

Camden's New Green Infrastructure Program- Protecting Public Health and the Environment

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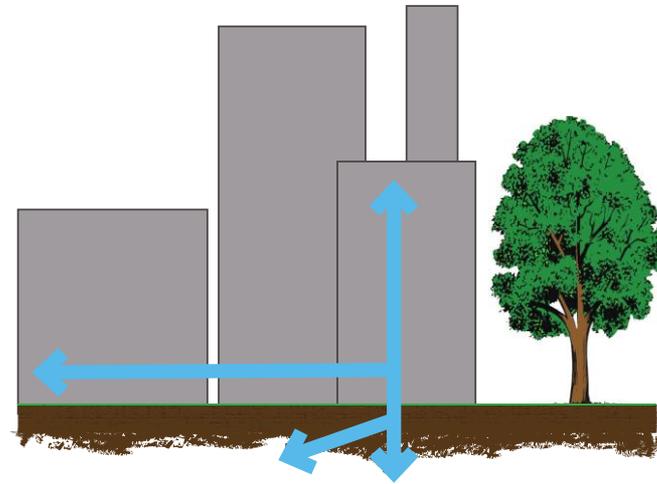
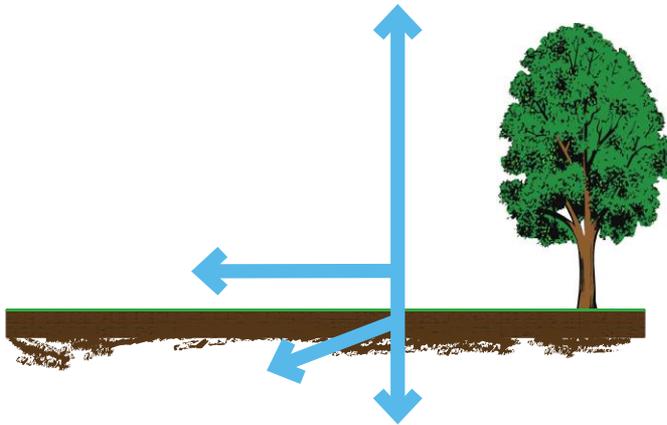
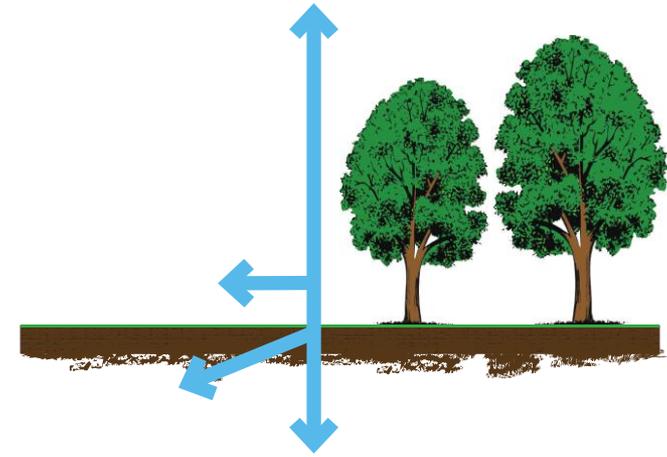
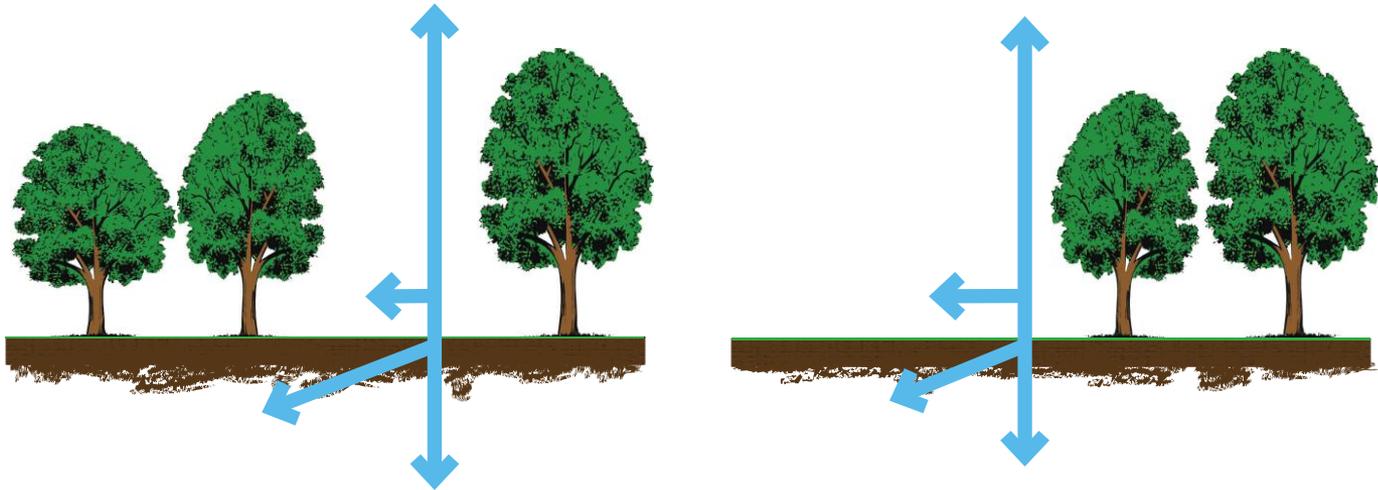
Camden County Municipal Utilities Authority



Localized Flooding in Camden

- October 1, 2010 rain event in Cramer Hill
- Capacity of existing infrastructure & topography
- Sewage water and public health hazard
- Existing conditions/needs vary by neighborhood





*more
development*



more paved surfaces



*more stormwater
runoff*



City of Camden
Camden County Municipal Utilities Authority
Cooper's Ferry Development Association
New Jersey Department of Environmental Protection
Rutgers Cooperative Extension
NJ Tree Foundation



Camden SMART's Four-Pronged Plan

- Water Conservation
- Infiltration/Inflow Removal
- Optimization of Combined Sewer System Operations
- Green Infrastructure

The Importance, and Benefits, Of Water Conservation

- Save the Planet!
 - Water is a rare and precious resource. When we conserve water, we are saving the planet for our children and future generations.
- Save Money!
 - Using less water reduces your own water bill and reduces water and sewage pumping and treatment costs.
- Reduce Flooding!
 - Using less water directly reduces the potential for flooding and overflows of raw sewage during rain events.

Water Conservation Efforts

- Public outreach to all residents and businesses.
- Jointly giving out water conservation kits to residents with United Water.
- Conserving water isn't just the right thing to do, it's the smart thing to do as well.

Infiltration/Inflow Removal

- Mixing a gallon of clean storm water or groundwater with a gallon of sewage results in two gallons of sewage.
- Infiltration of groundwater, or inflow from storm water, through leaky pipe joints, into wastewater increases pumping and treatment costs and increases the risk of flooding.
- CCMUA has entered into agreements with most of its constituent municipalities to reduce and minimize infiltration/inflow.

Optimization of Combined Sewer Systems Operation

- Maximize combined sewer storage capacity
- Clean stormwater inlets; jet sewer lines
- Minimize potable water loss
- Install solids/floatables control to minimize impact to water quality of receiving streams

Green Roofs

Rainwater Harvesting

Planter Boxes

Rain Gardens

Permeable Pavements

Vegetated Swales

Natural Retention Basins

Trees & Urban Forestry

Brownfield Redevelopment

Green Infrastructure Includes:



Natural Retention Basins



Rain Gardens



Vegetated Swales



Green Roofs



Permeable Pavements



Rainwater Harvesting

2011- KEY ACCOMPLISHMENTS



- 11 rain gardens planted in 4 neighborhoods
- Obtained \$300,000 grant from NJ DEP for green infrastructure
- Over 300 street trees planted city-wide
- Camden SMART website
- Series of community outreach and education meetings
- Increased network of partners and volunteers
- Camden SMART Opportunities Analysis
- Rain garden installation training session
- Farnham Park Stormwater Management Project

SMART ACCOMPLISHMENTS

1,500,000 gallons of stormwater treated per year



WATERFRONT SOUTH RAIN GARDENS

Green Infrastructure on Brownfield Sites



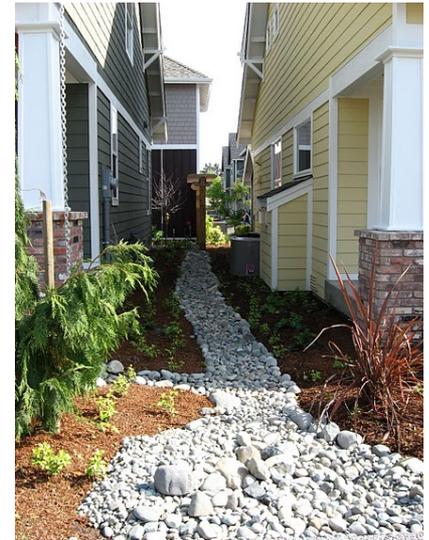
Stakeholder Group

- Rutgers Camden/Walter Rand Institute
- Cramer Hill Community Development Corporation
- Heart of Camden
- Center for Environmental Transformation
- South Jersey Land and Water Trust
- Camden County Soil Conservation District
- Rutgers Cooperative Extension of Camden County
- Camden County 4-H
- Delaware Riverkeeper Network
- Respond, Inc.
- Save Our Waterfront
- Gloucester City Tree Committee & Beautification Association
- NJDEP
- Concerned Citizens of North Camden
- NJ Conservation Foundation
- Camden DCCB
- Camden Community Development Association
- Greater Camden Partnership
- Cooper Lanning Civic Association
- Morgan Village
- Camden City Garden Club
- Holy Name School
- Camden Churches Organized for People
- Concerned Citizens of Whitman Park



Program Goals:

- 1** Educate residents and community leaders about the benefits of stormwater management and green infrastructure
- 2** Establish a network of community organizations to advocate for sustainability in the City of Camden
- 3** Implement neighborhood green & grey infrastructure projects to alleviate flooding and achieve sustainable neighborhood revitalization
- 4** Provide training on green infrastructure techniques and create skilled jobs for residents



Program Benefits:

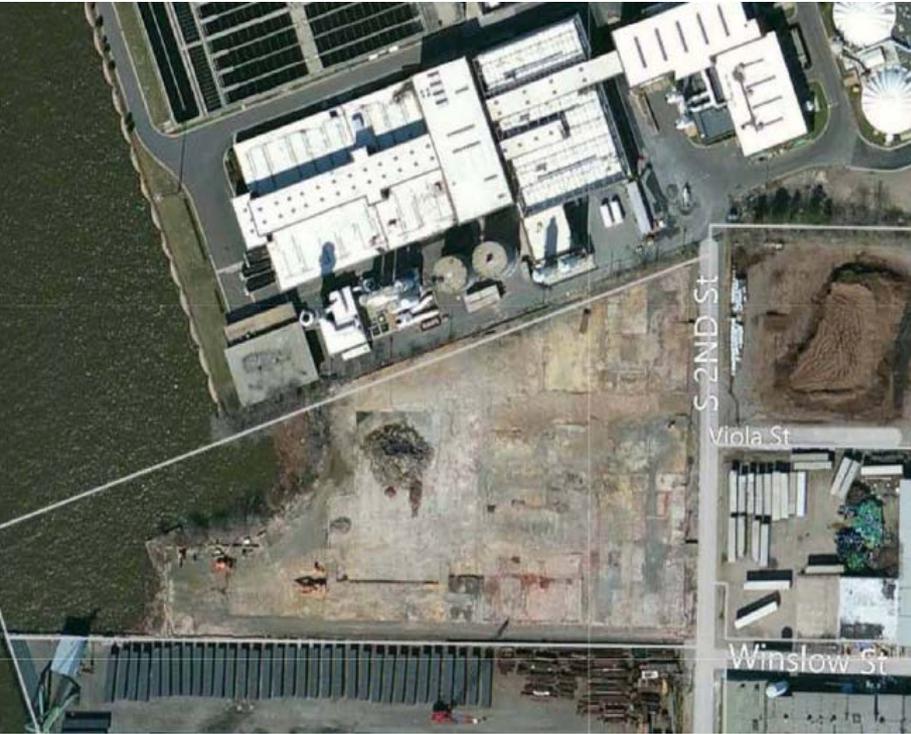
- Prevention of neighborhood flooding and combined sewer overflows
- Job creation
- Improvements in air, water and climate quality
- Additional recreational amenities and open space
- Neighborhood beautification
- Environmental policy development

2012 SMART GOALS

- Install 20 new rain gardens throughout Camden
- Solicit rain garden sponsors
- Develop Camden SMART Strategic Plan
- Break ground on Von Neida Park Stormwater Management Project & Phoenix Park
- Launch city-wide rain barrel initiative
- Provide additional opportunities for community engagement and education
- Increase network of partners and volunteers
- Environmental policy development
- Economic Development



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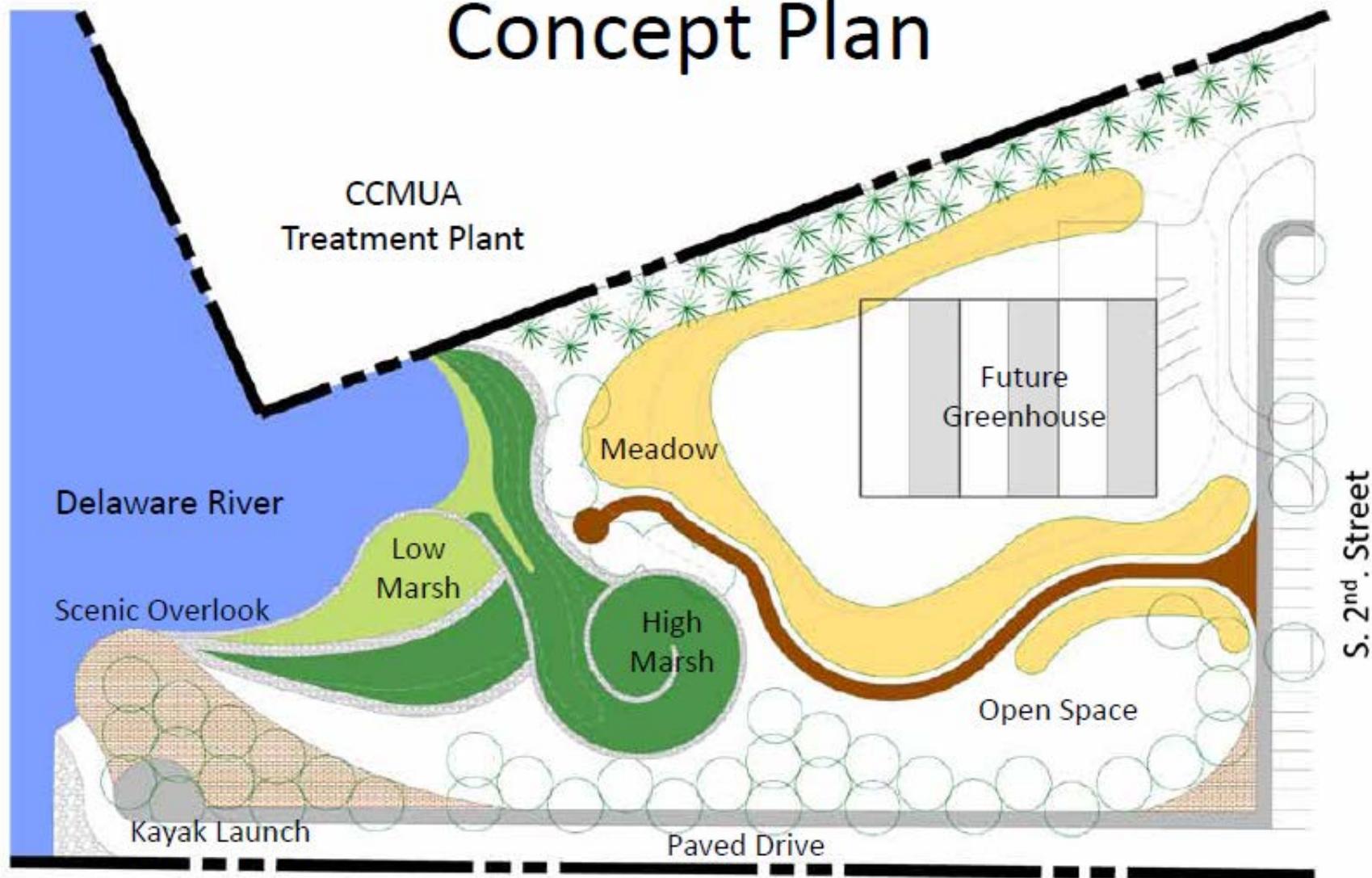


Water and wastewater treatment plants have a ***unique opportunity, and corresponding responsibility***, to help neighboring Environmental Justice communities obtain access to their waterfronts



Phoenix Park, Camden, NJ

Concept Plan



Thanks for Listening!

If you would like more information, please contact:

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