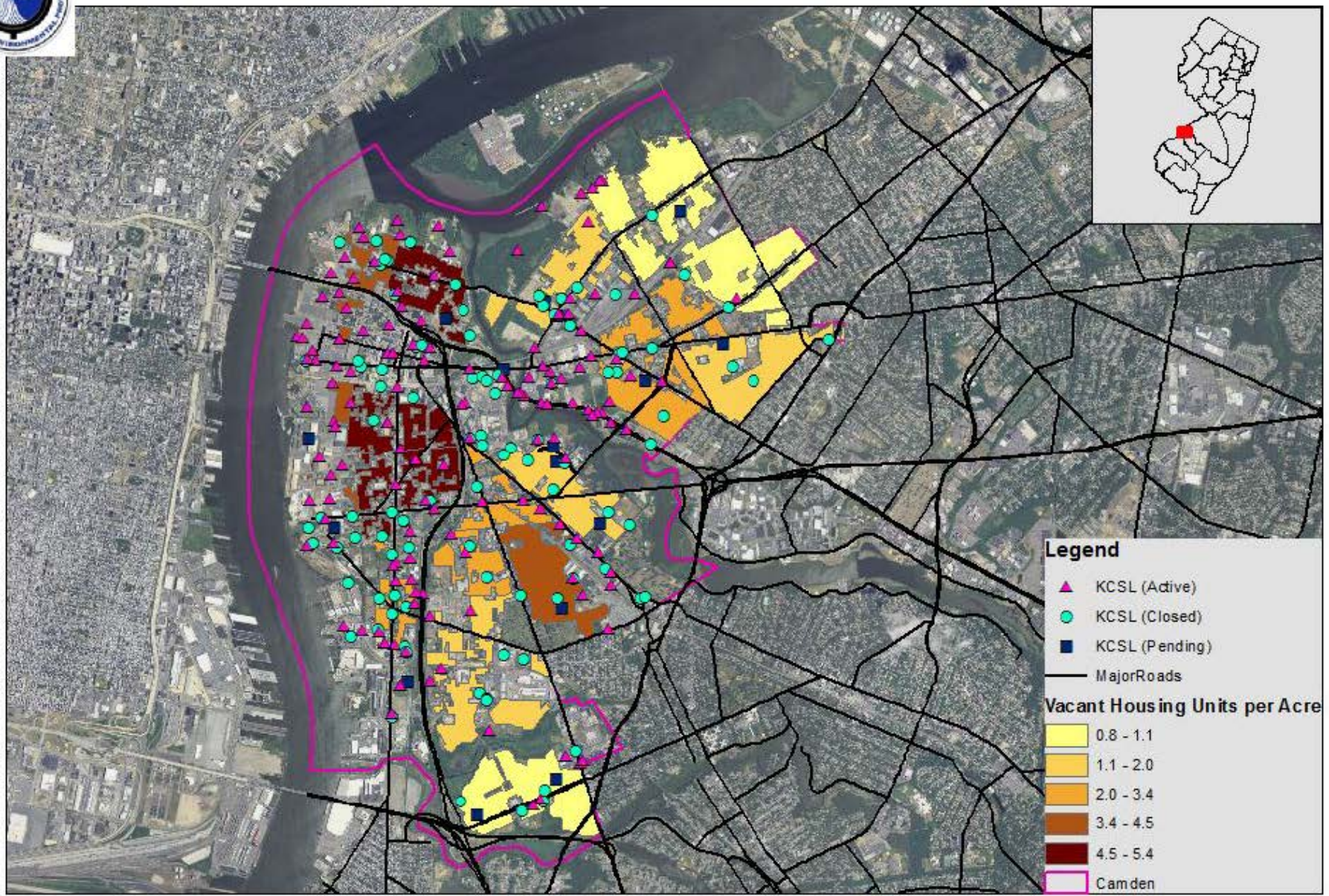
**(1) vacant or underutilized & (2) contamination suspected**



**...these are great urban water opportunities!**



# Camden Contaminated Sites and Vacant Housing Units

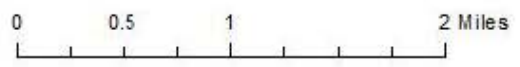


**Legend**

- ▲ KCSL (Active)
- KCSL (Closed)
- KCSL (Pending)
- Major Roads

**Vacant Housing Units per Acre**

- 0.8 - 1.1
- 1.1 - 2.0
- 2.0 - 3.4
- 3.4 - 4.5
- 4.5 - 5.4
- Camden



**DRAFT September 2013**

# Camden is Land Rich!



**Brownfields: >300 sites**

many contiguous

often along waterways

often co-located with  
abandoned residential

**North Camden:**

**32% Vacant Land**

**41% Brownfields**

**Opportunity:**

***73% of land &***

***>1-mile of tidal riverfront***





# Camden: old, deteriorated water infrastructure

*many residents ranked flooding as the #1 quality of life problem...*



## Water & sewer infrastructure

poorly maintained

mostly built late 1800's to 1930's

## Combined sewer system

stormwater from 3 counties,  
180 miles long

28 outfalls discharge to Delaware River



# Camden's Environmental Issues...

## PRIORITIES ARE LOCAL



*...opportunities in many neighborhoods...*





# Partner around Priorities!

## Camden's Priority = Flooding



**Why brownfields & flooding?**

~1 million gallons of contaminated stormwater runoff annually per acre of impervious surface



# Partnering around Priorities...Camden's First Collaboration on Flooding:

## Waterfront South Rain Gardens Park (2010)

### 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



### Benefits:

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



### 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
- NJDEP/USEPA 319h grant (p/o \$300,000)

### 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
- United States Environmental Protection Agency (USEPA)
- Camden SMART (*City of Camden, Cooper's Ferry Partnership, Rutgers University, NJ Tree Foundation, CCMUA, NJDEP*)

# Partnering around Priorities...

## Camden SMART Initiative (2011)

### Stormwater **M**anagement and **R**esource **T**raining



**City of Camden**



**Cooper's Ferry Partnership**



**Camden County Municipal Utilities Authority**



**Rutgers Cooperative Extension Water Resources Program**



**New Jersey Tree Foundation**



**New Jersey Department of Environmental Protection**



*Stormwater Management and Resource Training*

# Camden SMART Projects 2011-2013



## Camden's Collaboration on Flooding Camden SMART



+



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)



# Want to attract/combine resources?

## COLLECTIVE IMPACT

Collective Impact is the commitment of a group of actors from different sectors to a common agenda for solving a complex social problem.

### Elements of Collective Impact:

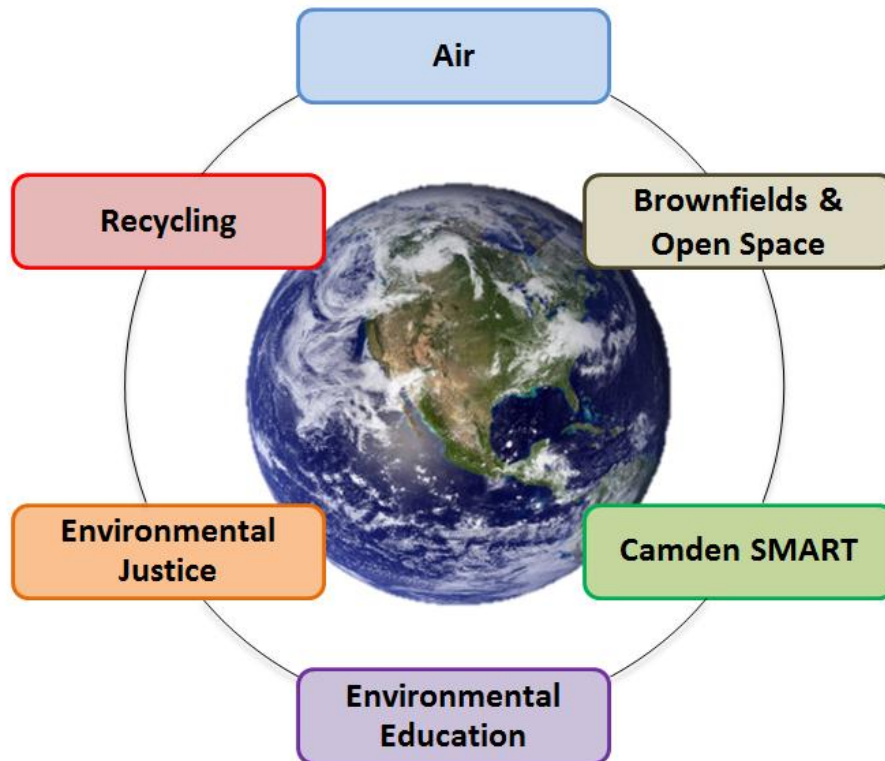
- (1) Common Agenda
- (2) Shared Measurement
- (3) Mutually-reinforcing activities
- (4) Continuous Communication
- (5) Backbone Support

# Partnering around Mutual Priorities...

## Camden Collaborative Initiative



...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 (*memorialized 1/24/2013*).



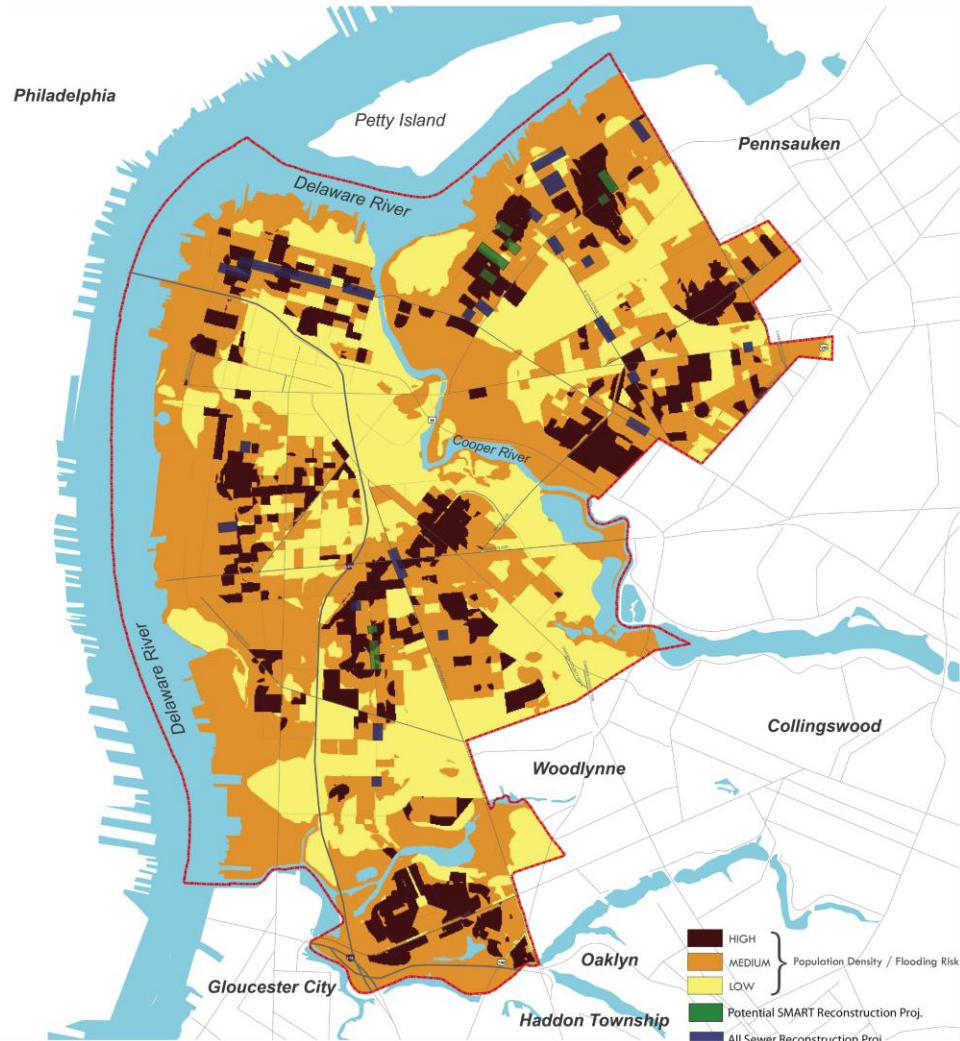


# Partnering around Mutual Priorities...

## Camden Collaborative Initiative & Camden SMART

- **Water & Land Investments**
- **Environmental Infrastructure Trust**
  - \$5.5 million (FY2013)
  - \$14 million (FY2014)
  - 4,000 LF of Sewer Replacement/Reconstruction
  - Rain gardens, depaving, stream daylighting
- **EPA Brownfield Grants**
  - \$2 million (FY2013)
  - \$600,000 (FY 2014)
- **NJDEP Hazardous Discharge Site Remediation Fund (HDSRF) Grants**
  - \$3.7 million (FY2013)
  - \$2.8 million (FY2014)
- **Other Resources**
  - NJDEP Green Acres: \$2.8 million (3 grants)
  - EPA Water: \$1 million
  - 319H Living Shoreline: \$591,000 (3 grants)
  - 319H Green Infrastructure: \$300,000

SMART Map  
At Risk Areas and Sewer Reconstruction Projects





Partnering around Mutual Priorities...

# Von Nieda Park & Baldwin's Run Stream Daylighting

## GREY INFRASTRUCTURE

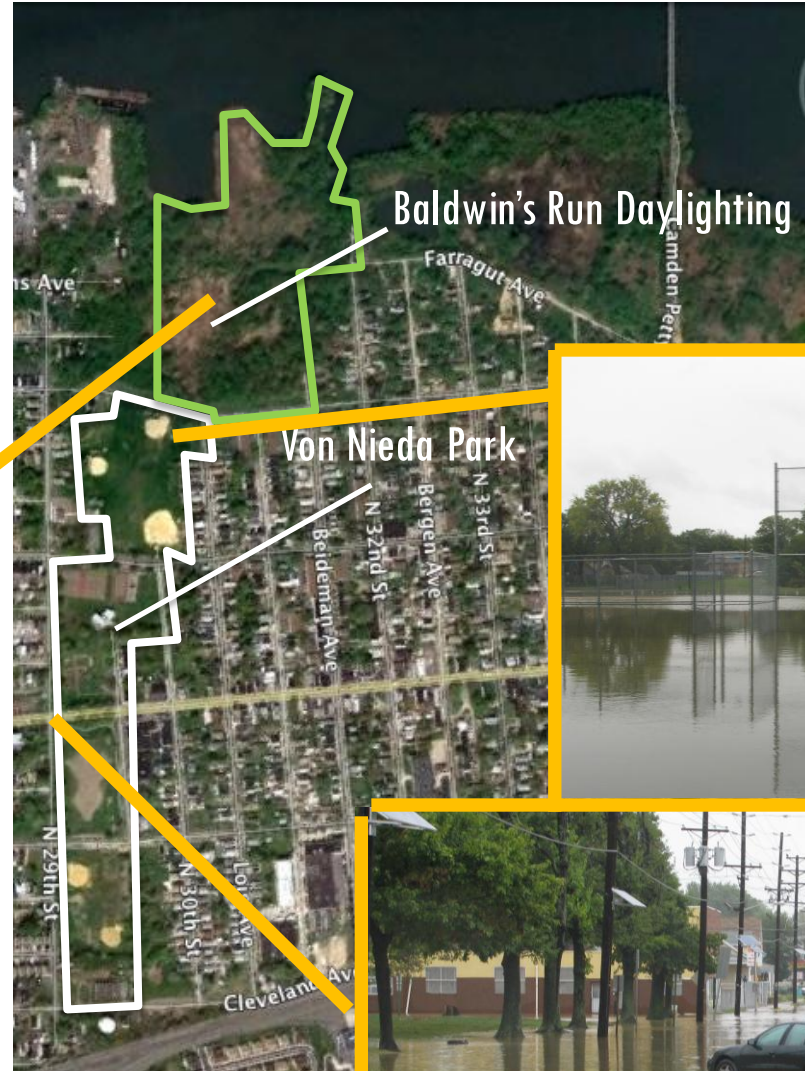
- Deteriorated
- Poorly maintained
- Inflows from suburban area

## URBAN PARKS

- Impervious cover
- Compacted soils
- Older stormwater elements

## CONDITIONS

- frequent park flooding
- frequent road flooding
- #1 community concern







## Partnering around Mutual Priorities...

# Von Nieda Park & Baldwin's Run Stream 'Daylighting'

### GREY INFRASTRUCTURE

Separate storm & sewer

### GREEN INFRASTRUCTURE

Retention/Infiltration Basins

Expand/restore wetlands

Bioswales

Daylight Baldwin's Run

### FUNDING

EIT (\$2.2 million)

DEP Green Acres (\$1.0 M)

EPA Water (\$1.0 million)

DEP SRP HDSRF (PA/SI)

### RESULT

Flood Mitigation

Park Rehabilitation

Historic Fill Remediation

~23 million gallons separation

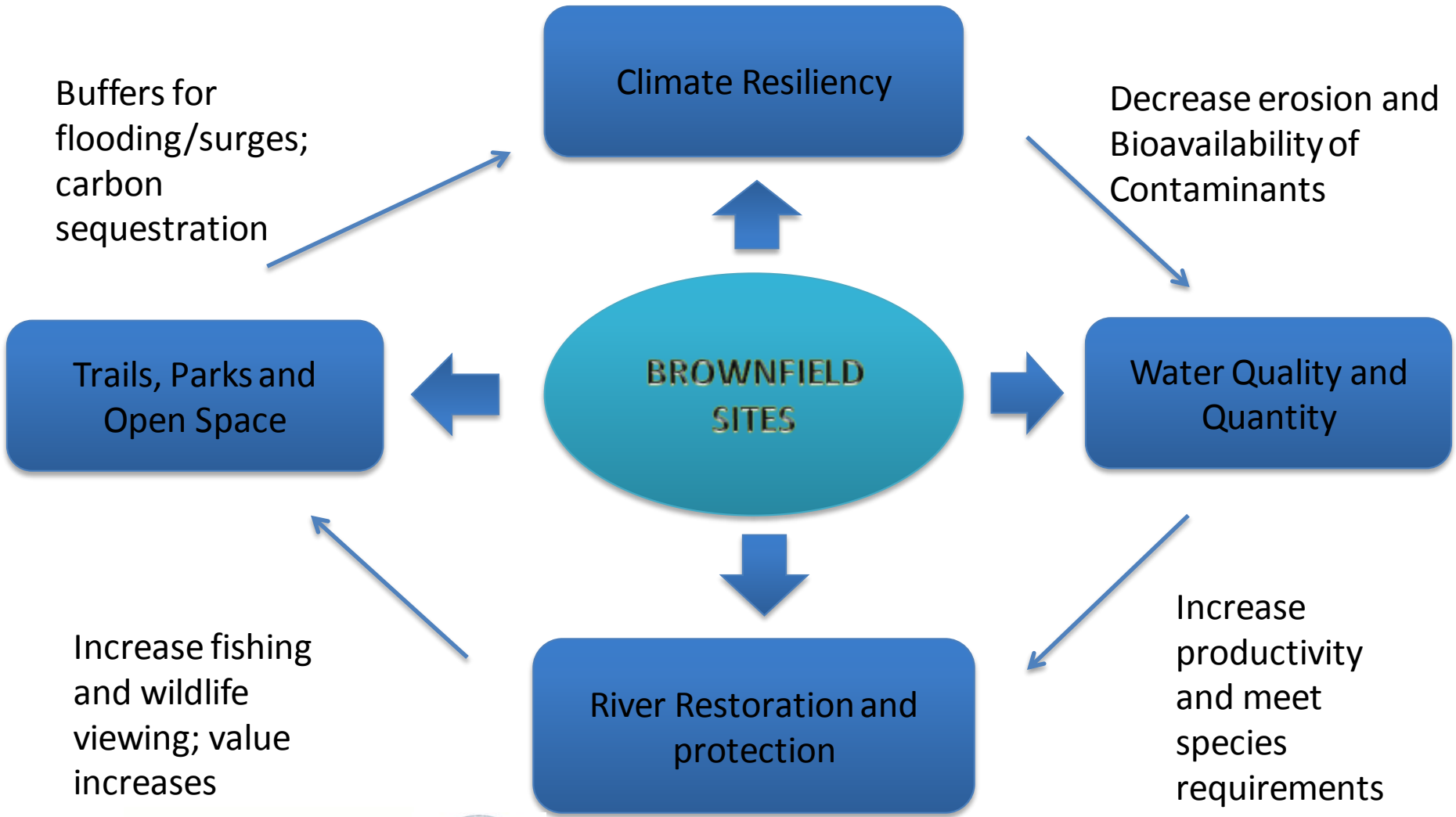
Improved water quality/CSO

**Groundbreaking July 23, 2014**



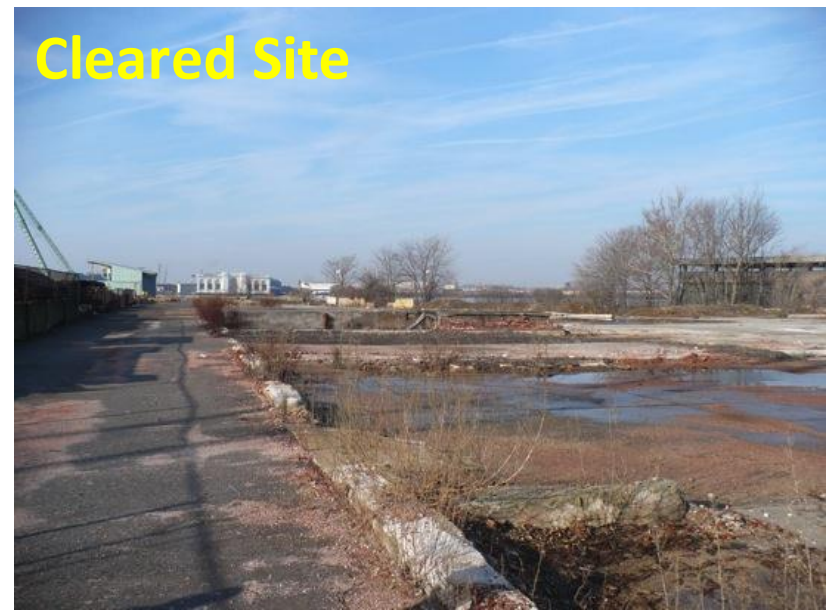
# Partnering around Mutual Priorities...

## Brownfields...a 'natural' fit for combining resources



# Partnering around Mutual Priorities...

## PHOENIX PARK: Brownfields to Park & Urban Waters



Partnering around Mutual Priorities...

# PHOENIX PARK

## BENEFITS:

- Connects community to waterfront
- Manages >5 million gallons of stormwater/year
- Remediation of former brownfield site
- 5.3-acre park with resilient living shoreline
- In-stream WQ treatment & habitat with FW mussels

## FUNDING:

- \$800,000 Camden County Open Space
- \$2.7 million NJ Environmental Infrastructure Trust
- \$655,000 (p/o) NJDEP Supplemental Environmental Project
- \$19,000 NJDEP/USEPA Living Shoreline Grant
- \$258,000 NJDEP/USEPA 319h grant



Phoenix Park Living Shoreline Conceptual Design  
Prepared by the Partnership for the Delaware Estuary 2014



COOPER'S FERRY PARTNERSHIP  
LIVE | WORK | REVEAL | CAMDEN



New Jersey Agricultural Experiment Station  
Water Resources Program



Groundbreaking 8/7/2014 & remediation underway



# Partnering around Mutual Priorities...

## Restoring brownfields to connect residents to waterfronts





# Partnering around Mutual Priorities...Harrison Ave Landfill

## Look beyond the landfill for opportunities...



**Rip-Rap Armored Edge**



**Spatterdock at Low Tide**



**Vegetated Edge**



# Partnering around Mutual Priorities...

## Salvation Army (Kroc) Center & riverfront park 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



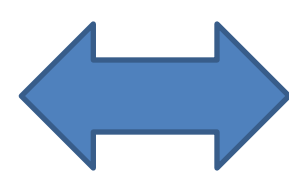
# How do you combine resources?

Partner with organizations with mutual interests

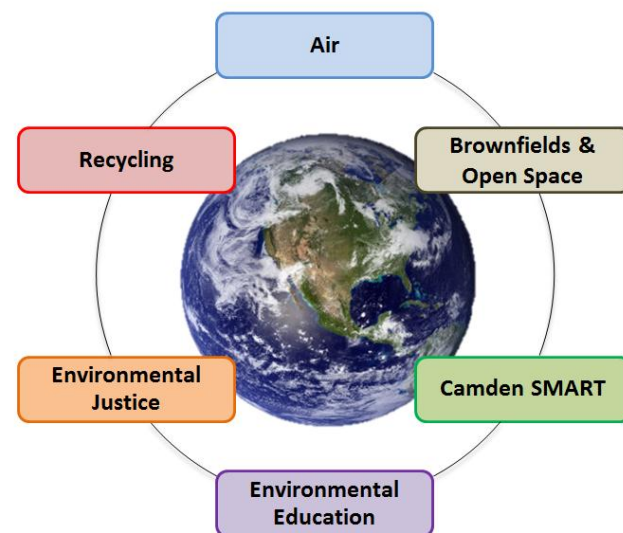
## Urban Waters Federal Partnership



## Camden SMART



## Camden Collaborative Initiative







# Urban Waters Federal Partnership National Training Workshop

Wednesday December 3, 2014

“Combining resources to implement urban water projects on brownfields and landfills in Camden, NJ”

by Frank McLaughlin, New Jersey Department of Environmental Protection

[frank.mclaughlin@dep.nj.gov](mailto:frank.mclaughlin@dep.nj.gov)



Questions?  
Comments?  
Good luck!  
Contact me...