

PUBLIC PARTICIPATION REPORT

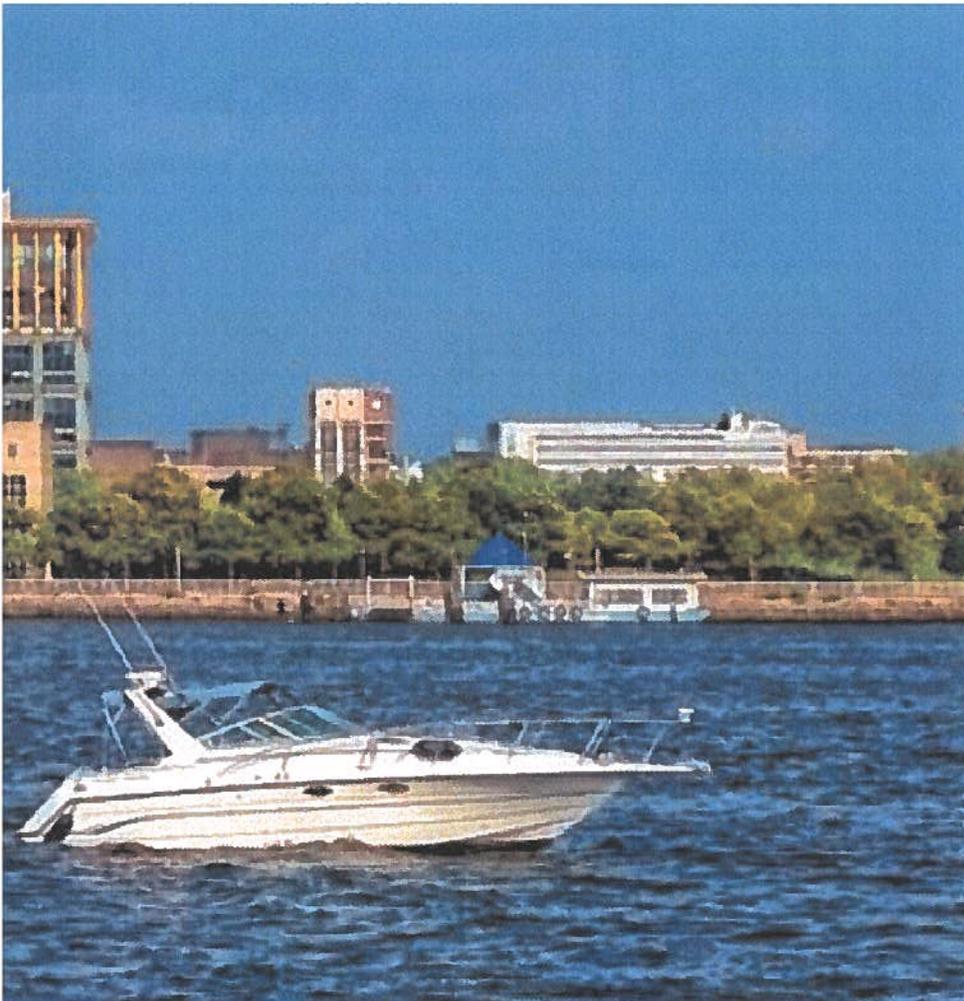
**Camden County Municipal Utilities Authority
City of Camden**

NJPDES Permit Nos.

NJ0026182

NJ0108812

Draft June 2018



Introduction

The City of Camden and Camden County Municipal Utilities Authority (CCMUA) actively and consistently work together to engage, inform and educate the public on the following key issues:

1. Combined Sewage Flooding
2. Combined Sewage Overflows
3. The Combined Sewer System's Long Term Control Plan

Actively engaging with the community pre-dates the start of the Long Term Control Plan (LTCP) process. The Camden SMART (Stormwater Management and Resource Training) Initiative, a voluntary collaboration among the City of Camden, CCMUA, Cooper's Ferry Partnership, Rutgers Cooperative Extension Water Resources Program, New Jersey Tree Foundation and the NJ Department of Environmental Protection, was formed in 2011 to protect human health, improve conditions for economic development, improve water quality and enhance the quality of life for the residents of Camden City through the use of green and grey infrastructure. The Camden SMART Initiative also has a robust public outreach component.

The creation of the Camden SMART Initiative began an era of public outreach and education on the combined sewage flooding and overflow issue that continues to grow and thrive. The goals of the Camden City and CCMUA public outreach and education program are as follows:

1. Inform – bring awareness to the public health threat of combined sewage flooding, water quality issues associated with combined sewage overflows, and the LTCP process.
2. Educate – delivering basic knowledge on why combined sewage flooding and overflows occur and the steps entities like Camden City and the CCMUA can take to correct these problems.

Camden City and the CCMUA meet the goals of informing and educating in the following ways:

1. Passive, General Public Outreach – websites, flyers, posters
2. Targeted, General Public Outreach – providing flyers, posters, pamphlets and other educational materials at public events like environmental fairs and through bill inserts
3. Educational/Workforce Programs – The PowerCorps and Green Ambassador Programs

4. Demonstration Projects – Implementation of Green Infrastructure sites throughout Camden City
5. Mitigation Projects – The Camden City Rain Barrel Installation Program and water conservation kits
6. Forums and Summits – events which gather together stakeholders and interested parties to discuss combined sewage flooding and overflow issues.

The need for engagement, outreach and education varies greatly across the service areas of Camden City and CCMUA and is dictated by the type of sewer system which services the geographic location of a customer's home or business.

Nearly all the residents and business owners of Camden City make up the affected public due to the public health concerns associated with combined sewage flooding. It is important to not only inform the Camden City public that combined sewage flooding exists (so they can avoid it if possible) but to educate them on ways to reduce inputs to the system (green infrastructure, rain barrels, water conservation) to minimize the volume during flooding events.

Except for Gloucester City, the rest of the CCMUA customers are from 35 suburban municipalities that have separated sewer systems. The CCMUA has concentrated its LTCP public outreach efforts on informing the public of the combined sewage system issues in Camden and Gloucester Cities. The CCMUA has also worked with local officials from the suburban municipalities to educate them on infiltration and inflow (I&I) issues.

The desired outcome of the Camden City and CCMUA public outreach and education effort is to bring attention to the public health hazard of combined sewage flooding and the detrimental effects of combined sewage overflows on the quality of the receiving water body until the responsible entities can eliminate combined flooding in its entirety and effectively control overflows.

Completed Outreach Activities

1) Camden SMART and Green Infrastructure Sites

Camden SMART (Stormwater Management And Resource Training) Initiative was founded in 2011 by a coalition of six entities - Cooper's Ferry Partnership (CFP), the City of Camden (City), Camden County Municipal Utilities Authority (CCMUA), Rutgers Cooperative Extension Water Resources Program (RCE), New Jersey Tree Foundation (NJTF), and the NJ Department of Environmental Protection (NJDEP)- the Camden SMART Initiative is a community-driven movement to protect human health, improve conditions for economic development, improve water quality, and enhance the quality of life for Camden City, its residents, and the Delaware River watershed through the broad use of green and grey infrastructure techniques for

stormwater management.

Because of Camden's aging and overtaxed combined sewer system, a one-inch rainstorm can leave major roads impassable, turn parking lots into stagnant lakes, and send sewage into parks, homes, and waterways. Not only is this a nuisance, it is a public health crisis that degrades the quality of life of Camden's residents and negatively impacts the City's economic viability and environmental quality. The objective of the Camden SMART is to develop a comprehensive network of green infrastructure programs and projects to solve the combined sewer problem in the City of Camden.

Appendix 1, "Camden SMART Green Infrastructure Sites", lists the projects which manage stormwater in Camden City. These sites have signs developed by Rutgers Water Resources Staff that explain the stormwater features to the public. The sites provide a visual reminder of the need to manage storm water in this combined sewer overflow community. The selection and design of these sites involve engaging the community throughout the process. Meetings and site visits are conducted throughout the process. Sites #63, 64, 65 and 66 are currently in the design phase with a new partner; The Trust for Public Land who's process involves extensive public outreach.

2) PowerCorps Camden

PowerCorps Camden is an AmeriCorps direct service program focused on improving Green Infrastructure in the City of Camden. In partnership with Camden County Municipal Utilities Authority (CCMUA) and the City of Camden under the National Governor and Mayor's Initiative, Center for Family Services launched the program in December 2015, with the goals to improve outcomes for opportunity youth and improve green infrastructure in Camden City.

Over the last three years, PowerCorps Camden has aimed to increase economic opportunity through job training and readiness for up to 60 youth each year. Since its inception, 143 Camden City residents have served and over 440 acres of land have been treated by the PowerCorps. Through projects focused on Camden's green infrastructure network, PowerCorps members play a key role in maintaining green infrastructure installations including rain gardens, city and county parks, vacant lots, and stormwater inlets that comprise Camden City's network. The members are all familiar with the issues of combined sewer systems and help to maintain the sites listed in Appendix 1. Through knowledge and skills training, some which is provided by Camden SMART and Camden Collaborative Initiative partners, PowerCorps Camden develops and nurtures young adults into environmental stewards and strong candidates for the workforce. In addition, at the beginning of each cohort, the Camden SMART partner Rutgers University provides a day of education to teach each member about the combined sewer issues that Camden faces and the benefits of green infrastructure.

The service projects PowerCorps Camden members take part in are often in collaboration with CCMUA, the Camden SMART partners and many of the Camden Collaborative Initiative

partners. In addition to general green infrastructure maintenance, members take part in environmental trainings, group service learning trips and in varied innovative projects, including repurposing concrete/rubble from construction sites to create barriers that protect existing rain gardens within the city. These collaborations allow for members to expand their environmental knowledge while also having a real and lasting impact on the City.

3) Green Infrastructure Maintenance Activities

Periodically, environmental stewardship events are held in the city so that all stakeholders including local citizens, local workers, non-profits, and governmental entities can be educated about, and actively participate in, the green infrastructure projects addressing combined sewer flooding and overflows. Since May of 2015, over 600 people have actively participated in such events.

On 5/04/2018 and 5/11/2018 the CCMUA and the Center for Family Services organized an event for 20 Subaru staff that work in Camden City. The staff maintained and planted at five Camden SMART rain gardens. On both days the combined sewer flooding issues were discussed. Rutgers staff and Rutgers Environmental Stewards, New Jersey Tree Foundation, Camden PowerCorps, Coopers Ferry Partnership, New Jersey Conservation Foundation and CCMUA staff all helped at the rain gardens.

On 4/16/2018 the New Jersey Tree Foundation and Coopers Ferry Partnership organized 50 people who planted 20 trees at Gateway Park. Urban Promise students, Camden PowerCorps, Coopers Ferry Partnership, New Jersey Conservation Foundation, Delaware Riverkeeper and CCMUA staff all helped with the planting which was attend by Camden's Mayor Frank Moran.

On 4/11/2018 the Authority staff organized a renovation of the Camden SMART rain garden at the Urban Promise School, 3700 Rudderow Street. The students in the school's environmental program worked with the Camden PowerCorps and installed a new rubble border to protect the rain garden. The CSO flooding issues in the City were discussed with the group. Rutgers Environmental Stewards assisted with the project which involved 35 people.

On 10/12/2017 Camden Public School, Brimm Medical Arts hosted "Imagine a Day Without Water". Camden SMART presented to 90 students and faculty. The presentation from the event is in Appendix 2. It included: Combined sewer system & Green infrastructure, Camden SMART, Camden Reports, Impact of development on local water sources, Water pledge and rain barrel painting, Rain garden re-fresh.

On 9/20/2017, the CCMUA hosted Camden City's Aramark Building Communities Day. 45 Aramark employees worked at three sites to maintain Camden SMART rain gardens and associated green infrastructure. Rutgers, New Jersey Tree Foundation, New Jersey

Conservation Foundation, Coopers Ferry Partnership and CCMUA staff all helped by instructing the volunteers and describing the CSO issues these features work to mitigate.

On 9/17/2017 Jeremiah Bergstrom, LLA, ASLA, Senior Research Project Manager, Rutgers Cooperative Extension Water Resources Program, Rutgers, The State University of New Jersey conducted a site visit for 30 Rutgers Environment Stewards.

On 8/20/17 Camden SMART staff worked with 30 New Jersey American Water employees to maintain the 29th Street Rain Gardens. The gardens were weeded, cleaned up and new plants were added.

On 6/07/2017 Camden SMART held the Camden Environmental Summit and 250 people attended this day-long event held at Rowan University. Panel discussions were held on the following topics: Voices of Camden's Aspiring Green Leaders, Don't Waste Our Open Space, Resilient and Healthy Futures for New Jersey's Environmental Justice Communities, Building Healthy Environments for Food Access and were followed by a CCMUA Facilities Tour. The CCMUA Executive Director, Andrew Kricun, lead 50 people on a tour of the Regional Sewer Treatment plant. The summit was organized by the members of Camden SMART.

On 4/28/2017 the New Jersey Tree Foundation held an Arbor Day celebration. At the Camden Day Nursery volunteers planted street 10 trees. The Arbor Day event was attended by Rutgers University, New Jersey Tree Foundation, New Jersey Department of Environmental Protection, Camden City, Coopers Ferry Partnership and CCMUA staff.

On 9/15/2015, 16 volunteers from Stantec along with the New Jersey Tree Foundation, Rutgers Water Resources, Coopers Ferry Partners, Camden County Soil Conservation District and CCMUA staff planted the Union field rain garden.

On 5/13/2015, 21 Home Depot volunteers along with the New Jersey Tree Foundation, Rutgers Water Resources, Coopers Ferry Partners and CCMUA staff maintained the Waterfront South Rain Gardens. The gardens were weeded, mulch and plants were added to the rain gardens.

4) Camden Rain Barrel Installation Program

This program, modeled after a successful Philadelphia Water Department Program, began in late June 2017. Community Rain Barrel Meetings are set up throughout Camden City. City residents who attend a one-hour meeting are then eligible to have a free rain barrel installed at their home. The one-hour meeting describes how the rain barrel functions and the problem with combined sewer systems. This educational program is presented by the Pennsylvania Horticulture Society. PHS staff make the arrangements with a contractor to install the rain barrels at the homes in Camden City. Camden SMART Partners are responsible for the

promotion of the program and make the arrangements for the meetings. Flyers are printed and distributed by the Camden PowerCorps and by the host organization. Appendix 3, "List of CSO Supplemental Information Distributed", has the date and number of flyers distributed for each rain barrel meeting. 16 rain barrel meetings have been held in most of the city's neighborhoods. Online or phone registration is accepted for the meeting. 190 people have attended the meetings and 110 rain barrels have been installed since the program began.

5) Customer Mailings

The CCMUA has 160,000 customers that are charged every three months for sewer service. These customers own the properties in Camden County that are connected to the sewer system. Appendix 3 has the date and number of educational flyers distributed to our customers by mail.

6) Brochures at Public Events

The CCMUA has several brochures available in the lobby of their administration building designed to inform their rate payers of various stormwater-related issues that affect the county. Appendix 4 includes a sample of each of these brochures: 7 SMART Steps to reduce neighborhood flooding and improve stormwater management; How to Prevent Stormwater Pollution; Camden County Conserves - Saving Water, Saving Money; Toilets Are Not Trashcans. These valuable sources of information are also given out at the various summits, festivals, school and community events, county fairs and public education events that the Authority participates in. At each of these events, a representative of the CCMUA staffs a table to engage with the public, answering questions and providing information about the Authority and its initiatives. These information table events attract and educate hundreds of families each year and include:

- The Camden Environmental Summit – 6/14/17
- Camden Jam: Arts and Music Festival – 9/9/17
- Camden River Days – 9/23/17
- The VietLead Harvest Moon Festival – 10/7/17
- National Community Development Week: Cramer Hill – 4/3/18
- National Community Development Week: Fairview – 4/5/18
- St. Anthony's of Padua School Art Show – 4/19/18
- The Camden Environmental Summit – 6/6/18

In addition to Camden City, brochures and information on the broader wastewater system of the County is made available at various annual county events such as:

- Collingswood May Fair

- Mt. Ephraim Night Out
- Blackwood Pumpkin Festival
- Camden County Fair
- Collingwood Green Festival
- International Day
- Gloucester Township Day

7) Media Outreach

Camden City and the CCMUA have conducted extensive outreach through conventional media and the CCMUA web site. Media coverage of the team's actions in reducing combined sewer overflows and activities in promoting public awareness of CSO problems and solutions has been extensive and is listed in Appendix 5. Each press mention was posted on the CCMUA web site.

The reported news fell into one or more of the following categories:

- Water conservation efforts, including green infrastructure and rain barrel programs
- Impact of combined sewer overflows on environmental justice communities
- Reduction of combined sewer overflows as a best management practice for wastewater utilities
- Benefits of public investment in infrastructure
- Public and organizational recognition of CCMUA/Camden SMART/Camden Collaborative Initiative efforts
- Contribution of green space and parks to stormwater management
- Impact of climate change on water infrastructure planning
- Wastewater treatment as a resource (e.g. for energy generation and process cooling)
- Publicization of innovative financing for infrastructure and other techniques to support stormwater reduction

8) CCMUA Website Information

The CCMUA Web site (<http://www.ccmua.org>) provides a central resource for relevant information available to the general public, including:

- Home page
 - Brief description of Camden County's regional sewer system and the impact of being connected to combined municipal sewer systems
- News Archive page
 - Links to each of the news items described above are listed in Appendix 5
- Green Initiatives page
 - Link to Camden SMART web site (<http://www.CamdenSMART.com>)
 - Rain Gardens and other green infrastructure projects

- Climate change information
- Water Conservation
- Energy Self-Sufficiency
- Environmental Management System
- Camden Collaborative Initiative
- Living shorelines
- Education page offers informational material on
 - Opportunities for tours
 - Wastewater treatment plants processes
 - Keeping harmful materials out of the system
 - Wastewater industry best practices
 - Strengthening water and wastewater infrastructure
 - Pollution in waterways
 - Other material prepared by partners, distributed as inserts with CCMUA's quarterly bills, including:
 - River and watershed information
 - Stormwater and steps to reduce flooding
 - Water conservation
- Contact information for Authority officials and staff

9) Green Ambassadors Summer Internship Program

In 2014 the Green Ambassadors Summer Internship Program began with 10 Camden City high school students. The purpose of the program is to create a group of local young people who can serve as ambassadors of the environment to the people of Camden. The interns participate in hands-on work experience and classroom-style environmental education that introduces them to environmental issues, solutions, and careers. By participating in this program students work to transform the city into a greener, cleaner, safer community while experiencing meaningful employment and environmental education. Appendix 6 includes the Green Ambassador job description and application for the 2018 program.

The program maintains a special focus on the environmental issues that impact Camden specifically, chief among which is the problems of combined sewer flooding and overflows. Each summer the interns tour the CCMUA facility and green infrastructure sites, and are educated about the causes and effects of the combined sewer issues in the city. To date, 67 youth have participated in the program and have gone back to their neighborhoods to spread the word about Camden's environmental issues, as well as the steps being taken to address them.

Planned Outreach Activities

In addition to continuing the activities outlined in the Completed Outreach Activities, Camden City and the CCMUA will perform outreach at each phase of the LTCP development process by performing:

1. **Passive, General Public Outreach** – posting the System Characterization, Development and Evaluation of Alternatives and Selection of Alternatives and LTCP Implementation documents online via websites.
2. **Targeted Public Outreach** – hosting informational meetings in Camden City to educate the general public about the System Characterization, Development and Evaluation of Alternatives and Selection of Alternatives and LTCP Implementation documents and to seek feedback from the general public on those issues.

CSO Supplemental Team

Camden City and the CCMUA used the *Forming and Utilizing Your Supplemental CSO Team* guidance document (Appendix 7) and worked with the NJDEP via email correspondence (Appendix 8) in creating the CSO Supplemental Team (CSOST). The result of those efforts is a CSO Supplemental Team made up of more than 20 individuals representing more than 15 entities and was considered to be representative of the area and its needs (see Appendix 9 for a complete listing of invitees). Camden City and the CCMUA understand that there is a likelihood there are other interested parties whom they are not aware of but that should be part of the CSOST. To compensate for this likelihood, all CSOST invitees were asked, and have been continued to be encouraged, to identify and invite people and/or entities they feel should be involved in the LTCP process.

All individuals that were identified as potential CSOST members were sent a letter via email on or around April 7, 2018 (see sample in Appendix 10) which explained the LTCP, the public participation component of the LTCP and asked them if would join the CSOST. It also conveyed the stated purpose of the CSOST as follows: Through the CSO Supplemental Team, the City and the CCMUA will gain a public perspective on CSOs, local water quality issues and sewer system problems including flooding.

The first convening of the CSOST took place on May 25, 2017. The goal of the meeting was to bring together the team and give an overview of combined sewer systems and the LTCP. The PowerPoint used in that meeting is attached as Appendix 11.

The second convening of the CSOST took place on December 13, 2017. The goal of the meeting was to gain feedback from the team regarding Sensitive Areas in the combined sewer system area, especially primary contact recreation waters. Representatives from the CCMUA, the City of Camden, and the DEP met with community members and local organizations to discuss and determine which sections of the waters affected by CSO overflows require special consideration

because of the possibility of direct or indirect contact through recreational activities. A list of the attendees and the organizations they represented can be found in Appendix 12.

A presentation was given by the Executive Director of the CCMUA to explain the combined sewer issue, the goals of the Long Term Control Plan, and the importance of identifying Sensitive Areas. Slides from the presentation can be found in Appendix 13. Subsequent discussions with the attending members of the CSO Supplemental Team revealed which areas of the Cooper River, Newton Creek and Delaware River back channels are frequently canoed upon. A map of these locations can be found in Appendix 14. The magnitude of the recreational activities was estimated through the Urban Promise Ministries' Urban Trekkers Program representatives; In a given year, over 500 participants canoed these waters through the Urban Trekkers program.

The third convening of the CSO Supplemental Team, focusing on providing information from the System Characterization Report was scheduled at two different times to be as flexible as possible. CSOST members chose not to attend the first meeting, scheduled for June 26, 2018. The second meeting will be held during the week of July 16, 2018. Any comments from the CSOST will be incorporated into the final version of this report and/or the System Characterization.

Future Meeting Topics of the CSO Supplemental Team

- Presentation and discussion of the System Characterization Report
- Presentation of Alternatives
- Evaluation and selection of Alternatives
- Selected Alternatives
- Semi-annual Implementation Updates

Feedback and Engagement

Moving forward, the City of Camden and the CCMUA will solicit feedback from the CSOST and public by hosting meetings and making information available through each organization's website.

System Characterization – the report will be reviewed and explained with the CSOST. The report will also be made available to the public via website.

Development and Evaluation of Alternatives – meetings will be held with the CSOST to review possible alternatives. Additionally, meetings will be held at a sewershed level to discuss the alternatives that would help to eliminate flooding and overflow at the outfall for that specific

sewershed. Feedback from both the CSOST and sewershed meetings will be considered in the evaluation of the alternatives.

Selection of Alternatives – prior to selecting the alternatives that will be used, meetings will be held with the CSOST and the public within the affected sewershed. Feedback from these meetings will be considered before making the final selection. After the final selection, another round of meetings will be held with the CSOST and the affected sewersheds to inform them of the decision and to solicit feedback.

Implementation – meetings will be held as sewershed specific controls are being implemented to inform the residents and business owners of construction schedules and other information related to the controls.

Appendix 1

Camden SMART Green Infrastructure Sites

Project Name - Features	GI#	Street Address	Neighborhood	Completion Date	Gallons of Stormwater Captured per Year
Michael Doyle Fishing Pier	1	200 Jackson Street	Waterfront South	April 2003	N/A
20th St Community Garden, Rain Garden	2	N 20th at River Ave	Cramer Hill	June 2010	63,000
Sumner Elementary School, Rain Garden	3	1600 S 8th St	Centerville	June 2010	110,000
Ferry Avenue Rain Garden	4	1656 Ferry Avenue	Waterfront South	March 2011	75,000
Waterfront South, Rain Gardens, Wildflower Meadow	5	S Broadway @ Chelton Ave	Waterfront South	July 2011	470,000
Ferry Avenue Library, Rain Garden	6	852 Ferry Avenue	Centerville	April 2012	62,500
Brimm School, Rain Garden	7	1626 Copewood Street	Whitman Park	May 2012	81,000
PRUP, Rain Garden and Rainwater Harvesting	8	818 S. Broadway	Bergen Square	June 2012	31,250
RT Cream School Rain Garden	9	1875 Leon Huff Street	Centerville	41061	25000
29th St., Rain Gardens	10	29th St @ Pierce St & Tyler St	Cramer Hill	July 2012	296,000
Woodrow Wilson High School, Rain Garden	11	3100 Federal Street	Stockton	July 2012	30,000
Waterfront South Native Plant Nursery	12	1645 Ferry Avenue	Waterfront South	July 2012	
Park Blvd, Rain Garden #1	13	Park Blvd @ Magnolia Ave	Parkside	August 2012	60,000
Park Blvd, Rain Garden #2	14	Park Blvd @ Vesper Blvd	Parkside	August 2012	40,000
304 State St., Rainwater Harvesting Neighborhood Center	15	304 State Street	North Camden	September 2012	3000
Rain Garden, Rainwater Harvesting	16	278 Kaighns Ave	Central Waterfront	September 2012	119,000
Front St. Community Garden, Rainwater Harvesting	17	N Front St at Penn Street	Cooper Grant	March 2013	5,000
Pyne Poynt School, Rain Garden	18	N 7th Street @ Erie Street	North Camden	April 2013	47,700
Urban Promise Academy, Rain Garden	19	27 N 36th Street	Rosedale/East Camden	May 2013	22,500
Yorkship Elementary School, Rain Garden	20	1251 Collings Ave	Fairview	41395	22500
St. Anthony's, Rain Garden	21	29th St @ River Ave	Cramer Hill	July 2013	175,000
Liney Ditch Park, Shelterbelt Tree Planting	22	Jasper Street	Waterfront South	October 2013	117,000
Baird Blvd, Rain Garden	23	Baird Blvd & Cooper River	Marlton	41791	122000
Gateway Park, Rain Garden	24	Route 30 & Thorndyke	Marlton	June 2014	221,000
Jackson St, Rain Garden	25	200 Jackson Street	Waterfront South	June 2014	258,000
Trenton Ave, Rain Garden	26	Trenton & Newton Ave	Cooper Grant	June 2014	32,000
Parkside Learning Garden, Cistern	27	1219 Haddon Ave	Parkside	October 2014	12,000
Mt. Zion Highway of Holiness, Porous Pavement	28	295 Chestnut Street	Central Waterfront	November 2014	51,541
Neighborhood Center, Porous Pavement	29	278 Kaighns Ave	Central Waterfront	November 2014	17,306
Phoenix Park Phase #1, Wildflower Meadow, Depaving, Porous Pavement, Trees	30	227 Jefferson St	Waterfront South	August 2015	5,000,000
Acelero Learning Center, Downspout Planters	31	311 Grand Ave	Marlton	September 2015	29,687
Adventure Aquarium, Rain Gardens	32	1 Riverside Drive	Central Waterfront	September 2015	158,854
Brimm School, Porous Pavement, Stormwater Planter	33	1626 Copewood Street	Whitman Park	September 2015	121,774
Cooper Sprouts Community Garden					
Rain Garden, Rainwater Harvesting, Porous Sidewalk, Trees	34	7th & Newton Avenue	Cooper Grant	September 2015	221,415
Dudley Grange Park, Rain Garden, Trees	35	3100 Federal Street	Dudley	September 2015	27,488
Ferry Avenue Library					
Rain Garden, Stormwater Planter, Downspout Planter, Tree	36	852 Ferry Avenue	Centerville	September 2015	282,508
Henry H Davis School, Downspout Planters	37	3425 Cramer St	Rosedale/East Camden	September 2015	79,716

Camden SMART Green Infrastructure Sites

Project Name - Features	GI#	Street Address	Neighborhood	Completion Date	Gallons of Stormwater Captured per Year
Octavius V. Catto School, Rain Garden, Trees	38	3100 Westfield Ave	Dudley	September 2015	207,031
Respond Day Care, Rainwater Harvesting, Trees	39	309 Vine St	North Camden	September 2015	35,735
St. Bartholomew's Church, Rain Garden, Rainwater Harvesting	40	749-751 Kaighns Ave	Bergen Square	September 2015	7,500
St. Joan of Arc Church, Rainwater Harvesting	41	3107 Alabama Rd	Fairview	September 2015	2,500
US Wiggins Elementary School, Porous Pavement, Tree Pit Vietnamese Community Garden	42	400 Mt. Vernon St	Bergen Square	September 2015	79,716
Rain Garden, Rainwater Harvesting, Porous Sidewalk Yorkship Elementary School	43	29th & Cramer St	Dudley	September 2015	114,279
Porous Pavement, Landscape Planters, Trees	44	1251 Collings Rd	Fairview	September 2015	145,414
Union Field/ Malandra Hall, Rain Garden	45	1244 S Merrimac Rd	Fairview	September 2015	340,000
Von Nieda Park/ Baldwin's Run	46	29th & Harrison St	Cramer Hill	October 2015	50,000,000
Von Nieda Park, Rain Garden	47	29th & Harrison St	Cramer Hill	April 2017	10,614
4th & Washington, Stormwater Planters	48	4th & Berkley St	Lanning Square	May 2017	192,800
Admin Parking Lot, Porous Pavement, Rain Garden	49	1645 Ferry Avenue	Waterfront South	May 2017	738,400
Bonsall School, Stormwater Planters, Porous Pavement	50	1575 Mt. Ephraim Ave	Liberty Park	May 2017	736,300
Broadway Triangle, Rain Garden	51	Walnut St & Broadway	Bergen Square	May 2017	104,300
Coopers Poynt School, Porous Pavement	52	3rd & York Sts,	North Camden	May 2017	495,200
Cramer School, Tree Pits	53	2800 Mickle Street	Stockton	May 2017	960,360
Elijah Perry Park, Porous Pavment	54	Ferry Ave & Phillips St	Centerville	May 2017	294,400
Westfield Ave, Porous Pavement	55	3706 Westfield Ave	Rosedale/East Camden	May 2017	176,700
Phoenix Park Phase #2, Wildflower Meadow, Depaving, Porous Pavement, Trees	56	227 Jefferson St	Waterfront South	November 2017	1,000,000
Cramer Hill Nature Preserve, Nature Trail	57	32nd & Farragut Ave	Cramer Hill	December 2017	
9th and Woodland Ave, Infiltration Trench, Trees	58	9th & Woodland Ave	Morgan Village		35,298
Dudley School, Rain Garden	60	2250 Berwick St	Marlton		108,807
Early Childhood Development Center, Planter Boxes	61	1602 Pine St	Parkside		107,301
Princess Ave, Infiltration Trench, Porous Pavement, Trees	62	Princess & Walnut St	Parkside		191,301
Benjamin Franklin Bridge	63	Elm & Delaware St	Central Waterfront		
Coopers Poynt School	64	3rd & York St	North Camden		
Domenic Andjuar Park	65	Erie & Point St	North Camden		
Molina School	66	7th & Elm St	North Camden		
Alberta Woods, Rain Garden	67	SE Washington & 30th	Stockton		
57 Completed		5/22/2018		TOTAL:	63,131,988

Appendix 2



Imagine A Day Without Water 2017

October 12, 2017



The SMART Team



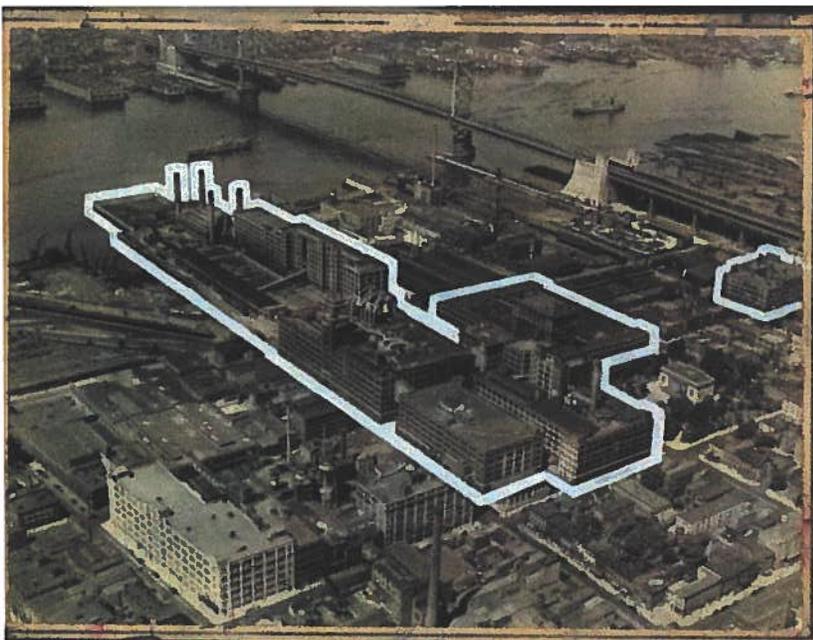


Types of Water

- Drinking water
- Sewage
- Stormwater Runoff



Where do we get our Drinking Water?



Camden's water history:

1845: Camden Water Works

Takes water directly from Delaware River (Cooper St)

(1854: Pavonia station)

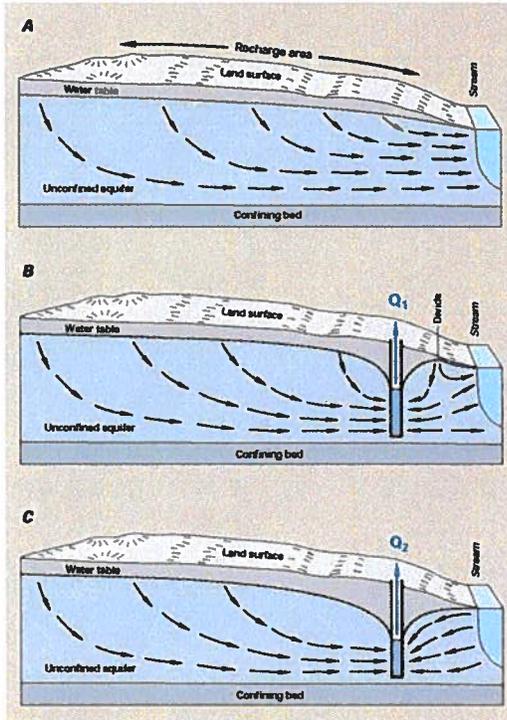
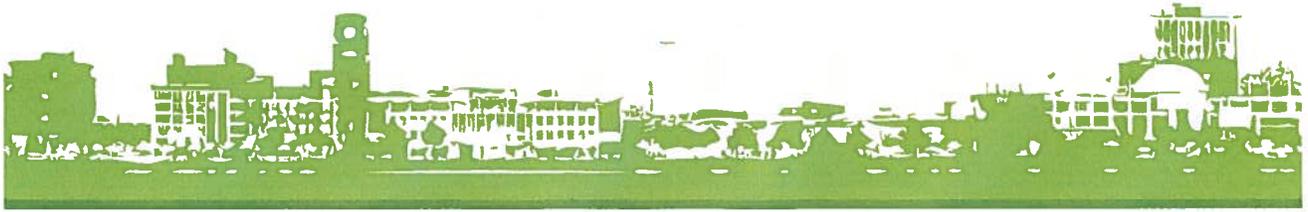
1898: Morris-Delair System

Water pumped to surface from PRM Aquifer

1909: Phila Water Dept

Pumps from PRM Aquifer





What is an aquifer?

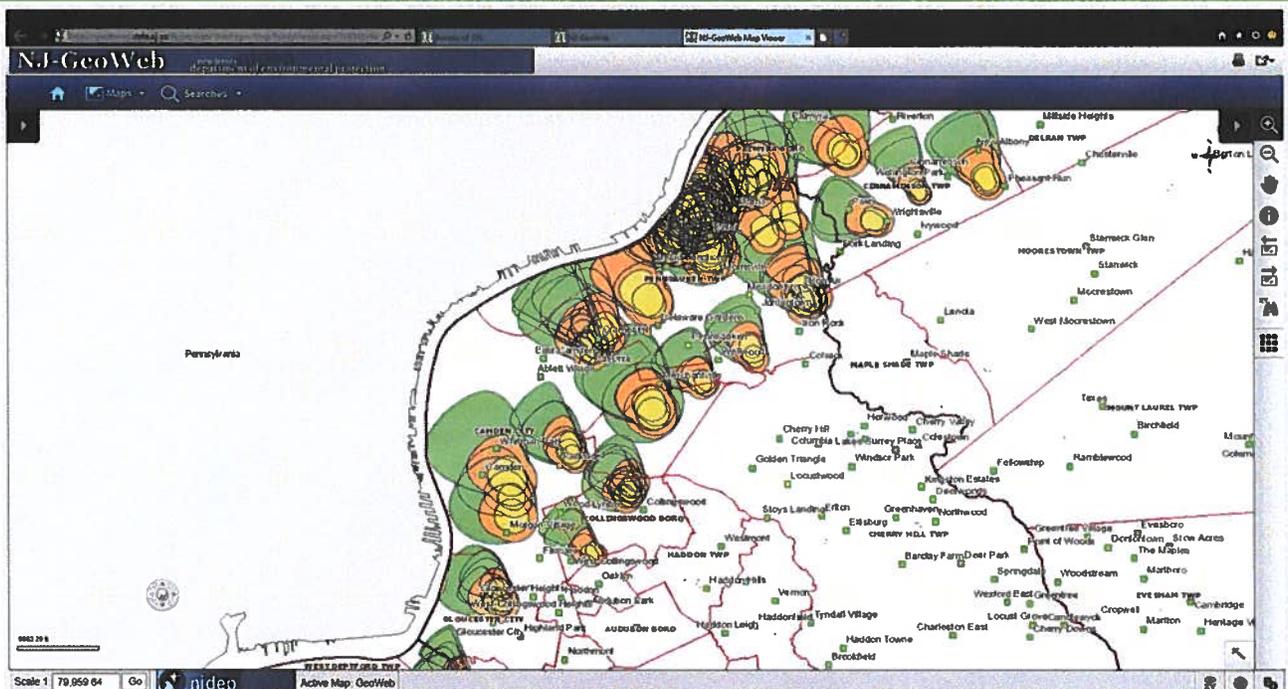
A geological formation that is pumped for water supply.

In Camden city, the Potomac-Raritan-Magothy (PRM) Aquifer is our most important source of drinking water.

...The PRM Aquifer sits directly below us...
...and, it is vulnerable to pollution



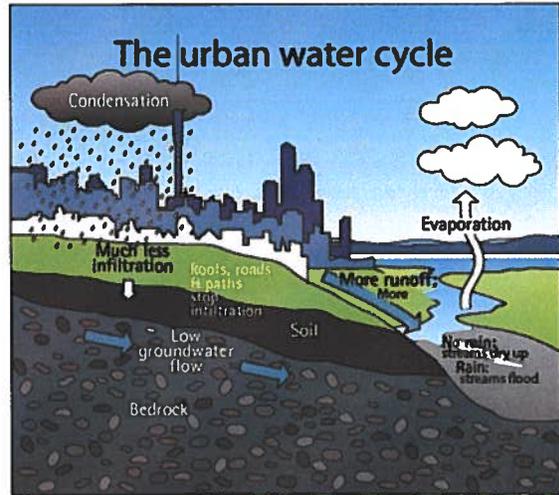
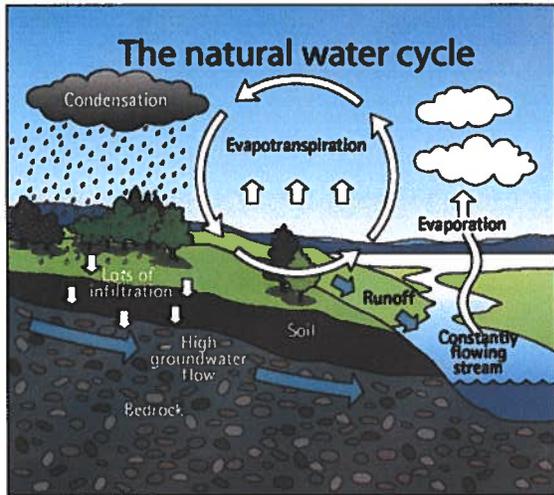
Where do we get our Drinking Water in Camden?



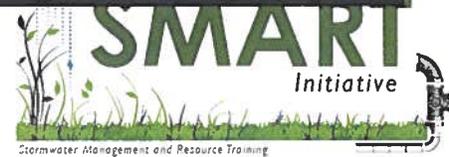
NJDEP Wellhead protection area maps for Camden area water supply wells



Where do we get our Drinking Water?



How rainwater behaves effect our drinking water supply & water quality



How do we use our water resources in NJ?

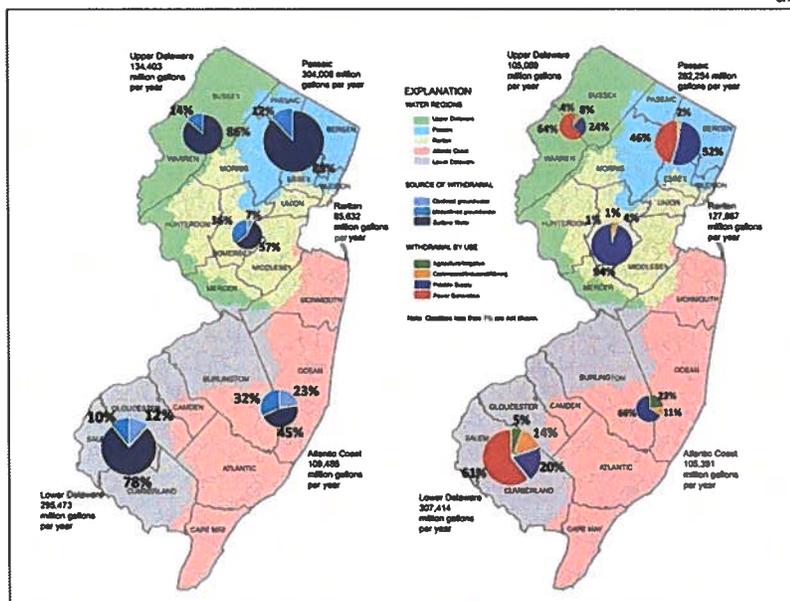
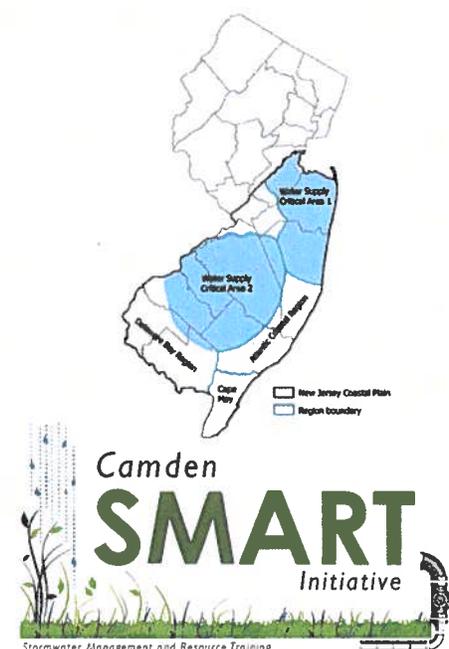


Figure 2.4 (a) Average annual source of water withdrawal by water region, 1990-2015 (millions of gallons).

Figure 2.4 (b) Average annual use of water by water region, 1990-2015 (millions of gallons).





Lead Awareness



Sewage and Stormwater Runoff

- What is sewage?
- What is stormwater runoff?
 - Pervious vs impervious surfaces
 - Pervious: Football field
 - Impervious: Parking lot
- Combined sewer system





Formation of Camden SMART Initiative

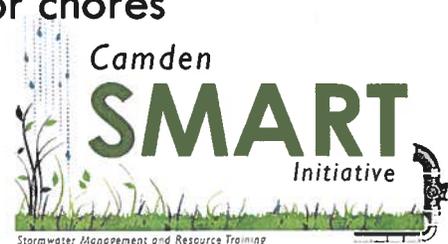
- What is the Camden SMART (Stormwater Management and Resource Training) Initiative?
 - Combined sewer system
 - Combined sewer overflows
 - Green vs grey infrastructure



Green Infrastructure – Rain Barrel



- Rain water harvesting
- 50-gallon barrel
- Uses: watering plants, washing car, etc.
- Reducing water uses for outdoor chores





Green Infrastructure – Rain Garden



- Waterfront South Rain Garden
- Captures stormwater runoff from the street



Green Infrastructure – Trees



- Trees help with stormwater management!
- Absorb extra water during rain events
- Filter pollutants
- Increase rain infiltration into ground water
- Works well with rain gardens and barrels



Green Infrastructure – Park Creation



Completed Projects



- 53 completed green infrastructure projects citywide
- 1,700+ trees planted
- 63+ million gallons



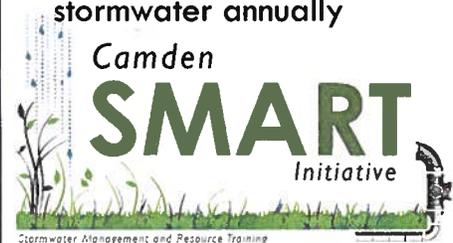


Cramer Hill

<https://www.youtube.com/watch?v=rULgne7stg4>



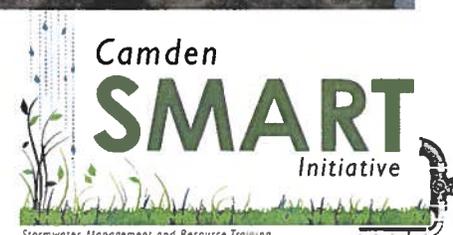
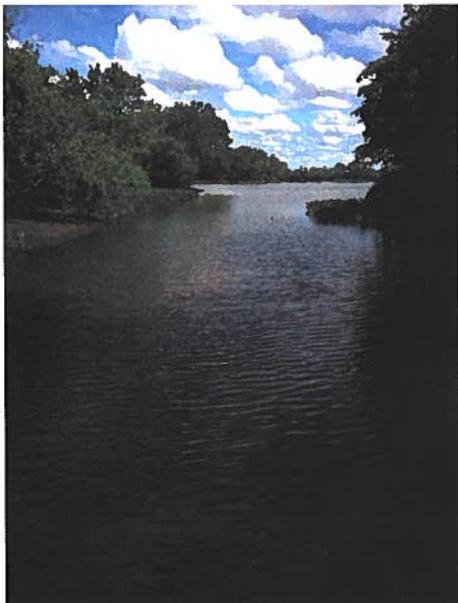
- History of Cramer Hill
 - How Von Niede Park became a Park
- What problems do we see in Cramer Hill?
- What are the resident's top priorities?
- Von Niede Park – Baldwin's Run 50 million gallons of stormwater annually



Stormwater Management and Resource Training



Green Infrastructure – Daylighting Stream



Stormwater Management and Resource Training



What types of green infrastructure do we have at Brimm?

Rain Garden	81,000 gallons managed annually
Stormwater Planter Box and Porous Pavement	121,774 gallons managed annually
Rain Barrel	50 gallons managed per rainfall event
Total gallons of stormwater captured annually	202,824



How can YOU help?



- Report instances of flooding and illegal dumping to Camden SMART Partners by visiting www.CamdenReports.com

<https://www.youtube.com/watch?v=Qrie7lyNR8k&t=28s>





What's Next?

- Today, you will help Camden SMART Partners:
 - Plant Brimm's stormwater planter box
 - Re-fresh Brimm's rain garden (weeding, mulching, and planting)
 - Pledge to report instances of flooding via the Camden Reports application



Appendix 3

CSO Supplemental Information Distributed

Rain Barrel Meeting 6/20/18, English & Spanish, 1,000 copies distributed

Rain Barrel Meeting 5/31/18, English & Spanish, 800 copies distributed

Rain Barrel Meeting for National Community Development Week 4/3/18, 4/4/18 and 4/5/18, 1,200 copies distributed.

Rain Barrel Meeting 4/24/18, English & Spanish, 1,000 copies distributed

Rain Barrel Meeting 4/7/18, English & Spanish, 900 copies distributed

Rain Barrel Meeting 3/20/18, English & Spanish, 1,100 copies distributed

Lead Exposure Information, 20,000 mailed with bill 4/1/18, English & Spanish

Listing of Treatment Plant tours, 11/20/15 through 3/15/18

Audit Report on Environmental Communication 1/20/17

Environmental Policy 1/10/18, 160 copies distributed

Rain Barrel Meeting 2/21/18, English & Spanish, 240 copies distributed

Rain Barrel Meeting 12/12/17, English & Spanish, 1,000 copies distributed

Rain Barrel Meeting 10/17/17, English & Spanish, 1,200 copies distributed

Rain Barrel Meeting 10/07/17, Vietnamese, 500 copies distributed

Rain Barrel Meeting 9/26/17, English & Spanish, 1,400 copies distributed

Rain Barrel Meeting 8/22/17, English & Spanish, 1,100 copies distributed

Rain Barrel Meeting 8/01/17, English & Spanish, 1,100 copies distributed

Rain Barrel Meeting 6/28/17, English & Spanish, 1,200 copies distributed

Circuit Trails 160,000 mailed with bill 3/1/18 & 4/1/18

Gloucester City CSO insert 4,000 mailed with bill 3/1/17

Hidden Treasures Delaware River, 160,000 mailed with bill 12/1/16 & 1/1/17

Fishing Day South Camden flyer 800 distributed 9/1/17

Toilets Are Not Trash Cans, 160,000 mailed with bill 6/1/16 & 7/1/16

EPA Safe Drinking Water Tips, 20,000 mailed with bill 4/1/16

Circuit Trails, 160,000 mailed with bill 3/1/16 & 4/1/16

Camden County Conserves, 160,000 mailed with bill 12/1/15 & 1/1/16

Wonders of the Watershed, 160,000 mailed with bill 3/1/15 & 4/1/15

Appendix 4



What is the Camden SMART Initiative?

The objective of the Camden SMART (Stormwater Management and Resource Training) Initiative is to develop a comprehensive network of green infrastructure programs and projects for the City of Camden.

The Initiative is a collaboration between the City of Camden, Camden County Municipal Utilities Authority, Cooper's Ferry Partnership, Rutgers Cooperative Extension Water Resources Program, New Jersey Tree Foundation, NJ Department of Environmental Protection, our public-private partners, community organizations, and most importantly, Camden residents to restore and revitalize our neighborhoods.

The Initiative includes neighborhood green and grey infrastructure projects, stormwater management policy development, and green infrastructure training programs.

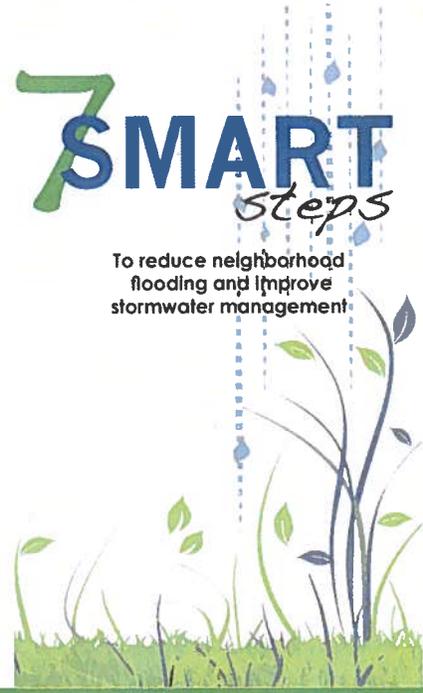
- Camden SMART Initiative:**
- Reduce neighborhood flooding
 - Reduce combined sewer overflows
 - Improve air, water and climate quality
 - Develop sustainable environmental policy
 - Enhance economic development opportunities
 - Add recreational amenities and open space
 - Beautify neighborhoods



A former gas station is now home to four rain gardens of Broadway and Chelton Ave.



Visit Us at www.camdensmart.com



To reduce neighborhood flooding and improve stormwater management

www.camdensmart.com

Did you know?

- Camden has a combined sewer system which makes it more susceptible to backups and flooding. A combined sewer system collects sewage and rainwater in a single pipe system.
- Trash and debris block storm drainage systems, which can lead to flooding. Trash and debris also pollute our local streams and waterways, which can harm the habitat for many species of plants and animals.

Think SMART!
Everyone must do their part!



Rain garden on Park Blvd., Parkside neighborhood

Be SMART! Take Action!

1. Keep Camden Clean

Keep the street clean. Don't throw litter into the street. Take an active role by reporting illegal dumping.

To report dumping call:
PUBLIC WORKS HOTLINE 856-757-7034

2. Clean Your Yard Regularly

Bag, compost or recycle grass, tree limbs, leaves and other yard waste. Uncollected yard waste can clog storm drains when carried by rainwater.

3. Adopt a Drain

Keep your nearest storm drain clear of any debris or trash (including yard waste). Debris blocking the storm drain can easily result in flooding.

4. Collect and Reuse Rainwater

Take an active role in recycling rainwater and install a rain barrel at your home. By collecting rainwater, homeowners can help reduce flooding and pollution in local waterways.

For more information, visit:
www.water.rutgers.edu

5. Plant a Rain Garden

A rain garden allows about 30% more water to soak into the ground than a patch of lawn! Rain gardens also help to remove pollutants from stormwater runoff, protecting local waterways.

For more information, visit:
www.water.rutgers.edu

6. Flood Proof Your Home

Install rain gutters and direct downspouts away from the house. Keep rain gutters clear to prevent blockage. Also grade soil away from your home to prevent basement flooding.

7. Plant Trees and Shrubs

Trees, shrubs, and perennial plants absorb up to fourteen times more rainwater than a typical lawn, and they help to reduce rainwater flow into the sewer system by 35% or more.

Trees available for Camden residents.
For more information, visit:
www.newjerseytreefoundation.org
or call 856-287-4488



to Reduce Neighborhood Flooding

How To Prevent Stormwater Pollution

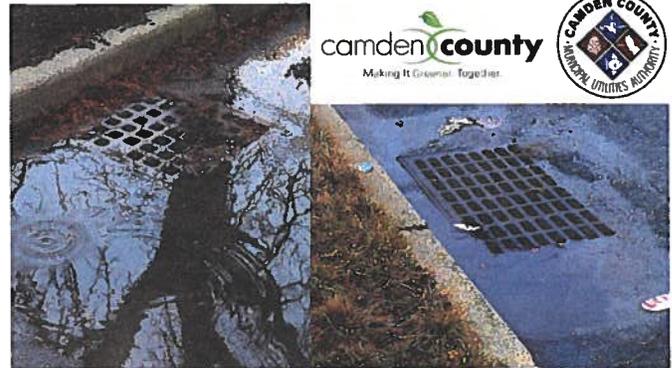
What is stormwater?

Stormwater is water from rain or melting snow that does not soak into the ground. It flows from rooftops, over paved areas, bare soil, and sloped lawns. As it flows, stormwater runoff collects and transports soil, animal waste, salt, pesticides, fertilizers, toxic metals, oil and grease, debris and other potential pollutants. In general, untreated stormwater is unsafe.

What is the problem?

Rain and snowmelt wash pollutants from streets, construction sites, and land into storm sewers. Eventually, the storm sewers empty the polluted stormwater directly into streams and rivers without prior purification or treatment. In Camden and Gloucester City, the sewage and stormwater are combined in the same pipe. During a storm when the flow exceeds the sewers' capacity the untreated sewage and stormwater overflow into the city's waterways and streets.

Polluted stormwater degrades our lakes, rivers, wetlands and other waterways. Untreated stormwater discharging to the ground can contaminate aquifers that are used for drinking water. Nutrients such as phosphorous and nitrogen can cause the overgrowth of algae, resulting in oxygen depletion in waterways. Toxic substances from motor vehicles and careless application of pesticides and fertilizers threaten water quality and can kill fish and other aquatic life. Bacteria from animal wastes and improper connections to storm sewer systems can make lakes and waterways unsafe for wading, swimming and fish consumption. Eroded soil is a pollutant as well. It clouds the waterway and interferes with the habitat of fish and plant life.



People really can make a difference when it comes to reducing stormwater runoff and the problems and costs that go with it. Because we all contribute to the problem, we all can be a part of the solution. It starts with paying attention to stormwater; at home, at work and in our communities.

Tips to prevent stormwater pollution:

- Pick up animal waste.
- Look for ways to keep runoff out of the stormwater system so it can soak into the ground.
- Compost or mulch leaves and yard debris.
- Plant rain gardens, use rain barrels.
- Remove litter from streets, sidewalks, and storm drains adjacent to your property.
- Sweep debris from driveways and parking lots rather than hosing debris into storm drains.
- Water the lawn, not the sidewalk and driveway.
- Reduce paved surfaces.
- Do not drain swimming pools into storm drains or road ditches.
- Reduce winter salt application.
- Triple rinse and recycle empty pesticide and fertilizer containers.
- Reconsider using toxic asphalt sealers, seal cracks only.
- Avoid using chemicals near waterways or storm drains.
- Dispose of automotive fluids appropriately. Fix vehicle fluid leaks immediately.
- Clean up spills immediately and properly dispose of cleanup materials.
- Avoid spraying pesticides/fertilizers in windy conditions or when rain is in the forecast.
- Cover and contain topsoil and mulch during installation.
- Reduce fertilizers, turf builders and pesticides on your lawn and garden. Use small amounts of slow-release fertilizer and environment-friendly products.

Water Conservation Ordinance Adopted by Camden City

Camden City Council recently approved a water conservation ordinance to help alleviate problems with reduced water pressure in times of drought. With the increasing effects of climate change and global warming felt throughout the world, long-term droughts are more likely to occur in the near future. It is critical to have a plan in place to deal with these conditions as they arise.

In addition, conserving water makes financial sense. Not only can you reduce your water bill, but the less water you use means the less water that needs to be treated at the wastewater treatment plant, thus keeping sewer rates in check.

Camden's water conservation ordinance states that, during a drought situation:

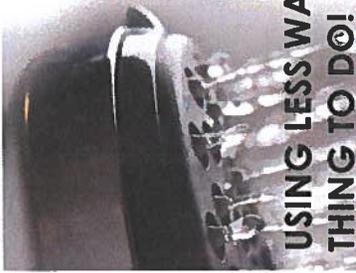
- Lawns may be watered two days per week. Properties with even number addresses may only water on Mondays and Thursdays. Properties with odd number addresses may only water on Tuesdays and Fridays.
- Watering may only be conducted between the hours of 6:00am and 9:00am or between 5:00pm and 8:00pm.
- No single area shall be watered more than 30 minutes per day.
- Flowers and shrubs may be watered as needed with a hand-held hose equipped with an automatic shut-off nozzle.
- No hose or hose-end watering shall be permitted when it is raining.
- Irrigation systems must only run between midnight and 10:00am.

We are asking for your support in adhering to these guidelines. The City is committed to water conservation and encourages residents to get on board. Start saving water and money now! And help us make Camden a sustainable community!

For more information on water conservation, visit www.epa.gov/watersense and www.cleanwaterj.org

For more information on sustainability in Camden, visit www.camdensmart.com





USING LESS WATER IS THE RIGHT THING TO DO!

- It's the right thing to do environmentally as water is a rare and precious resource. When we conserve water, we are saving the planet for our children and for future generations.
- Saving water reduces the potential for flooding of raw sewage during rain events in your town and for your neighbors upstream and downstream because you are using less of the sewer system's finite capacity.
- Saving water reduces sewage pumping costs for your town, which helps keep costs down.
- Saving water reduces pumping and treatment costs for the CCMUA, which helps us keep our rates down.
- Saving water helps save money for you, and keeps money in your pocket.



Flooding in the City of Camden after a typical rain event.

FOR MORE INFORMATION AND WATER SAVING TIPS, VISIT:

www.epa.gov/watersense

www.njwatersavers.rutgers.edu

Camden County Municipal Utilities Authority

1645 Ferry Ave.
Camden, NJ 08104
(856) 541-3700

www.ccmua.org



Making It Better. Together.

CAMDEN COUNTY CONSERVES

Saving Water,
Saving Money



How much can you save?

Approximately 70 percent of water used in a household is used inside the home, with the bathroom utilizing more water than any other room. By replacing older, inefficient bathroom fixtures with WaterSense® labeled fixtures, your household can save in numerous ways.

WATER:



7,000 gallons annually

(enough to wash 6 months worth of laundry)

ELECTRICITY:



200 kilowatt hours annually

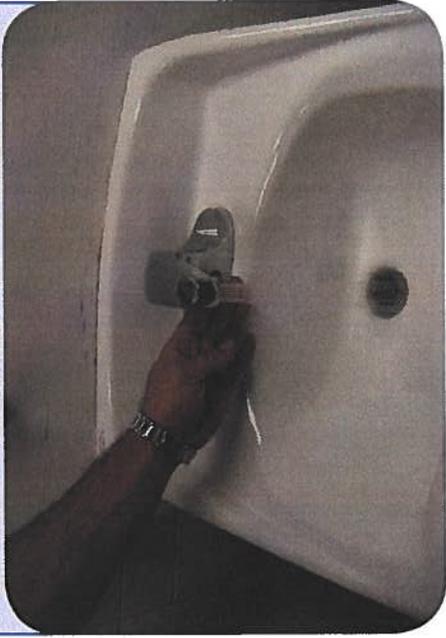
(enough to run a refrigerator for 2 months)

MONEY:



\$80 in utility bills annually

(fixtures pay for themselves in as little as 2 years)



SAVING WATER INDOORS:

- Fix household leaks.
- Always wash full loads for both laundry and dishes.
- Turn the water off while brushing teeth.
- Replace showerheads with low flow showerheads.
- Take shorter showers - five minutes or less is best.
- Avoid using running water to thaw meat or other frozen foods. Instead, defrost food overnight in the refrigerator.
- Purchase a water conservation kit and a leak detector kit. Many water companies offer them to customers at reduced prices.
- Install WaterSense® labeled products to conserve water.
- For commercial properties, refer to the best management practices for buildings that the Environmental Protection Agency (EPA) recommends for federal buildings.
- Refer to the Alliance for Water Efficiency Resource Library for more information regarding specific residential, commercial, and institutional water efficiency (www.allianceforwaterefficiency.org and www.home-water-works.org).

SAVING WATER OUTDOORS:

- Water only when needed; Camden County landscapes need approximately one inch of water per week.
- Water landscapes early or late in the day to reduce evaporation.
- Plant native plants; they are adapted to the region's conditions and require less water.
- Use a shut-off nozzle on your hose.
- Install a rain barrel to water flowers with rainwater collected from rooftops.
- Use fixed spray irrigation on turfgrass only. For all other plants, use drip or micro irrigation.
- Limit turfgrass to 40 percent or less of the total landscaped area.
- Wash vehicles at a car wash that recycles water.



Install a rain barrel at your house!

The more you conserve, the more you save!

What is:
“Flushable?”



TOILETS ARE NOT TRASHCANS™

When you flush your toilet or pour something down the drain of your sink or tub, what you send away disappears from sight and mind. But it's only begun its journey to the CCMUA's wastewater treatment plant in Camden, and beyond. If it's a harmful chemical, it may disrupt the treatment process, or some of it may not be removed, and will pass through into the Delaware River. If it's a solid, greasy, or sticky material that isn't designed to pass through the sewer system, it may not even make it to the plant. That can result in a clog somewhere along the line, and back sewage up into the streets, into your house, or into streets and homes in neighborhoods miles away elsewhere in the county as it travels toward the treatment plant. Clogs from these materials can also happen at the plant itself, creating problems for the whole system.

By giving a little thought to what goes down the toilet and drain, and by disposing of materials properly, you can save yourself from some repair bills; save the environment from unnecessary pollutants; and reduce potential damage to the public wastewater treatment system whose costs end up being charged back to the users—including you.

Just because you can do something doesn't mean that you should do it. You could claim that anything that fits through the hole at the bottom of the toilet bowl is “flushable,” technically. Parents of young children may have experienced keys, golf balls, toys, or clothing go down. But that doesn't mean they're going to be carried through the complicated network of pipes (potentially many miles) until they reach the wastewater treatment plant at the end of the line. Toilet paper is manufactured to disintegrate quickly in water. Paper tissues and towels, sanitary products, and diapers are not. Material can get caught at a sharp turn, or snag on the pipe lining, or tangle with other debris and make a bigger mess that impedes the flow in the pipe and cause partial or complete blockage and backups. The problems can be even bigger as material tries to pass through pumps or other machinery in its travels, and it stops or even damages equipment. Even material that starts out as liquid fats, oils, and greases (“FOG” in the industry lingo) can solidify and clog up the system.

So just because something can disappear down the toilet with a flush, that doesn't mean you should put it there.

These days, the biggest offender is personal hygiene materials advertised as “flushable” **baby or adult wipes**. Sure, it's physically possible to flush them down and out of sight, but once sent on their way through the sewers, “flushable” wipes can do a tremendous amount of damage! Rather than disintegrate, they manage to attach to other material and grow into agglomerations that the sewer systems are not designed to handle. You may have seen the headlines from London over the last few years, where what they call “fatbergs” of fat, wipes, waste, and other items were cleaned out of the London sewer system. The separate instances were described as “the size of a bus,” “the size of a 747,” and “40-metre long fatberg.” The problem has been covered by the New York Times, Washington Post,

the major media networks, and the major national wastewater treatment organizations have instituted campaigns to raise awareness of this real problem. The general rule to follow is **“don’t flush any personal hygiene products other than toilet paper.”**

Drugs and Medications

The US Food and Drug Administration states that disposal by flushing down the toilet is not advised for most drugs because of concerns that trace amounts of drugs can end up in the water supply and in rivers and lakes. That means potentially into the food chain, and ultimately into you and me. Not only humans can be affected. For example, a recent study found that fish whose brains held trace amounts of human anti-anxiety drugs were less effective at seeking shelter from predators. Antibiotic waste, which is associated with antibiotic-resistant bacteria, is also a problem in the wild. The best solution is to bring unwanted pharmaceuticals to a designated drug collection drop off point. Alternatively, you may discard some drugs in household trash after first making them difficult to recover by children, pets, or others seeking drugs. You can do this by first mixing pills or tablets with coffee grounds, kitty litter, dirt, or sawdust, then placing them in a non-leaking container such as a sealable plastic bag before placing them in the regular trash. But they may eventually land up in a landfill and return to the environment anyway. So it’s best to bring them to bring the unwanted drugs to an approved collection point.

New Jersey’s **Project Medicine Drop Program (800-242-5846)** has placed secured drop boxes in the headquarters of local police departments. Consumers from anywhere in New Jersey can visit these boxes seven days a week, to drop off unneeded and expired medications and keep them away from those at risk of abusing them. www.njconsumeraffairs.gov/meddrop

The Camden County Board of Freeholders’ **Addiction Awareness Task Force** aims to provide a safe, convenient, and responsible means of disposing of prescription drugs. No longer needed or outdated prescription drugs in homes are the same drugs that have unfortunately become the target of theft and misuse, oftentimes by people who have access to the residence. America’s 12 to 17 year olds have made prescription drugs the number one substance of abuse for their age group, and much of that supply is coming from the medicine cabinets of their parents, grandparents, and friends. Help us end medicine abuse by disposing of unneeded prescription drugs at a drug drop box near you. The web site list local police departments that provide drop boxes for unneeded or expired drugs: www.addictions.camdencounty.com

More information

To learn more about the problem, visit the CCMUA’s education web page: www.CCMUA.org

(0516) Toilets Are Not Trash Cans logo courtesy of NACWA



Appendix 5

Publication	Source	Web URL (to online source)
Fix a Leak Week 2015, March 16–22, 2015 (3/1/2015)	CCMUA	http://www.ccmua.org/?page_id=1759
Executive Director Andy Kricun to discuss “Promoting Environmental Justice as an Essential Best Management Practice for Utilities in Economically Distressed Communities” (3/11/2015)	AWRA	http://awra-pmas.memberlodge.org/event-1867270
CCMUA joins Value of Water Coalition (3/16/2015)	Value of Water Coalition	http://www.ccmua.org/wp-content/uploads/2015/03/VOW-Relaunch-Press-Release-FINAL.pdf
CCMUA Receives WAVE award from Association of Environmental Authorities of NJ for forward thinking and innovation (3/25/2015)	Camden County	http://sustainable.camdencounty.com/ccmua-wins-aea-wave-award-for-innovation/
Camden SMART partnership to receive NJ Future’s 2015 Smart Growth Award for green and gray stormwater infrastructure program (4/15/2015)	NJ Future	http://www.njfuture.org/smart-growth-101/smart-growth-awards/2015-smart-growth-award-winners/grassroots-collaboration-on-green-infrastructure/
Camden SMART projects highlighted in Earth Week celebration (KYW, 4/21/2015)	KYW	http://philadelphia.cbslocal.com/video/category/latest-videos/11412412-earth-week-celebrations-underway-in-camden-nj/
US EPA recognizes Camden SMART stormwater management program with Environmental Champion Award (4/23/2015)	EPA	https://19january2017snapshot.epa.gov/newsreleases/epa-honors-new-jersey-environmental-champions_.html
Phoenix Park opens on South Camden waterfront (Courier Post, 6/2/2015)	Courier Post	http://www.courierpostonline.com/story/news/local/south-jersey/2015/06/02/phoenix-park-opens-south-camden-waterfront/28371393/
Phoenix Park rises from crumbling industry to create oasis for Camden residents (NJ.com, 6/3/2015)	NJ.com	http://www.nj.com/camden/index.ssf/2015/06/phoenix_park_rises_from_crumbling_industry_to_crea.html

Freeholders Open Park in Camden City (6/4/2015)	Camden County	http://www.camdencounty.com/cou-nty-news/freeholders-open-phoenix-park-camden-city
US EPA releases video on CCMUA adaptation for climate change (Courier Post, 8/4/2015)	Courier Post	http://www.courierpostonline.com/story/news/local/south-jersey/2015/08/04/ccmua-featured-climate-change-video-series/31101889/
CCMUA Net Zero Energy program featured in US EPA video (8/10/2015)	EPA	https://youtu.be/_no2kKYyt6w
CCMUA completes project funded by NJ Environmental Infrastructure Trust to capture 30 tons of solids per year that used to go to Delaware River, Cooper River, and Newton Creek (8/29/2015)	CCMUA	http://www.ccmua.org/?p=165
Rutgers professor highlights CCMUA as a model utility, using capital investment to reduce costs (NJ Spotlight, 9/6/2015)	NJ Spotlight	http://www.njspotlight.com/stories/15/09/02/opinion-nj-should-require-water-utilities-to-spend-more-now-so-they-will-cost-less-later/
National Association of Clean Water Agencies (NACWA) awards CCMUA third consecutive Gold Peak Performance Award for outstanding effluent/water quality performance (9/25/2015)	NACWA	http://www.nacwa.org/about-us/awards/peak-performance-awards/peak-past-honorees
NJ Section of American Water Resources Association presents Excellence in Water Resources Protection and Planning Award to Phoenix Park Project (10/1/2015)	NJAWRA	http://www.ccmua.org/wp-content/uploads/2015/10/NJAWRA-CCMUA-Web-site-display-package.pdf
Association of NJ Environmental Commissions awards CCMUA 2015 Environmental Achievement Award for Phoenix Park project (10/9/2015)	ANJEC	http://anjec.org/pdfs/Congress2015-AchievementAwardWinnersProjects.pdf
"Promoting Environmental and Community Service Leadership as an Essential Best Practice for the Clean Water Utility of the Future," presented by CCMUA Executive Director Andy Kricun to The Funders Network (11/11/2015)	CCMUA	http://www.ccmua.org/wp-content/uploads/2015/11/Environmental-Community-Service-Leadership-11-11-2015-Funders-Network.pdf

CCMUA Honored by Federal Environmental Council for one of most innovative uses of the US EPA's Federal State Revolving Fund in the history of the program (1/13/2016)	Camden County	http://sustainable.camdencounty.com/ccmua-honored-federal-environmental-council/
National Association of Clean Water Agencies (NACWA) Features CCMUA Role Shown In New EPA Video On Sustainable Communities (2/22/2016)	NACWA	http://www.nacwa.org/news-publications/clean-water-current-archives/clean-water-current---february-19
New EPA Video highlights Camden Collaborative Initiative sustainability efforts (2/22/2016)	EPA	https://www.youtube.com/watch?v=vzIJmHhSC3M&feature=youtu.be
CCMUA featured as example in NACWA call for federal action to institute measures to help water utilities transition into 'Utility of the Future' (3/15/2016)		http://www.ccmua.org/wp-content/uploads/2016/03/Trifold.pdf
NJ DEP Water Resource Management quarterly highlights CCMUA's innovative use of state revolving fund for green and grey infrastructure projects (5/2/2016)	NJ DEP	http://www.ccmua.org/wp-content/uploads/2016/05/wrm-quarterly-update-spring2016c.pdf
CCMUA begins upgrade of biosolids treatment with cogeneration technology (Water Online, 5/2/2016)	Water Online	http://www.wateronline.com/doc/new-jerseys-camden-county-municipal-its-wastewater-facility-0001
Article draws sharp contrast between Camden's forward-looking water infrastructure policies and Flint, Michigan's water supply disaster (Water Online, 5/9/2016)	Water Online	http://www.wateronline.com/doc/wema-window-a-tale-of-two-cities-flint-mi-and-camden-nj-0001
CCMUA Executive Director Andy Kricun comments to WHY? Newsworks on importance of rehabilitating Camden's infrastructure (WHYY, 5/13/2016)	WHYY	http://www.newsworks.org/index.php/local/healthscience/93664-renewed-attention-to-water-supply-infrastructure-starting-to-impact-cities-like-camden-nj
Camden Collaborative Initiative awarded EPA's 2016 Environmental Champion Award (5/13/2016)	EPA	https://19january2017snapshot.epa.gov/newsreleases/epa-honors-new-jersey-environmental-champions-0_.html

“Clean water a priority at the CCMUA” (article; must scroll down to page 10) (Cherry Hill Sun, 5/18/2016)	Cherry Hill Sun (scroll down to page 10)	https://www.scribd.com/doc/312524040/CherryHill-0518
NJTV broadcast discusses green infrastructure approach with CCMUA Executive Director Andy Kricun (NJTV, 5/25/2016)	NJTV	http://www.njtvonline.org/news/video/group-eyes-ways-rebuild-preserve-states-old-brittle-water-infrastructure/
CCMUA featured in US EPA blog highlighting successful efforts of utilities to become climate-ready (6/15/2016)	EPA	https://blog.epa.gov/blog/2016/06/protecting-drinking-water-by-becoming-climate-ready/
CCMUA is awarded grant by National Fish and Wildlife Foundation and William Penn Foundation to implement rain barrel program (7/21/2016)	NFWF	http://www.nfwf.org/whoweare/mediacenter/pr/Pages/delaware_16-0720.aspx
WPVI (Philadelphia Channel 6) coverage of NFWF and William Penn Foundation grant to CCMUA for rain barrel program (WPVI, 7/21/2016)	WPVI	http://6abc.com/society/delaware-river-restoration-fund/1435474/
KYW (Philadelphia Channel 3) coverage of NFWF and William Penn Foundation grant to CCMUA for rain barrel program (KYW, 7/21/2016)	KYW	http://philadelphia.cbslocal.com/video/category/spoken-word-kywtv/3434416-grant-will-fund-conservation-projects-in-2017/
CCMUA Executive Director speaks in Washington on infrastructure funding strategies (7/25/2016)	NACWA	http://www.nacwa.org/news-publications/clean-water-current-archives/clean-water-current---july-25
CCMUA awarded with recognition as a Utility of the Future Today (8/2/2016)	Water Resources Utility of the Future Today	http://www.ccmua.org/wp-content/uploads/2016/08/Utility-of-the-Future-Today-Recognitions-Press-Release-8-9-16-with-Recipients-list.pdf
CBS 3 News report on CCMUA’s Cramer Hill Nature Preserve (KYW, 8/15/2016)	KYW	http://philadelphia.cbslocal.com/2016/08/15/camden-sewerage-nature/
35-Acre Cramer Hill Nature Preserve to be created in Camden by CCMUA (Courier Post, 8/16/2016)	Courier Post	http://www.courierpostonline.com/story/news/local/2016/08/12/camden-waterfront-access-preserve/88626726/

New Waterfront Park Coming to Camden City (8/23/2016)	Camden County	https://web.archive.org/web/20160831161501/http://www.camdencounty.com:80/county-news/new-waterfront-park-coming-camden-city
From wastewater treatment plant to nature preserve (Philly.com, 8/25/2016)	Philadelphia Inquirer	http://www.philly.com/philly/news/new_jersey/20160824_From_wastewater_treatment_plant_to_nature_preserve.html?mc_cid=6c15a851e6&mc_eid=e8a2df0487
National water industry magazine highlights Camden green stormwater infrastructure program as example for other economically stressed cities (Water World, 8/29/2016)	Water World	http://www.waterworld.com/articles/print/volume-32/issue-8/features/aren-t-you-swale.html
CCMUA featured in Government Technology magazine article on planning for climate change consequences (Government Technology, 9/2/2016)	Government Technology	http://www.govtech.com/fs/Predicting-the-Unpredictable-How-Data-Based-Forecasting-Helped-One-Town.html
Cramer Hill Camden property to become nature preserve (Philadelphia Inquirer, 9/26/2016)	Philadelphia Inquirer	http://www.philly.com/philly/columnists/kevin_riordan/20160925_Where_the_bald_eagle_and_owl_dwell_in_Camden.html
CCMUA noted as EPA CREAT case study (10/3/2016)		http://www.nacwa.org/news-publications/clean-water-current-archives/clean-water-current---october-3
CCMUA's Phoenix Park Phase 1 project featured in Delaware Valley Green Building Council Green Stormwater Infrastructure precedent library (dvgbc.org, 1/8/2017)	Delaware Valley Green Building Council	https://dvgbc.org/sites/default/files/images/policyflipbook/index.html?page=52
Camden SMART Stormwater Management Projects featured in New Jersey League of Municipalities conference session (1/8/2017)	Sustainable Jersey	http://www.sustainablejersey.com/fileadmin/media/Events_and_Trainings/Awards_Ceremony/NJLM_Sessions/2016/FINAL_SW_Mgmt_Role_in_Comm_Health.pdf

CCMUA implementation of CSO Long Term Control Plan is listed among top commitments in statewide water infrastructure effort (JerseyWaterWorks.org, 1/8/2017)	Jersey Water Works	http://www.jerseywaterworks.org/our-work/2017-commitments/
NJ Department of Environmental Protection recognizes CCMUA for Environmental Stewardship (2/7/2017)	NJ DEP	http://www.ccmua.org/wp-content/uploads/2017/02/NJDEP-Envir-Stewardship-Recognition.pdf
CCMUA and Rutgers Cooperative Extension Water Resources Program collaborate on Camden green infrastructure projects (2/7/2017)	Rutgers Cooperative Extension Water Resources Program	http://www.water.rutgers.edu/Water_Pages/Enewsletters/E-Newsletter_V38_20170119.pdf
CCMUA Executive Director Andy Kricun to receive 2017 Leadership in GSI (Green Stormwater Infrastructure) award from Sustainable Business Network of Philadelphia (4/19/2017; updated 1/23/2018)	Sustainable Business Network of Philadelphia	http://gsipartners.sbnphiladelphia.org/leadership-in-gsi-2017-excellence-in-gsi-awards-ceremony/
Water Utility of the Future Today compendium highlights CCMUA achievements (4/19/2017)	WEF	http://www.wef.org/globalassets/assets-wef/3---resources/for-the-public/utility-of-the-future/2016-summary-uotf-today-honorees-final.pdf
Water Resources Association of the Delaware River Basin awards 2017 Achievement Award to Camden SMART Initiative (4/19/2017)	Water Resources Association of the Delaware River Basin	http://www.wrdrb.org/calendar_dtl.php?id=23&d=2017-04-19
Board of Public Utilities funds CCMUA community microgrid feasibility study (7/10/2017)	Military-Technologies.net (NO LONGER AVAILABLE)	http://www.military-technologies.net/2017/07/05/n-j-board-of-public-utilities-highlights-development-of-town-center-distributed-energy-resource-microgrids-with-tour-of-proposed-downtown-trenton-microgrid/

Clean water industry group releases report on environmental justice and community service featuring CCMUA efforts (7/24/2017)	NACWA	http://www.nacwa.org/news-publications/clean-water-current-archives/clean-water-current/2017/07/18/nacwa-releases-environmental-justice-community-service-compendium
US Senate Hears Testimony from CCMUA Executive Director Andy Kricun on need to fund improvements to nation's aging water infrastructure (7/24/2017)	Camden County	http://www.camdencounty.com/us-senate-hears-testimony-ccmua/
CCMUA receives 2016 NACWA Gold Peak Performance award (7/25/2017)	NACWA	http://www.nacwa.org/about-us/awards/peak-performance-awards/peak-2017-honorees
State announces study of microgrid to connect CCMUA with other facilities for energy resiliency (9/8/2017)	SNJ Today	http://www.snjtoday.com/story/36315005/state-officials-announce-start-of-camden-microgrid-study
CCMUA Executive Director Andy Kricun stresses critical need for independent power source in planning for microgrid (9/12/2017)	Daily Energy Insider	https://dailyenergyinsider.com/news/7752-new-jersey-board-public-utilities-approves-feasibility-study-camden-county-microgrid/
Camden Sewage Treatment Plant To Go Off Power Grid By 2019 (9/28/2017)	KYW	http://philadelphia.cbslocal.com/2017/09/28/camden-sewage-treatment-plant-to-go-off-power-grid-by-2019/
US Water Alliance spotlights CCMUA commitment to local revitalization through partnerships (9/30/2017)	US Water Alliance	http://uswateralliance.org/resources/one-water-spotlight-camden-county-municipal-utilities-authority-september-2017
CCMUA keeping rates stable and building the local workforce (in new EPA Report "Water Infrastructure Financial Leadership: Successful Financial Tools for Local Decision Makers," p. 32) (10/2/2017)	EPA	https://www.epa.gov/sites/production/files/2017-09/documents/financial_leadership_practices_document_final_draft_9-25-17_0.pdf
CCMUA Becomes First Authority in State to be Energy Independent (CamdenCounty.com) (10/3/2017)	Camden County	http://www.camdencounty.com/ccmua-becomes-first-authority-state-energy-independent/
Camden County Utilities Authority Goes Off-Grid with \$40M Sustainability Loop (NJ Pen) (10/3/2017)	NJ Pen	http://www.njpen.com/camden-county-utilities-authority-goes-off-grid-with-40m-sustainability-loop/

Camden County Takes Steps to Get Off the Grid (SNJ Today) (10/3/2017)	SNJ Today	http://www.snjtoday.com/story/36477983/camden-county-takes-steps-to-get-off-the-grid
Camden Sewage Treatment Plant To Go Off Power Grid By 2019 (CBSPhilly.com) (10/3/2017)	KYW	http://philadelphia.cbslocal.com/2017/09/28/camden-sewage-treatment-plant-to-go-off-power-grid-by-2019/
Camden County MUA Moves To Be Energy Independent by 2019 (10/3/2017)	NACWA	http://www.nacwa.org/news-publications/news-detail/2017/10/03/camden-county
Camden County MUA says energy independent in 2019 (Courier Post) (10/3/2017)	Courier Post	http://www.courierpostonline.com/story/news/2017/09/28/camden-county-utilities-authority-savings/711842001/
Wastewater for electricity: South Jersey utility in swap deal with trash-to-energy plant (Philly.com) (10/3/2017)	Philadelphia Inquirer	http://www.philly.com/philly/business/energy/wastewater-for-electricity-south-jersey-utility-in-swap-deal-with-trash-to-energy-plant-20170928.html
Article on Green Infrastructure Investment Analysis for Camden (Urban Planning) (10/12/2017)	Urban Planning	https://www.cogitatiopress.com/urbanplanning/article/view/1038
CCMUA mentioned in NAPA report on Community Affordability of Clean Water Services (11/15/2017)	NACWA	http://www.nacwa.org/docs/default-source/conferences-events/Hot-Topics-in-Clean-Water-Law-Webinar/2017-11-15napa_report.pdf?sfvrsn=2
CCMUA addresses Camden City sewer overflow problem (12/11/2017)	NJ Pen	http://www.njpen.com/a-plan-to-end-sewer-overflow-in-camden/
Phoenix Park 'Rises from the Ashes,' Opens in Camden (12/12/2017)	SNJ Today	http://www.snjtoday.com/story/37051571/phoenix-park-rises-from-the-ashes-opens-in-camden
In the shadow of a Camden waste treatment plant, a park opens (12/12/2017)	Courier Post	http://www.courierpostonline.com/story/news/local/south-jersey/2017/12/12/shadow-camden-waste-treatment-plant-park-opens/941599001/

Final phase of Phoenix Park in Camden opens (12/12/2017)	Camden County	http://www.camdencounty.com/free-holders-open-final-phase-phoenix-park-camden/
Access Opened Up to Riverfront and Parks (12/29/2017)	Camden County	http://www.ccmua.org/wp-content/uploads/2018/01/Nash-Retrospect-Riverfront-Access-Column-2017-12-29.pdf
Study shows that optimal maintenance of Camden City's sewer system would reduce 90% of community and street flooding (1/10/2018)	Jersey Water Works	http://www.jerseywaterworks.org/resource/impact-proper-maintenance-combined-sewer-overflow-system-flooding-city-camden/
CCMUA projects highlighted in "New Report Analyzes the Financial Benefits of Investing in Water Infrastructure" (New Jersey Municipalities) (2/21/2018)	Jersey Water Works	http://www.jerseywaterworks.org/wp-content/uploads/2018/02/NJ-Municipalities-Magazine-February-2018-David-Zimmer.pdf
US EPA report highlights CCMUA in A Wet Weather Case Study of Incorporating Community Interests into Effective Infrastructure Decision-Making (3/2/2018)	EPA	https://www.epa.gov/sites/production/files/2018-01/documents/camden_case_study-1-16-18.pdf
Camden SMART Initiative Revitalizes, Extends City's Open Spaces (3/19/2018)	NJ Spotlight	http://www.njspotlight.com/stories/18/03/18/camden-smart-initiative-revitalizes-extends-city-s-open-spaces/?mc_cid=b755c9fe6d&mc_eid=e8a2df0487
Park Projects Connect Camden to Delaware River (3/23/2018)	Camden County	http://www.ccmua.org/wp-content/uploads/2018/04/Retrospect-article-2018-03-23.pdf
Camden Finds Strength in Its Partners (4/2/2018)	NJ Spotlight	http://www.njspotlight.com/stories/18/04/01/camden-finds-strength-in-its-partners/
Camden's Vision for a Sustainable Future (4/9/2018)	NJ Spotlight	http://www.njspotlight.com/stories/18/04/08/camden-s-vision-for-a-sustainable-future/

National study on affordability of utility rates highlights CCMUA (4/25/2018)	Univ. of NC Environmental Finance Center	https://efc.sog.unc.edu/project/navigating-legal-pathways-rate-funded-customer-assistance-programs
US Water Alliance designates CCMUA to lead Camden Taskforce (one of only six in the nation for this initial year) to develop and promote equitable water management (5/11/2018)	US Water Alliance	http://uswateralliance.org/initiatives/water-equity/taskforce
Brookings Institution recognizes CCMUA's lead role in Camden Collaborative Initiative to strengthen the city's infrastructure and economy (5/14/2018)	Camden County	https://www.brookings.edu/blog/the-avenue/2018/05/14/the-water-workforce-opportunity-how-camden-is-driving-collaborative-solutions-around-its-infrastructure-and-economy/
Camden SMART Initiative to hold free rain barrel workshop	TAPintoCamden	https://www.tapinto.net/towns/camden/articles/camden-smart-initiative-to-hold-free-rain-barrel
Camden's Free Rain Barrel Program Will Help You Conserve Water	SJ Magazine	https://sjmagazine.net/news-features/camdens-free-rain-barrel-program-will-help- conserve-water

Appendix 6

Camden County Municipal Utilities Authority

SUMMER 2018 PAID INTERNSHIP OPPORTUNITY

FOR CAMDEN CITY HIGH SCHOOL STUDENTS



Program Description

The Camden County Municipal Utilities Authority Green Ambassadors Program engages Camden City youth by providing a green-collar job opportunity. The youth participate in hands-on work experience and classroom-style environmental education that introduces them to environmental issues, solutions, and careers. By participating in this program students work to transform the city into a greener, cleaner, safer community while experiencing meaningful employment and education opportunities.

Sample projects include:

- Maintaining parks and green infrastructure throughout the city.
- Conducting community outreach for local environmental projects.
- Installing rain gardens.
- Assisting local urban agriculture initiatives.
- Canoeing tours of vulnerable Camden waterways.
- Engaging in recycling projects.
- Touring environmental protection facilities.
- Learning about environmental science principles and careers from local, state, and national agencies.

Participants

The Green Ambassadors Program will employ a team of approximately 20 youth. Participating youth must be current high school students, including 2018 graduates. Participants will be responsible for meeting the performance expectations that focus on the knowledge, skills, and abilities that are required to complete assigned activities and projects.

Camden County Municipal Utilities Authority

Program Details

- The program is 6 weeks long with approximately 25 hours per week
- Start Date: June 28th
- End Date: August 3rd
- Typical work day is from 9am – 2pm (may vary)
- Compensation: \$9.00 per hour

How to Apply – Due June 8th

1) Complete the attached Job Application

2) Complete a Personal Essay (1 page or less) answering the following questions:

a. What do you hope to learn and what do you hope to accomplish by participating in this program?

b. What do you believe are the greatest environmental challenges faced by your community, and how do you see yourself contributing to the solutions?

c. What personal characteristics do you possess that you believe will benefit the program and why? What personal limitations do you believe can be improved through your participation in the program?

3) Submit the completed Job Application and Personal Essay to the front desk at 1645 Ferry Ave, Camden (CCMUA Administration Building) or scan and email to tfeeney@ccmua.org.

4) Attend a **mandatory** Information Session at 6:00pm June 13th at the CCMUA 1645 Ferry Ave, Camden NJ. Parents are highly encouraged to attend.

5) Submit the following: Working papers (these can be obtained from your school), Photo I.D. Card, Social Security Card, and Verification of Residency (Bring these to the Information Session).

Applications are due no later than June 8th, 2018

You will be notified of employment by June 12th, 2018

For additional program information contact:

Tim Feeney

Camden County MUA

1645 Ferry Ave, Camden NJ

tfeeney@ccmua.org

856-541-3700 ext. 1272

Camden County Municipal Utilities Authority

*Applying for a job **DOES NOT** guarantee the applicant a job.*

Required documents: Copy of Social Security Card, Birth Certificate, Photo I.D., Proof of Residency (ex. Progress report, report card, transcript, school mail, etc.), and Signed Work Permit.

PLEASE WRITE CLEARLY

Youth Applicant: _____ Date of Birth: _____

Home Address: _____

Home Phone #: _____ Cellular Phone #: _____

Name of School You Attend: _____

Parent/Guardian Name: _____

What knowledge, skills, and abilities do you have that you believe will be an asset to this job: _____

List your employment experience:

Position	Organization	Date(s)
_____	_____	_____
_____	_____	_____
_____	_____	_____

List your community service experience:

What did you do?	With Whom	Date(s)
_____	_____	_____
_____	_____	_____
_____	_____	_____

Have you at any time ever been arrested? (circle one) YES NO
Explain: _____

Are you aware of any personal characteristic or behaviors that would cause a threat to you or others? YES NO
Explain: _____

Are you aware of any reason why you should not work with other youth or adults? YES NO
Explain: _____

Are you aware of any physical characteristics that would disallow you to complete work that requires you to be outdoors, lifting/carrying materials, near or in water, and/or hiking on uneven terrain? YES NO
Explain: _____

References (Other than relatives), at least two (2):

Name/Relationship	Address	Phone#
_____	_____	_____
_____	_____	_____
_____	_____	_____

Camden County Municipal Utilities Authority

Verification and Release

I acknowledge that the Camden County Municipal Authority is relying on the accuracy of the information I provide on the Green Jobs Application Form. Accordingly, I attest and affirm that the information I provide is absolutely accurate and true.

I authorize the CCMUA to contact any person or entity listed on the Green Jobs Application Form, and I further authorize any such persons or entity to provide the CCMUA with information, opinions, and impressions relating to my background or qualifications.

I voluntarily release the CCMUA and any such person or entity listed on the Green Jobs Application Form from liability involving the communication of information relating to my background or qualifications. I further authorize the CCMUA to conduct a criminal background check if such a check is deemed necessary.

Printed Name: _____

Signature: _____ Date: _____

Appendix 7



Forming and Utilizing Your Supplemental CSO Team For New Jersey's Combined Sewer Overflow (CSO) Permits and Long Term Control Plans

The Supplemental CSO Team is a resource to you. The Supplemental CSO Team will be beneficial in soliciting input from the public throughout the Long Term Control Plan (LTCP) process, and will enable you to better develop an outreach program that reaches a broad base of citizens. Through the Supplemental CSO Team, you, as the permittee will gain a public perspective on CSOs, local water quality issues and sewer system problems, and the public's willingness to participate in efforts to eliminate CSOs.

The members of the Supplemental CSO Team are not expected to be experts on CSOs or have extensive engineering backgrounds to participate. Members should be representative of the permitted communities or areas served by the sewage treatment plant. The Supplemental CSO Team can provide local information on flooding issues, neighborhood priorities, and community willingness to accept or participate in CSO alternatives (such as building or maintaining green infrastructure).

The Supplemental CSO Team, as part of your public participation process, is a two way dialogue and an opportunity for you to share information about your work and an opportunity for the team to provide input.

The Supplemental CSO Team should be provided with information to help it better understand the issues, costs, and operation of the collection and treatment systems. The Supplemental CSO Team should be aware of the various permit milestones and due dates. These milestones include installation of signs, public participation plan, the characterization of the combined sewer system, evaluation of alternatives analysis to reduce or eliminate CSOs, selecting alternatives, and implementation schedule, for example.

**Excerpt from Section G.2.c of the NJPDES CSO Permit (see <http://www.nj.gov/dep/dwq/cso.htm>)
describing the Supplemental CSO Team**

The permittee shall invite members of the affected/interested public to establish a Supplemental CSO Team to work with the permittee's assigned staff from Section F.1 and to work as an informal work group as a liaison between the general public and the decision makers for the permittee. The goals of the Supplemental CSO Team could consist of the following elements:

- i. Meet periodically to assist in the sharing of information, and to provide input to the planning process;*
- ii. Review the proposed nature and extent of data and information to be collected during LTCP development;*
- iii. Provide input for consideration in the evaluation of CSO control alternatives; and*
- iv. Provide input for consideration in the selection of those CSO controls that will cost*



Should a regional Supplemental CSO Team be formed that incorporates several hydraulically connected communities or would multiple supplemental teams be more effective?

It is up to you. Regional teams, if created, should be reflective of the various communities, populations, and social and environmental needs of the areas served by the sewage treatment plant.

Community-based Supplemental CSO Teams, as opposed to a regional Supplemental CSO Team, may be more effective if the communities in the hydraulically connected region:

- are unique;
- are geographically distant;
- are large in size or population;
- have widely diverse or various priorities; and/or
- have many active groups.

Both community-based and regional Supplemental CSO Teams may be needed in some cases. Community-based teams can be utilized to reach a more localized population, while a representative from the community-based team can participate in the regional Supplemental CSO Team as well.

Justification regarding the composition of the Supplemental CSO Team or Teams should be articulated in the public participation plan, as well as a discussion of the goals of the Supplemental CSO Team, feedback received so far from the Supplemental CSO Team, and frequency and type of team interaction.

Who should be involved in the Supplemental CSO Team?

The Supplemental CSO Team should be customized to meet your needs and the needs of your community. Consider inviting individuals or group representatives to participate in the Supplement CSO Team who have been involved in your past public participation efforts or who are currently involved with or concerned about CSOs and related issues (such as redevelopment, environmental improvement, waterfront access, community engagement, stormwater, or economic development).

The structure, organization and responsibilities of the Supplemental CSO Team should be representative of the issues and possible alternatives. The Supplemental CSO Team should represent the community's diverse perspectives and address the needs of the affected public. When considering the makeup of your Supplemental CSO Team you should keep in mind that pursuant to Section II.C.2 of the National CSO Policy, the affected public includes rate payers, industrial users of the sewer system, persons who reside downstream from the CSOs, persons who use and enjoy these downstream waters, and any other interested person.

Consider including representatives from the following interest groups:

- Community/neighborhood groups
- Environmental groups
- Recreational Water Users
- Business, Industry, and Redevelopment community
- Local Institutions (ex: academic, business, healthcare)
- Representatives of Local Government
- Faith based and social service based organizations

The optimum size of the Supplemental CSO Team can be determined by you but each team should be diverse and representative of the population served while still small enough to have effective meetings and dialog among the team members.



When inviting the public to participate on the Supplemental CSO Team, share with them what they should expect by participating and how much time they should plan to dedicate to this effort. Keep in mind that the public participation process will involve more than the Supplemental CSO Team. Therefore, if there are members of the public that are unable to commit to the Supplemental CSO Team, they should be invited to participate in the broader public participation effort.

Several CSO communities may have teams formed around issues related to CSOs, such as a community based green infrastructure team, municipal action team, or green team. These teams may or may not include the diversity of representatives that are needed for the Supplemental CSO Team. Evaluate how best to utilize and build off of these existing teams.

What frequency should my Supplemental CSO Team meet?

The role of the Supplemental CSO Team may differ among permittees and their participation in the LTCP development process should correlate with the area impacted; the number of people impacted; and resources needed to implement the LTCP. The Supplemental CSO Team should meet as often as needed for the team to ultimately be able to meaningfully provide input on the evaluation of CSO alternatives. However, the Department would expect the Supplemental CSO Team to meet in person no less than when important milestones and reports are completed throughout the LTCP development process. The Supplemental CSO Team may need to meet frequently in the beginning of the LTCP development process in order to establish goals and learn about the LTCP and less frequently while studies and reports are being conducted and developed. As the time approaches to evaluate and provide input on alternatives, the Supplemental Team may need to again meet more frequently. Meeting types and locations may differ from one permittee to another as well as from one task to another throughout the LTCP process. In person meetings might be the primary way for the Supplemental CSO Team to operate. There are other methods that may be helpful to share information and gain feedback from the Supplemental CSO Team, such as conference calls, emails, online surveys and website updates, among others.

Meetings held on a consistent schedule and at a convenient location enable continued participation. Weekend and evening meetings may work best for your team members. When selecting a meeting location think about if the location is accessible via public transportation, has free parking, and does not require extensive security checks.

Who should facilitate the Supplemental CSO Team?

It is ultimately your responsibility to ensure that the Supplemental CSO Team is conducted and facilitated so that all permit requirements are met. The Supplemental CSO Team could be led by staff within your organization or municipality or by hired professionals. Whomever you choose to lead your Supplemental CSO Team, you should seek individuals that have the following facilitation skills:

- experience engaging with the public;
- ability to translate complex issues;
- facilitate and encourage active listening and;
- accepting of different perspectives and ideas.



What's the Supplemental CSO Team's role in public participation?

The Supplemental CSO Team will be a great asset for developing and implementing parts of the public participation process. Members of your Supplemental CSO Teams are likely to be members of other networks and can be conduits for sharing information with their peers and neighbors. Providing feedback on community reaction, effective ways to share information, and input on your public participation strategy are great ways to utilize the Supplemental CSO Team. You may find that your Supplemental CSO Team will assist you in public participation activities.

The Supplemental CSO Team will be beneficial in soliciting input from the public throughout the planning process, and will enable you to better develop an outreach program through public meetings and public hearings that reaches a broad base of citizens. By using the Supplemental CSO Team to develop and implement a larger public engagement process, you will gain a public perspective on local water quality issues and sewer system problems, the amount of public concern about CSOs in particular, and the public's willingness to participate in efforts to eliminate CSOs.



Supplemental Team Examples

CSO communities in other states have implemented networks similar to Supplemental CSO Teams. The following two examples can provide helpful information on how to organize and utilize these teams. Links are provided for additional information on Philadelphia and Nashville’s public participation process for developing their Long Term Control Plans and engaging the public.

Philadelphia, PA



Business

- Building Industry Association

Citizen Groups

- Northern Liberties Neighborhood Association
- Passyunk Square Neighbors Association
- Washington West Civic Association

Interest Groups

- Community Legal Services, Inc.
- Delaware River City Corporation
- Impact Services Corporation
- PennFuture (Next Great City)
- Pennsylvania Environmental Council
- Tookany/Tacony-Frankford Watershed Partnership
- Schuylkill River Development Corporation
- Sierra Club

Regulatory Agencies

- Pennsylvania Department of Environmental Protection (PADEP)

Local Government Agencies

- Fairmount Park Commission
- Mayor’s Office of Sustainability
- Philadelphia Water Department

See table 2-1 at the following link for the advisory committee membership:

<http://www.phillywatersheds.org/ltcp/LTCP Section02 Public%20Participation.pdf>

The Public Participation Program Team assembled a diverse group of stakeholders to comprise the *Green City, Clean Waters* Advisory Committee. The committee consists of key city, state and community representatives (including civic organizations in neighborhoods affected by sewage backups during intense rainstorms), as well as leaders of local, regional and national environmentally -minded organizations. Targeted efforts were made to invite civic leaders of the impacted neighborhoods (and who represent ratepayers), industrial users, and organizations that represent people that live near and use the impacted areas. A majority of the representatives who actively participate on the advisory committee belong to organizations whose missions concentrate on civic and environmental issues. (Section 2.2.1, page 2-4)

This is an example of an advisory committee or local stakeholder team. Your Supplemental CSO Team is likely to include many of these sub-groups and it is important for local decision makers (City Council, Planning Boards, Zoning Boards, Redevelopment Committees, to name a few) to either be a part of this group or ensure its involvement in the LTCP development through other methods.



Nashville, TN

Nashville developed a Citizens Advisory Committee along with many other public engagement activities. Their Citizen Advisory Committee was designed “to extend the public engagement initiative far into communities, and to generate the most thorough input from residents, businesses, neighborhood associations, and other organizations. These were individuals who were recognized as leaders and experienced conveners in their respective neighborhoods. In this case, these leaders and their respective organizations were located throughout the urban core, the most affected areas of the LTCP Update.” (Section 8.3) Members included representatives from faith based organizations, academia, historic committee, metropolitan council, neighborhood and park organizations, transit authority, health department, and business groups to name a few.

<http://www.cleanwaternashville.org/content/resources/pdfs/pdr/LongTermControlPlan.pdf>

8.2 Public Engagement Highlights

From fall of 2009 through the spring 2011, MWS, supported by its consultant team, conducted a public engagement and input campaign, the highlights of which include:

- Created a Citizens Advisory Committee (CAC) to participate and be the primary community voice in the campaign on an ongoing basis. This group includes representatives from neighborhood and business organizations, professional experts, river users, and community stakeholders.
- Developed the “Clean Water Nashville” theme for the campaign.
- Organized a series of ongoing community meetings throughout Nashville’s urban core, which is the combined sewer system (CSS) area. These meetings introduced the community to the LTCP Update program and provided ongoing updates; the final report will be the subject of a future meeting.
- Made presentations to Nashville’s leading environmental groups.
- Engaged more than a dozen leading neighborhood associations, and more than ten major Nashville area business organizations.
- Involved all district Metro Council members in the affected CSS areas.
- Involved the Public Works Committee Chairman of the Metro Council as a leader in the public process.
- Developed Web and Public Access Television programming, including an on-line catalog of LTCP Committee and CAC activity.
- Collected meaningful input from stakeholder groups that has helped shape the overall LTCP plan and its recommendations.

Appendix 8

Scott Schreiber

From: Caldarelli, Adriana <Adriana.Caldarelli@dep.nj.gov>
Sent: Monday, March 20, 2017 2:58 PM
To: Scott Schreiber
Cc: Andy Kricun; Doug Burns; Pepe, Rachael; Feltis, Jennifer
Subject: RE: CSO Supplemental Team

Scott,

The revisions look great. I ran it by our experts and they agree that the supplemental team can and should evolve as the process does, so I think you should go ahead and schedule a kickoff meeting to get the process started. We could throw out as a discussion point during the kickoff meeting whether the invitee list is inclusive enough and take suggestions. For instance, Jennifer Feltis suggested that we may want to engage large property owners near outfalls, like marinas, etc., so perhaps the group could provide suggestions and feedback.

Let me know if you need anything else.

Sincerely,

Adriana Caldarelli

NJDEP Division of Water Quality
Office of the Assistant Director, Water Pollution Management Element
401 E. State St
PO Box 420, Mail Code 401-2B
Trenton, NJ 08625
609-422-7671
609-777-0432 (fax)



From: Scott Schreiber [mailto:sschreiber@ccmua.org]
Sent: Monday, March 20, 2017 11:59 AM
To: Caldarelli, Adriana <Adriana.Caldarelli@dep.nj.gov>
Cc: Andy Kricun <andy@ccmua.org>; Doug Burns <doug@ccmua.org>
Subject: CSO Supplemental Team

Adriana,

Andy, Doug and I wanted to follow up on the previous comments offered by you and the public participation experts at the NJDEP by submitting a revised roster of potential Camden City CSO Supplemental Team participants (below). Our goal is to be responsive to the NJDEP guidance document *Forming and Utilizing Your Supplemental CSO Team* and the aforementioned NJDEP comments offered after our initial submission of potential participants. We made every effort to be more inclusive of the types of individuals and entities that are represented while creating this revised potential roster. Further, it is our intention to have an initial meeting with this group of community leaders and ask them to reach

out to colleagues and/or residents who live in the City of Camden and invite them to all future meetings. In other words, we do not view the CSO Supplemental Team as a static group of individuals or entities but rather an evolving one which aims to address the concerns of residents and rate payers of the City. We very much look forward to receiving your comments. Thank you.

Best Regards,
Scott Schreiber

Entity	Individual(s)/Organizations
Camden City	Uzo Ahirakwe, Patrick Keating, Joe Thomas
American Water	James Cowley
Camden City Public Schools	Brendan Lowe
Camden SMART	Camden City, CCMUA, Cooper's Ferry, Rutgers, NJ Tree Foundation, NJDEP
NJ Conservation Foundation	Olivia Glenn
Camden Redevelopment Agency	James Harveson
Center for Aquatic Sciences	Brian DuVall and/or Angela Wenger
Urban Trekkers/Urban Boat Works	Jim Cummings
Camden Block Supporter Initiative	Pino Rodriguez
Kroc Center – Camden	Demetrius Marlowe
Center for Environmental Transformation	Teresa Niedda
The Neighborhood Center	Christa Galvin
Rutgers University	Student Recommended from Faculty/Staff

Scott Schreiber
Director of Administrative Operations
Camden County MUA
1645 Ferry Avenue
Camden, NJ 08104
P - 856-583-1261
F - 856-964-1829

Appendix 9

Entity

American Water
Camden City
Camden City Public Schools
Camden Kroc Center
Camden Redevelopment Agency
Center for Aquatic Sciences
Center for Environmental Transformation
Cooper's Ferry Partnership
New Jersey Conservation Foundation
NJ Tree Foundation
NJDEP
Rutgers University
Rutgers Water Resource Program
The Neighborhood Center
Urban Promise

Individuals

James Cowley
Uzo Ahirakwe, Patrick Keating, Joe Thomas
Brendan Lowe
Demetrius Marlowe
James Harveson
Brian DuVall
Teresa Niedda
Meishka Mitchell, Sarah Bryant, Caroline Gray
Olivia Glenn
Lisa Simms
Franklin McLaughlin, Adriana Caldarelli, Armando Alfonso
Larry Gaines
Jeremiah Bergstrom
Amelia Kaselaan
Jim Cummings

Appendix 10



THE CAMDEN COUNTY MUNICIPAL UTILITIES AUTHORITY

1645 Ferry Avenue • Camden, NJ 08104
Phone (856) 541-3700 • Fax (856) 964-1829
www.ccmua.org

April 7, 2017

Delivered via Email

Olivia Glenn
Regional Manager, South Jersey Metro
New Jersey Conservation Foundation
170 Longview Road
Far Hills, NJ 07931

Re: Combined Sewer Overflow Supplemental Team

Dear Ms. Glenn:

A handwritten signature in black ink that reads "Olivia".

The New Jersey Department of Environmental Protection has issued new permits to all entities which own combined sewer outfalls. One of the goals of these new permits is to significantly reduce the frequency and volume of combined sewage overflows (CSO) that enter receiving streams and rivers during wet weather. The City of Camden and the Camden County MUA (CCMUA) are working together on a Long Term Control Plan which, when completed, will provide a blueprint that will allow the City and the CCMUA to be in compliance with the permit, reduce or eliminate CSO events, improve the water quality of the receiving streams and, most importantly, eliminate combined sewage street flooding.

An integral part of the Long Term Control Plan is to solicit public participation via a CSO Supplemental Team. Through the CSO Supplemental Team, the City and the CCMUA will gain a public perspective on CSOs, local water quality issues and sewer system problems including flooding. Members of the CSO Supplemental Team are not expected to be experts or engineers but will be expected to provide information on neighborhood priorities and input on possible CSO alternatives like green infrastructure.

Are you willing to be a CSO Supplemental Team Member?

If so, the City of Camden and the CCMUA will invite you to several meetings over the next year and will also ask you to invite other members of the community you feel should be included in the process of creating the Long Term Control Plan. It is my hope that upon completing this voluntary service all CSO Supplemental Team members will have a better understanding of the combined sewer system, the permitting process, the goals of the Long Term Control Plan and, most importantly, will help guide the City and the CCMUA on selecting ways that meet both the local needs and desires and that effectively control CSOs and flooding.

Please let me know if you would like to join by emailing me at andy@ccmua.org. Thank you very much for considering this important community service.

Best Regards,

A handwritten signature in black ink that reads "AK".

Andrew Kricun, P.E., BCEE
Executive Director/Chief Engineer
Camden County Municipal Utilities Authority



Making It Better. Together.

www.camdencounty.com

Appendix 11

Camden City - CCMUA CSO Supplemental Team

Kick Off Meeting
May 25, 2017
CCMUA Administration Building

Agenda

- ▶ -Combined Sewer Systems
- ▶ -Combined Sewer Overflows
- ▶ -Combined Sewage Flooding
- ▶ -The Long Term Control Plan
- ▶ -The Role of the CSO Supplemental Team
- ▶ -Topics for Future Meetings
- ▶ -Inviting Community Members to Future Meetings

What is a Combined Sewer System (CSS)?

The Environmental Protection Agency Defines a CSS as:

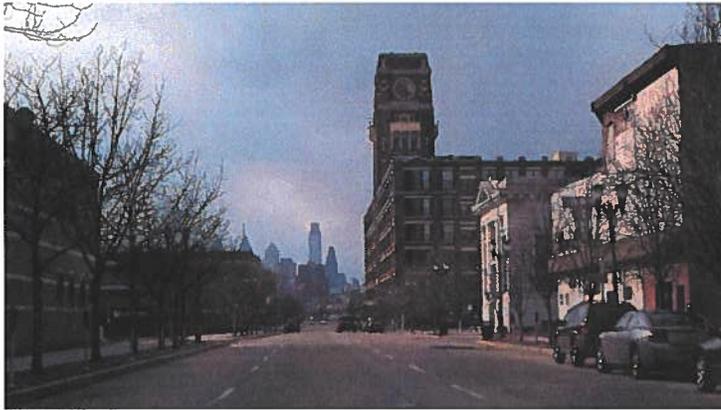
- ▶ A combined sewer system (CSS) collects rainwater runoff, domestic sewage, and industrial wastewater into one pipe. Under normal conditions, it transports all of the wastewater it collects to a sewage treatment plant for treatment, then discharges to a water body. The volume of wastewater can sometimes exceed the capacity of the CSS or treatment plant (e.g., during heavy rainfall events or snowmelt). When this occurs, untreated stormwater and wastewater, discharges directly to nearby streams, rivers, and other water bodies.
- ▶ Combined sewer overflows (CSOs) contain untreated or partially treated human and industrial waste, toxic materials, and debris as well as stormwater. They are a priority water pollution concern for the nearly 860 municipalities across the U.S. that have CSSs.

CSSs Used to be State of the Art

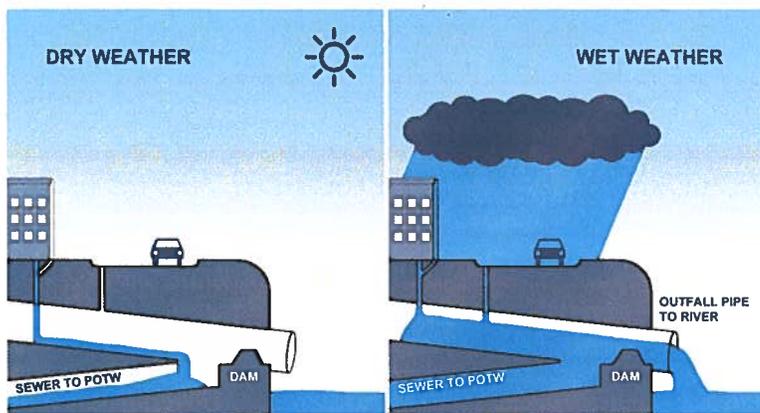


www.getty.com - D97W2K

But Not Anymore



Combined Sewer Overflows



Total Overflow - Camden City & CCMUA

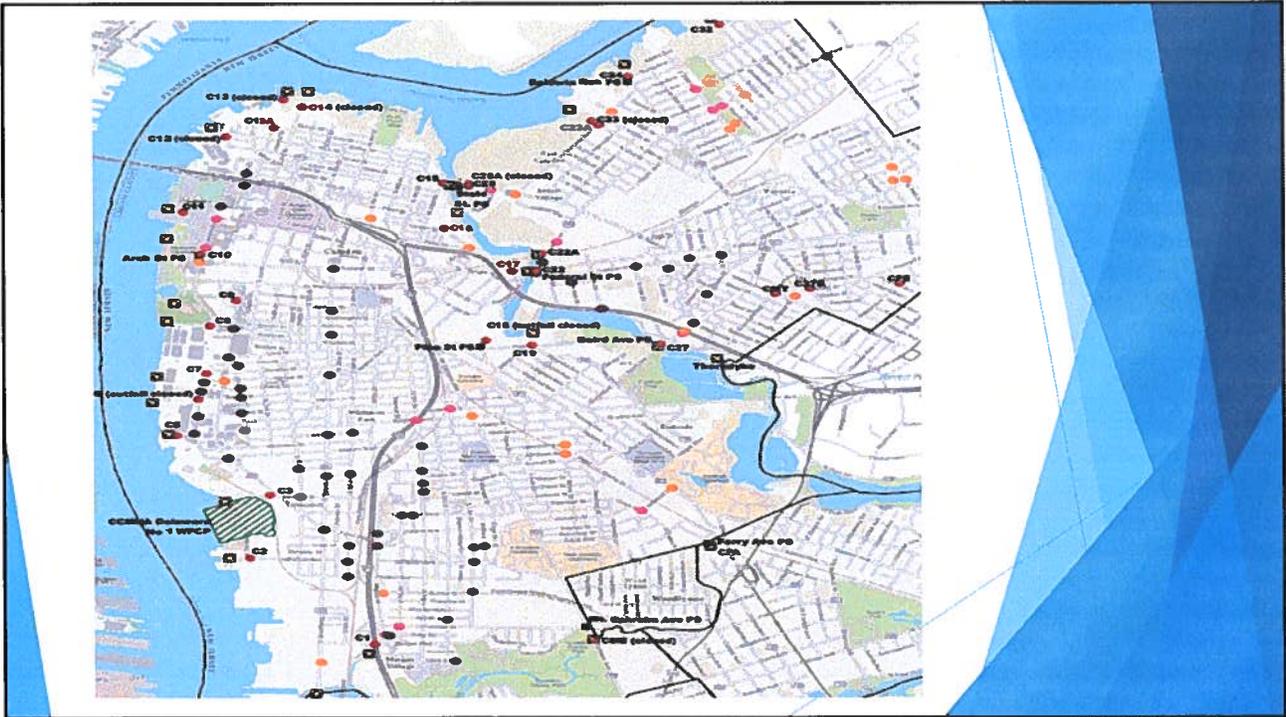
- ▶ 833 Millions of Gallons per Year Overflow into Cooper River, Delaware River and Newton Creek
- ▶ 23 Outfalls Overflow on Average 37 Times Per Year

Overflows by Receiving Stream

- ▶ Cooper River
 - ▶ 9 CSO Outfalls
 - ▶ 274 MGY
 - ▶ Average of 46 Events per Outfall
- ▶ Delaware River
 - ▶ 12 CSO Outfalls (11 Camden City, 1 CCMUA)
 - ▶ 509 MGY
 - ▶ Average of 36 Events per Outfall
- ▶ Newton Creek
 - ▶ 2 CSO Outfalls
 - ▶ 50 MGY
 - ▶ Average of 30 Events per Outfall

Combined Sewage Flooding

▶ <https://youtu.be/m2j8UGGZqGY>



The Long Term Control Plan



Characterization, monitoring, and modeling of the combined sewer system



Public participation



Consideration of sensitive areas



Evaluation of alternatives to meet CWA requirements



Cost/performance considerations



Operational Plan



Maximizing treatment at the existing wastewater treatment plant



Implementation schedule



Post-construction compliance monitoring program

Public Participation The CSO Supplemental Team

Excerpt from Section G.2.c of the NIPDES CSO Permit (see <http://www.ni.gov/dcp/dwa/cso.htm>) describing the Supplemental CSO Team

The permittee shall invite members of the affected/interested public to establish a Supplemental CSO Team to work with the permittee's assigned staff from Section F.1 and to work as an informal work group as a liaison between the general public and the decision makers for the permittee. The goals of the Supplemental CSO Team could consist of the following elements:

- i. Meet periodically to assist in the sharing of information, and to provide input to the planning process;*
- ii. Review the proposed nature and extent of data and information to be collected during LTCP development;*
- iii. Provide input for consideration in the evaluation of CSO control alternatives; and*
- iv. Provide input for consideration in the selection of those CSO controls that will cost*

Topic for Next Meeting:

Section 7 - Sensitive Areas

CCMUA will evaluate the receiving stream reaches to which its CSOs discharge to identify any areas which may be defined as sensitive areas pursuant to the 1994 CSO Control Policy (59 FR 75-18692):

- i. Outstanding National Resource Waters;
- ii. National Marine Sanctuaries;
- iii. Waters with threatened or endangered species or their designated critical habitat;
- iv. Primary contact recreation waters, such as bathing beaches;
- v. Public drinking water intakes or their designated protection areas;
- vi. Shellfish beds.

The locations of CSOs vis-à-vis the sensitive areas, the nature of the sensitive areas and the available information regarding CSO impacts on any sensitive areas that are identified will be detailed in the System Characterization Report. The databases and records searches used to identify sensitive areas will be documented in the report. Sources will include the published reports and databases identified in Table 1, as well as information from the municipalities, stakeholders and public comments to identify any conditions which may include those of sensitive areas as defined in the CSO Policy, e.g. primary contact recreation.

Please Invite Community
Members to
Future Meetings

Thank you!

Appendix 12

Sensitive Areas Meeting: 12/13/17

Name	Organization
Jose Santiago	Block Supporters Initiative
Destiny Wilson	Urban Promise Academy
Hope Lugo	Urban Promise Academy
Jeremiah Bean	Urban Promise OEL
Jim Cummings	Urban Promise OEL
Meredith Brown	NJ Tree Foundation
Jessica Franzini	Camden Lutheran Housing
Jeremiah Bergstrom	Rutgers Camden
Carlos Morales	Heart of Camden
Teresa Nieda	Center for Environmental Transformation
Demetrius Marlowe	Salvation Army Kroc Center
Olivia Glenn	NJ Conservation Foundation
Pat Keating	Camden City
Armando Alfonso	NJDEP
Shaza Qizvi	NJDEP
Susan Rosenwinkel	NJDEP
Josie Horowitz	NJDEP
Tim Feeney	CCMUA
Doug Burns	CCMUA
Scott Schreiber	CCMUA
Andy Kricun	CCMUA

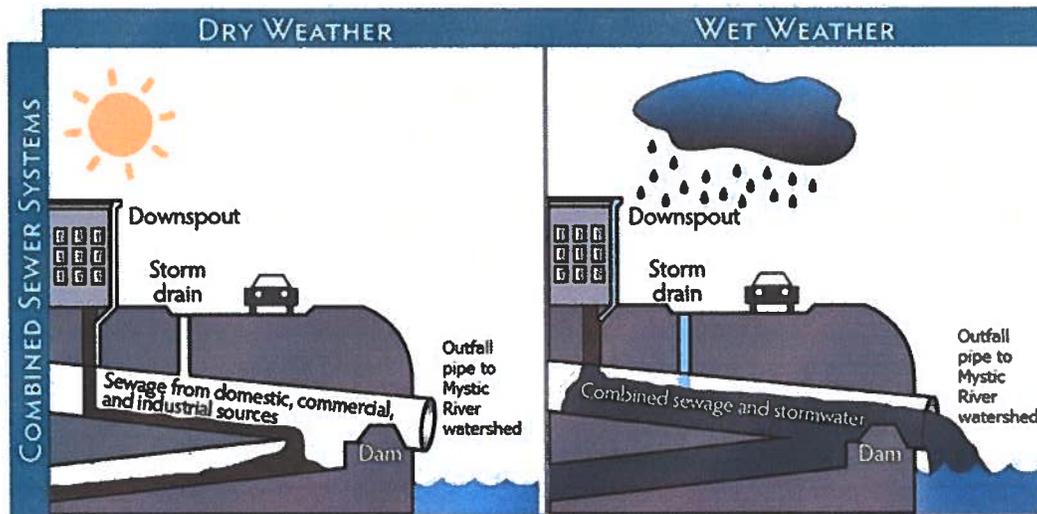
Appendix 13

CSO Supplemental Team

Sensitive Areas Identification

12/13/17 Meeting

Combined Sewer Overflows



Long Term Control Plan



Supplemental CSO Team

- “Members should be representative of the permitted communities or areas served by the sewage treatment plant. The Supplemental CSO Team can provide local information on flooding issues, neighborhood priorities, and community willingness to accept or participate in CSO alternatives (such as building or maintaining green infrastructure).”



Sensitive Areas

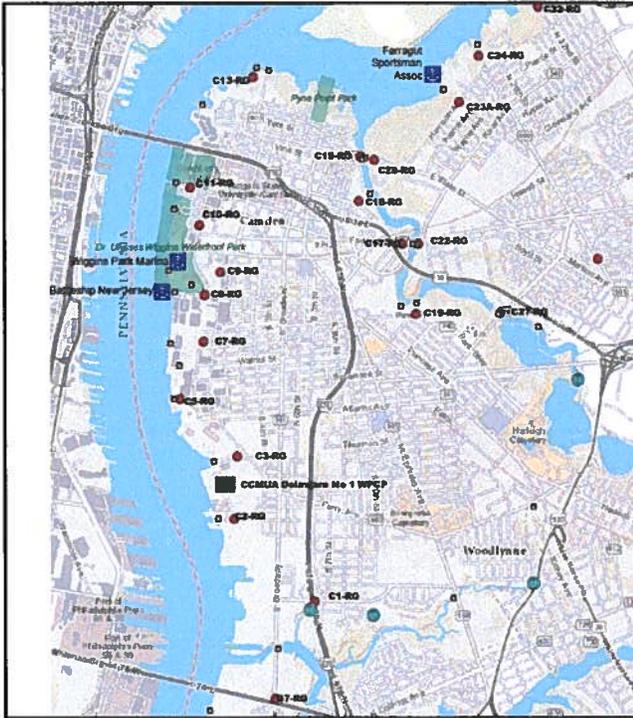
- 1) Outstanding National Resource Waters
- 2) National Marine Sanctuaries
- 3) Threatened or Endangered Species Habitat
- 4) Public Drinking Water Intakes
- 5) Shellfish Beds
- 6) Primary Contact Recreation





Primary Contact Recreation

- Swimming, Boating, Fishing etc.
- Philadelphia Control Plan Example:
 - “An annual triathlon is held in the Schuylkill River above Fairmount Dam. This area is upstream of PWD’s CSO outfalls on the Schuylkill River. Occasional primary contact recreation occurs in Cobbs Creek and Tacony-Frankford Creek. These activities are unsafe in addition to exposing recreators to potentially unsafe levels of pathogens in wet weather. The City is addressing these concerns through education, signage, and enforcement.”



Questions for us:

- Where do people canoe/kayak?
- Where do people fish?
- Where do people swim?
 - Official/Annual Events? Informally?

 Treatment Plant	 Park, Recreation Area
 Regulator Structure	 Natural Heritage Priority Site
 Discharge Point	
 Marinas	
 Head of Tide	

Appendix 14



Newton Creek Access Points

- Johnson Blvd Recreation Dev Canoe Access
- Reverend Evers Park Access Point
- Gloucester City Little League Majors Field



Cooper River Access Points

- Cramer Hill Waterfront Park
- Kaighn Ave Dam Access
- Gateway Park Proposed Access



Back Channel Access Points

- Pyne Poynt Park
- 36th St

