Supplemental CSO Team

Meeting No. 3
Long-Term Control Plan Permit Compliance

City of Elizabeth and
Joint Meeting of Essex & Union Counties (JMEUC)

January 29, 2018 – 1:00 pm
Elizabeth City Hall Council Chambers

Supplemental CSO Team

Meeting No. 3 Agenda

- Prior meeting recap
- Further input on public outreach opportunities
- Further input on potential sensitive areas
- System characterization and modeling updates
- NJ CSO Group coordination
- Green Infrastructure (GI) basics
- Upcoming deadlines

Meeting No. 2 Refresher

Material covered in the prior meeting (10/11/2017):

- CSO outfall locations
- Sewer sampling summary
- Modeling updates (Elizabeth and JMEUC)
- Recent and pending sewer improvement projects
- Input on public outreach opportunities
- Input on potential sensitive areas
- 6-month look-ahead

Any questions on previous topics?

Public Involvement Activities

Prior Meeting Comments

- Provide info on pending construction projects
- Send info to Elizabeth Chamber of Commerce for membership distribution
- Distribute info at Peterstown Community Center nature center and Phil Rizzuto Park outdoor pavilion
- Post info on City's social media pages
- Consult environmental planning commission and master planners

Opportunities for public engagement on CSO Long-Term Control Plan

- Upcoming Events?

Public Involvement Activities (cont.)

Community Interface Assistance

- Any feedback from your groups on the CSO issues?
- What info do Team members need to facilitate public input?
- What other resources are available?

Input on sewer system issues to be addressed

- Areas of flooding
- Sewer backups
- Sewer infrastructure age & deterioration
- Sewer bills

Sensitive Areas Consideration

- Sensitive Areas, as defined by the CSO Control Policy, include:
  - Outstanding National Resource Waters
  - National Marine Sanctuaries
  - Waters with threatened or endangered species and their habitat
  - Waters with primary contact recreation
  - Public drinking water intakes or their designated protection areas
  - Shellfish beds
- Are sensitive areas present and impacted by CSO discharges?

Sensitive Areas Consideration

Prior Meeting Comments

- Fishing at Slater Park and Waterfront Memorial Park has been observed.
- Jet skiing through the Arthur Kill has been observed.
  - Occasional and unusual use.
- No specific outfall appears to be of greater concern, higher priority, or exceptional quality

Outstanding National Resource Waters

- First and most protective tier of antidegradation protection;
- Applied to surface waters classified as freshwater 1 (FW1) waters, also known as non-degradation waters, and Pinelands (PL) waters;
- None present in City of Elizabeth

Nationwide Rivers Inventory (NRI)

- Listing maintained by the National Parks Service;
- Includes about 67 New Jersey river sections, at approximately 490 river miles;
- None present in the City of Elizabeth

National Marine Sanctuaries

- None located in New Jersey; closest is Stellwagen Bank, off the coast of Massachusetts
  - More information available on-line at: http://www.sanctuaries.nos.noaa.gov/

Waters with Threatened or Endangered Species and their Habitat

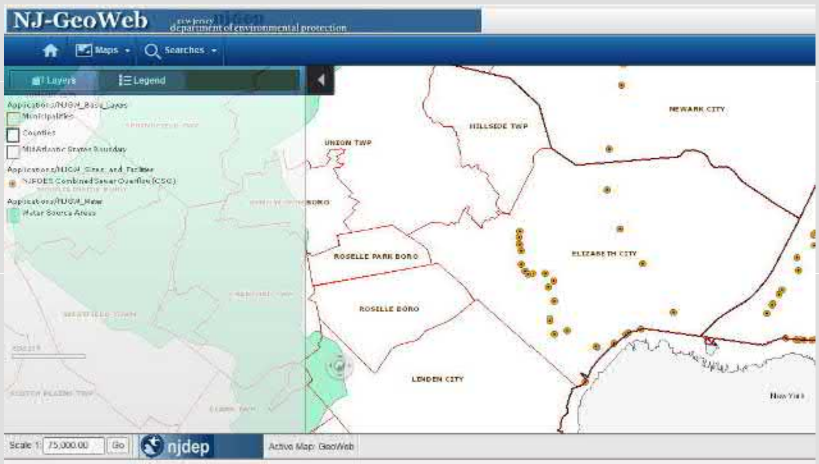
- Determine whether listed species are located in the area by checking the Endangered Species Act listings
- Review NJDEP Landscape Project critical wildlife habitat maps
- No presence of threatened or endangered species and critical habitat for specific outfall location anticipated

Are waters used for Primary Contact Recreation?

- N. J. A. C. 7:9B -1.4: “Primary contact recreation” means water related recreational activities that involve significant ingestion risks and includes, but is not limited to, wading, swimming, diving, surfing, and water skiing.
- Focus on existing uses, versus designated use.
  - No bathing beaches present.
  - Channelized portion of Elizabeth River upstream of South Broad Street designated FW2-NT(C2), but no existing primary contact use. No access, concrete base and walls, shallow water depth.
  - Downstream earthen channel of Elizabeth, SE3 (C2), no access, shallow depth.
  - Arthur Kill and Newark Bay – industrial / commercial shipping waterway.

Public Drinking Water Intakes

- No public drinking water source intake located within 1 mile upstream of City of Elizabeth CSO

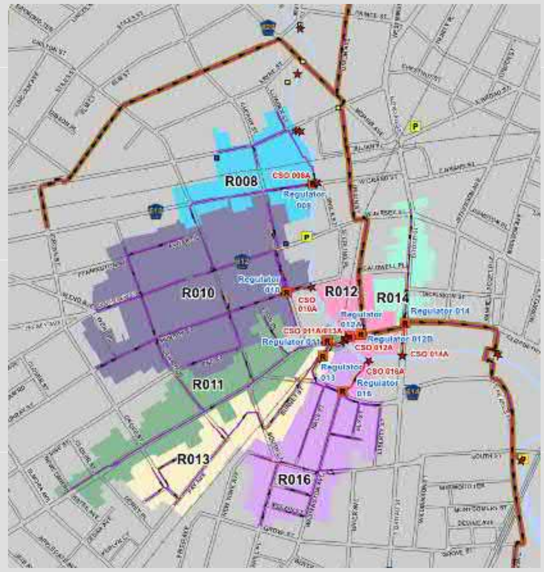


Shellfish Classification

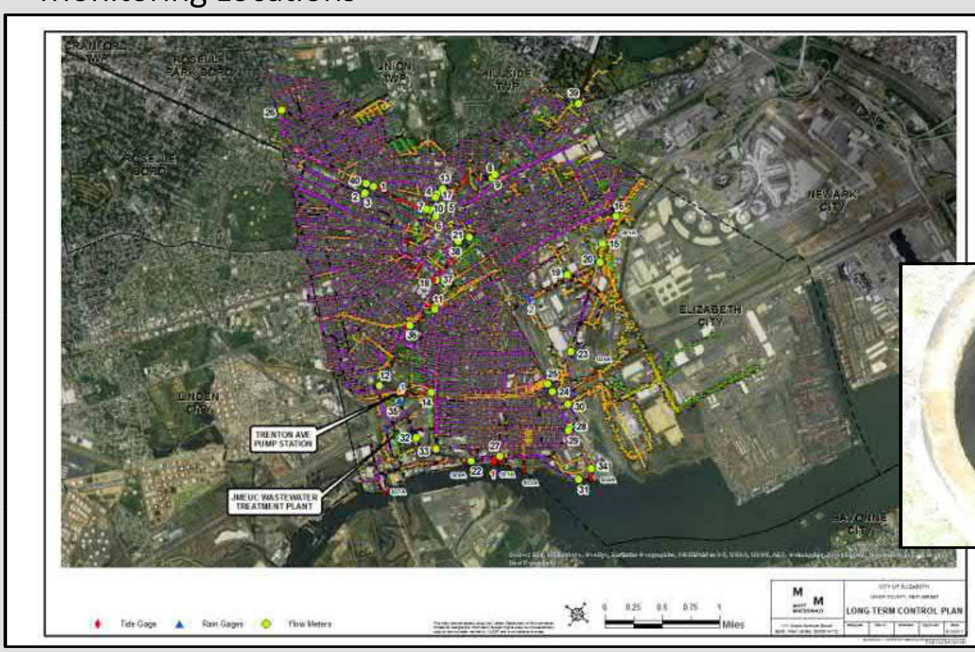
- Classification of the coastal waters for shellfish harvest in accordance with N.J.A.C. 7:12-1.3.
- None present in City of Elizabeth vicinity

System Characterization Status Update
City of Elizabeth

- Completed sewer data collection
- Confirmed and updated sewer shed and regulator details
- Expanded geographic information system
- Compiled sewer inventory data
- Calibrated and validated model
- Preparing characterization report sections



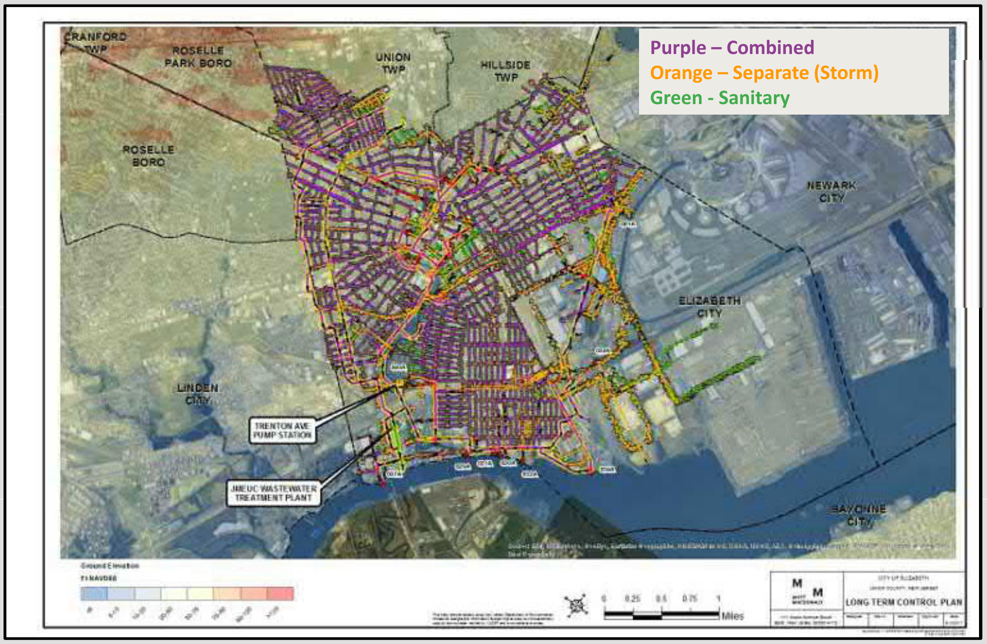
Monitoring Locations



FLOW METERS

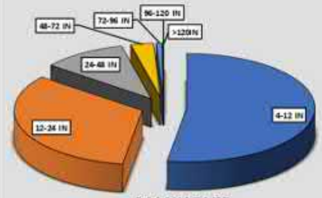
FLOW METER LOCATION	COUNT
DWF	14
EAST-INT	6
OVERFLOW	10
STORM	4
WEST-INT	6
Grand Total	**40**

Existing Sewers



PIPES

TYPE	COUNT	LENGTH (LF)
Combined	6,352	766,035
Sewage	517	63,646
Storm	4,566	309,228
Grand Total	11,435	1,138,909



MANHOLES

TYPE	COUNT
Combined	5,858
Sewage	457
Storm	1,193
Grand Total	7,508

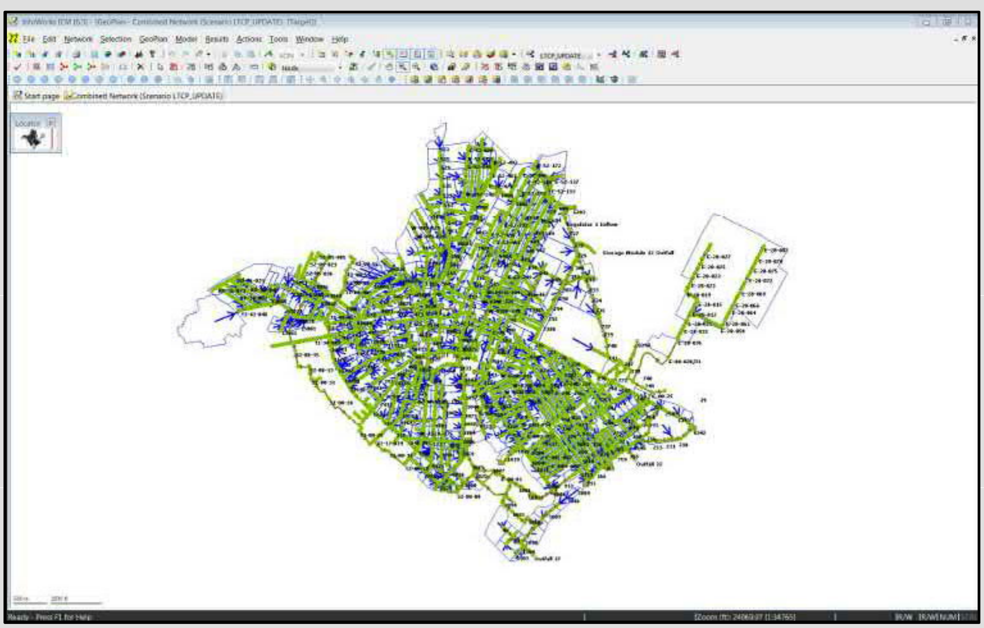
DRAINAGE

TYPE	COUNT
INLETS	4695

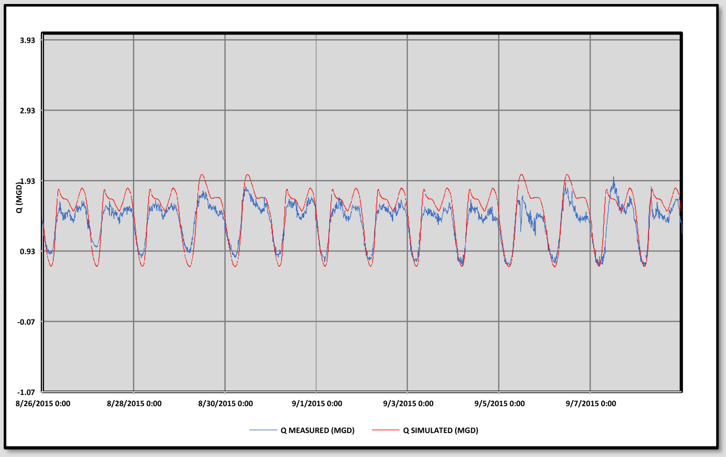
FACILITIES

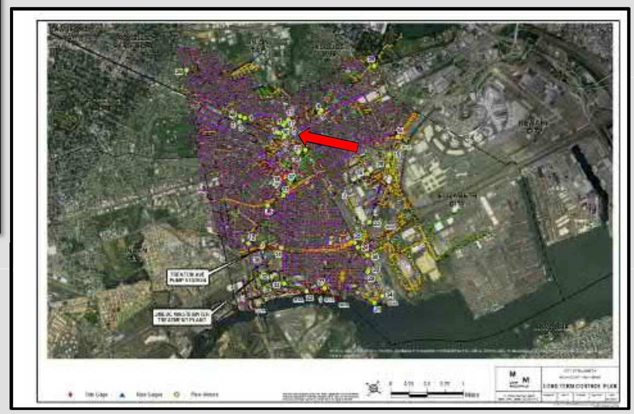
FACILITY TYPE	COUNT
Treatment Plant	1
Pump Station	9
CSO Outfalls	29
Netting Chambers	28
Siphon Chambers	16
Regulators	39
Tide Gates	43
Sluice Gates	12

Hydraulic Model

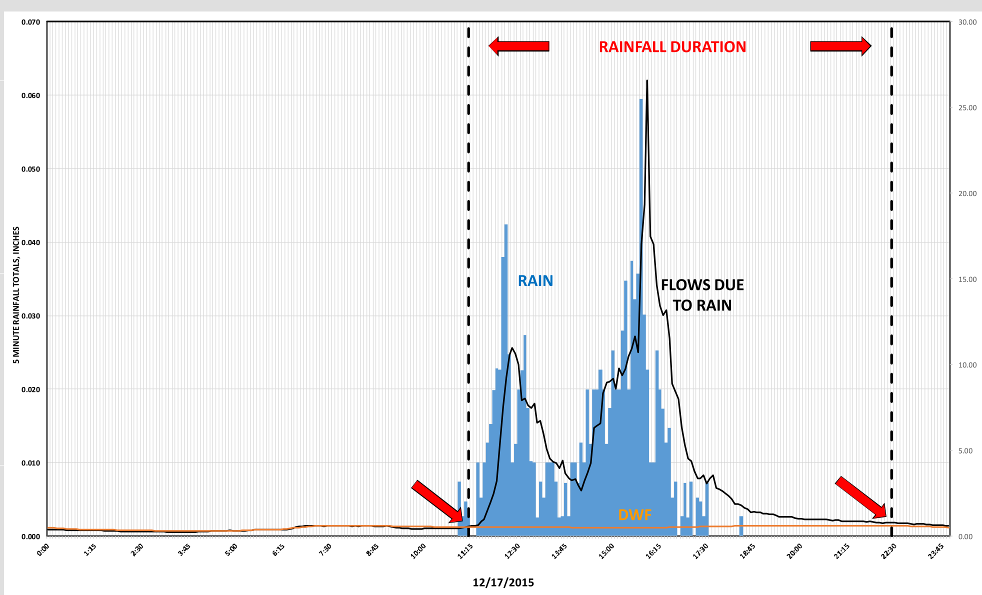


Meter vs. Model (Dry Weather Flows)





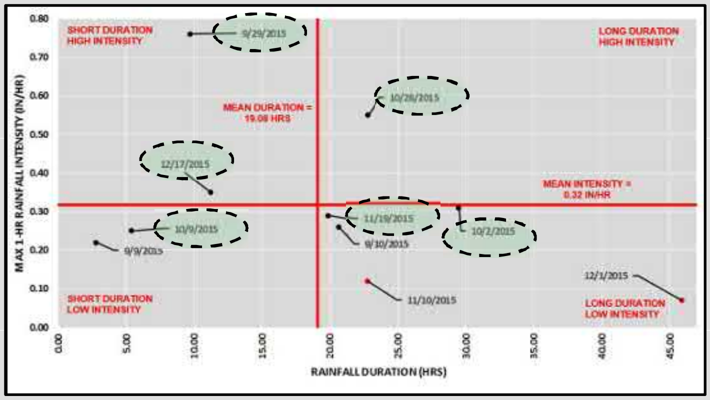
What Happens When it Rains?



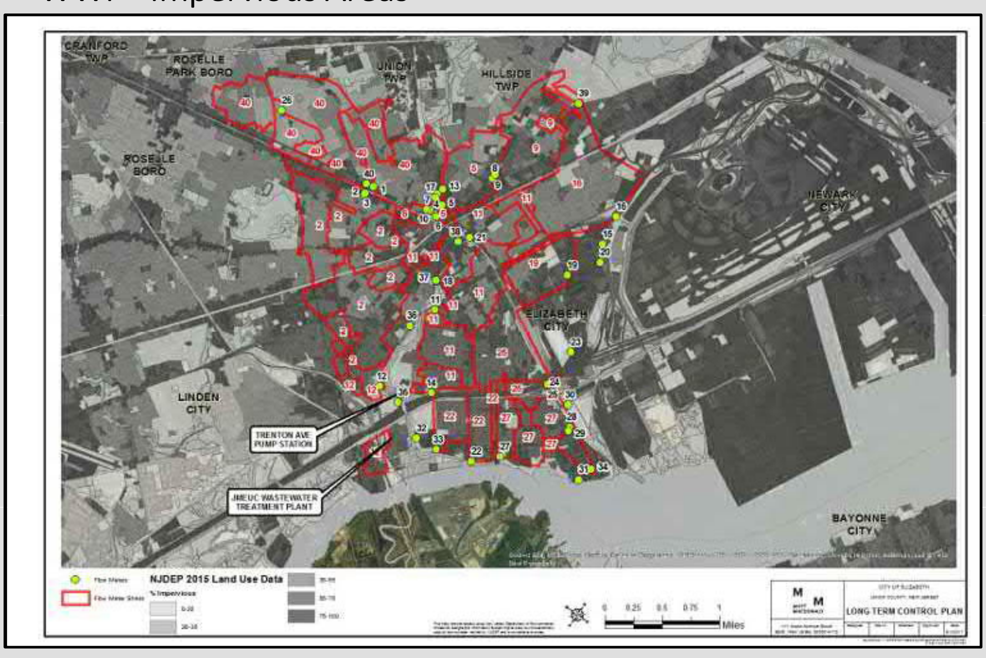
Step 1: Rainfall Selection

- **Calibration Storms**
  - 10/9/2015
  - 10/28/2015-10/29/2015
  - 11/19/2015-11/20/2015
  - 12/17/2015
- **Validation Storms**
  - 9/29/2015
  - 10/2/2015

Storm #	Start Date	End Date	Start Time	End Time	Rain Depth (In)	Rain Duration (Hrs)	Max 1-Hr Rainfall Intensity (In/Hr)
#1	9/9/2015	9/9/2015	15:40	18:30	0.11	2.83	0.22
#2	9/10/2015	9/10/2015	3:05	23:45	0.99	20.67	0.26
#3	9/29/2015	9/30/2015	23:00	8:45	1.39	9.75	0.76
#4	10/2/2015	10/3/2015	4:30	10:00	1.91	29.5	0.31
#5	10/9/2015	10/9/2015	17:25	22:50	0.32	5.42	0.25
#6	10/28/2015	10/29/2015	10:25	9:15	1.65	22.83	0.55
#7	11/10/2015	11/11/2015	8:30	7:15	0.57	22.75	0.12
#8	11/19/2015	11/20/2015	13:35	9:30	1	19.92	0.29
#9	12/1/2015	12/2/2015	1:35	23:30	0.6	45.92	0.07
#10	12/17/2015	12/17/2015	11:15	22:30	1.15	11.25	0.35



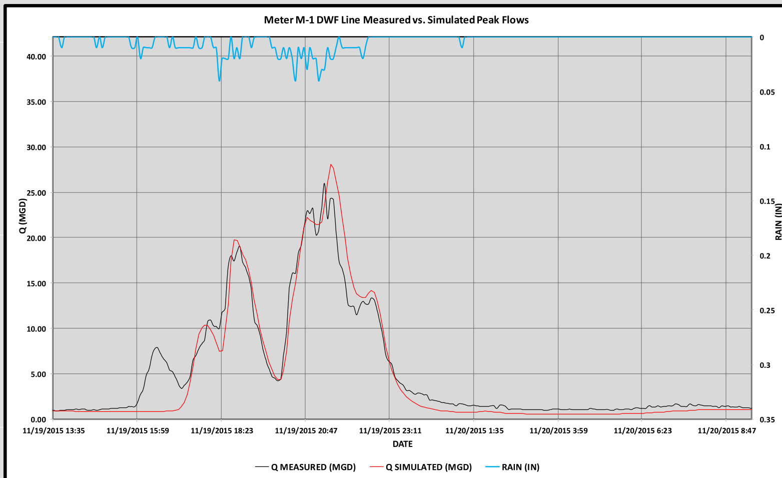
WWF - Impervious Areas

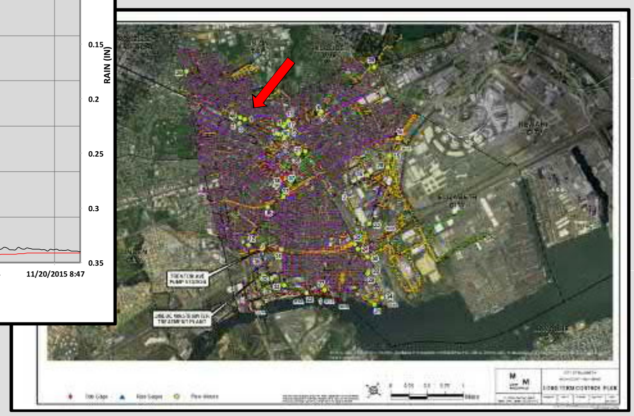


- NJDEP 2012 Land Use/ Land Cover Data (updated in 2015) used to calculate overall % impervious in flow meter sheds.

Meter vs. Model (Wet Weather Flows)

- **Calibration Storms**
  - 10/9/2015 (Low D, I)
  - 10/28/2015-10/29/2015 (High D, I)
  - **11/19/2015-11/20/2015 (High D, Low I)**
  - 12/17/2015 (High D, I)





WWF Calibration Results – Easterly Interceptor

- **Calibration Storms**
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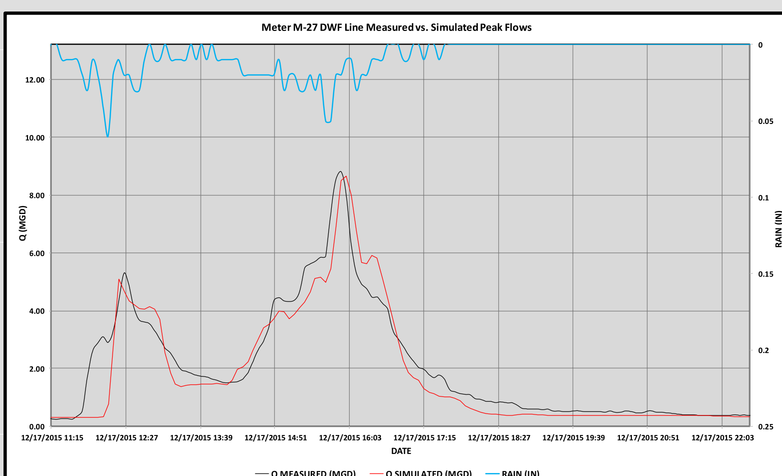
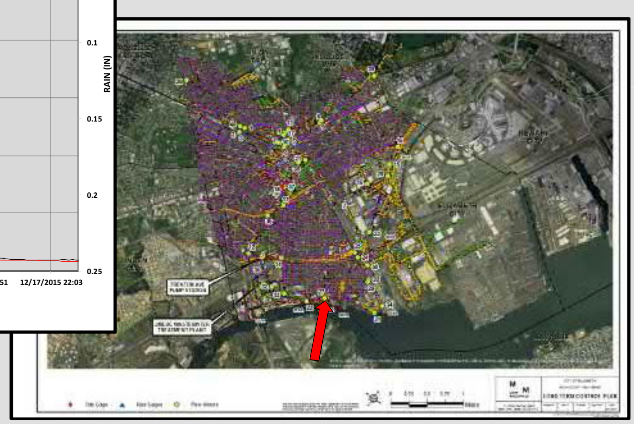
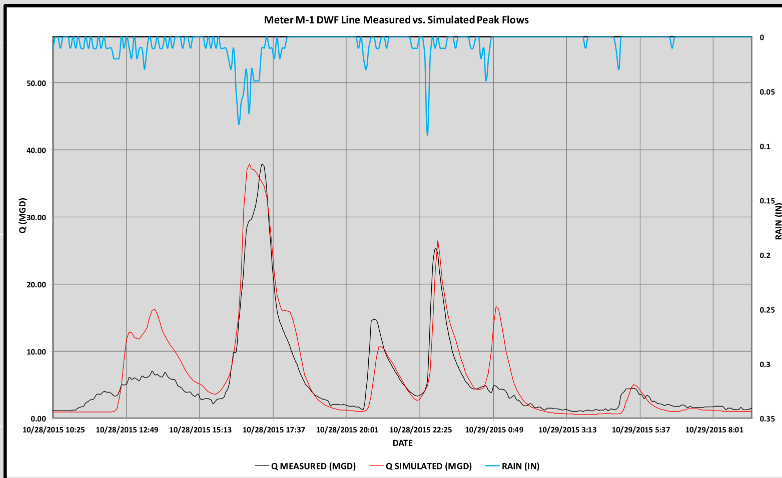
  - **12/17/2015 (High D, I)**





Meter vs. Model (Wet Weather Flows)



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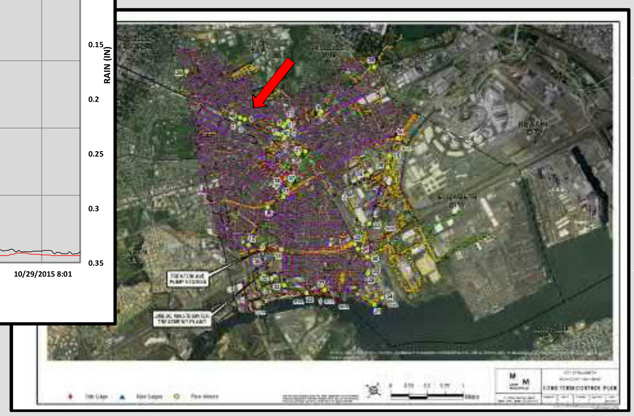

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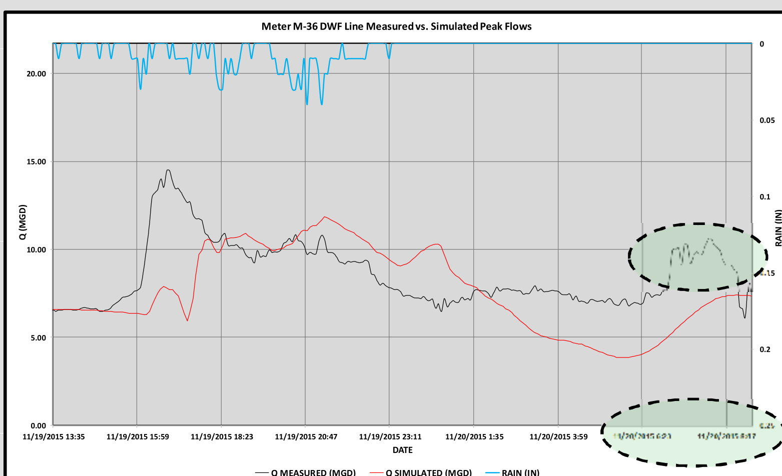

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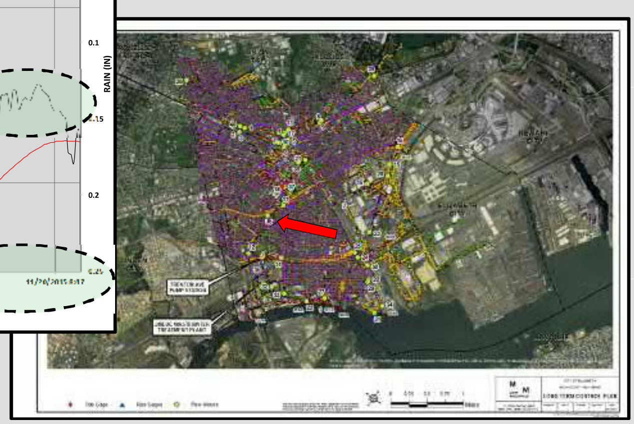

WWF Calibration Results – Easterly Interceptor

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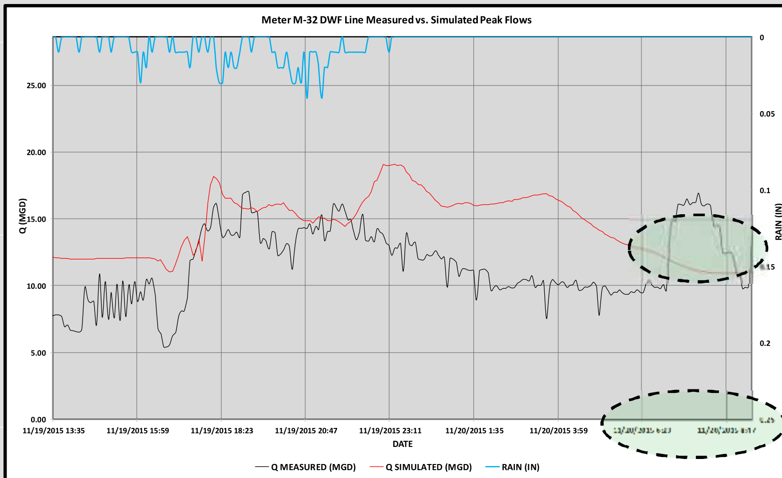
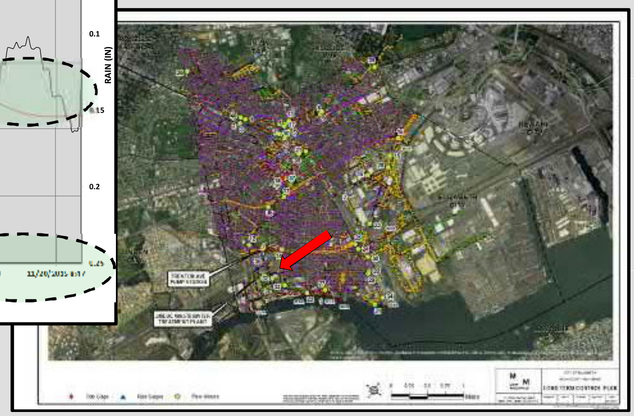
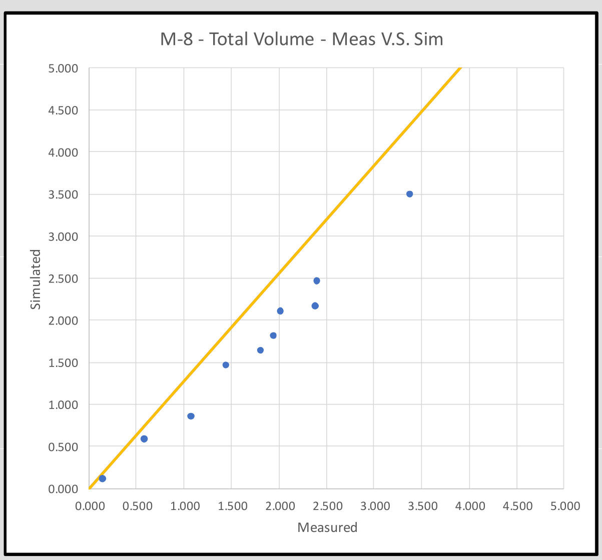
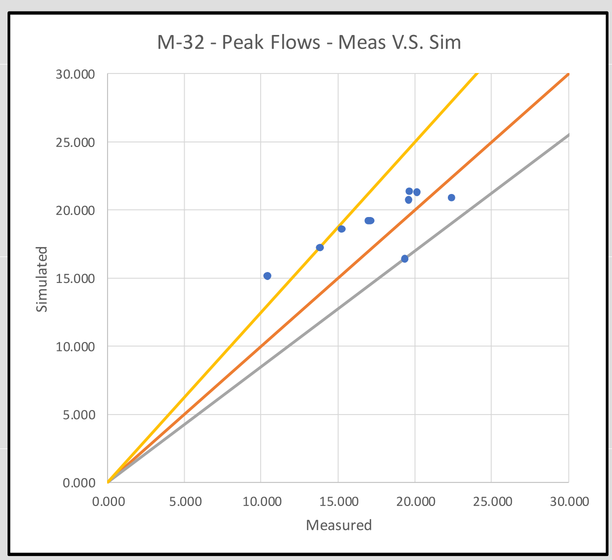




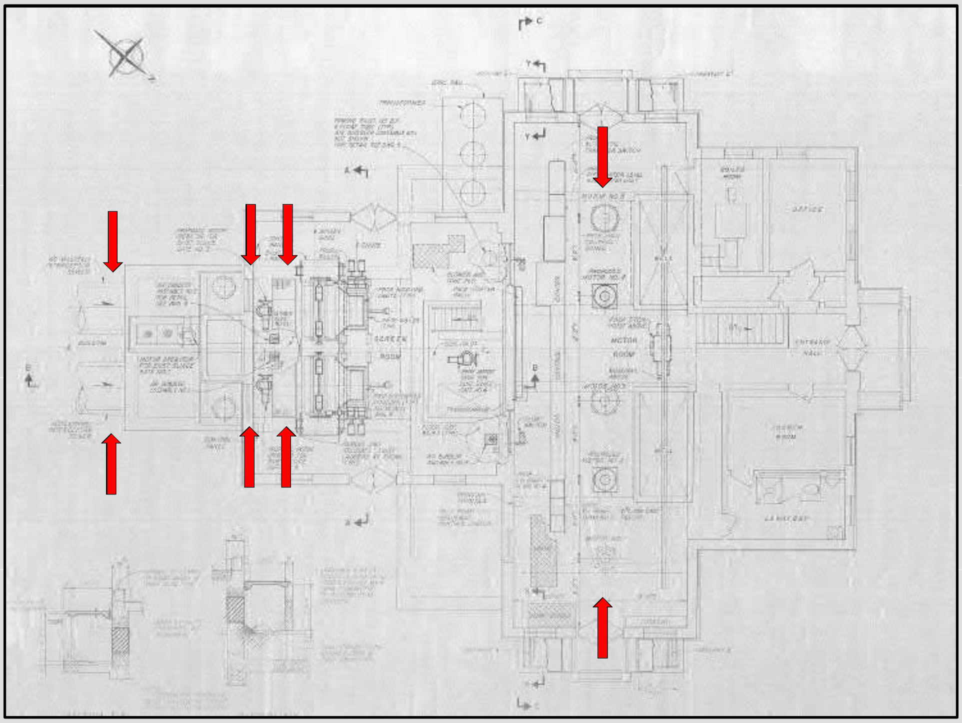
WWF Calibration Results – Overall Performance





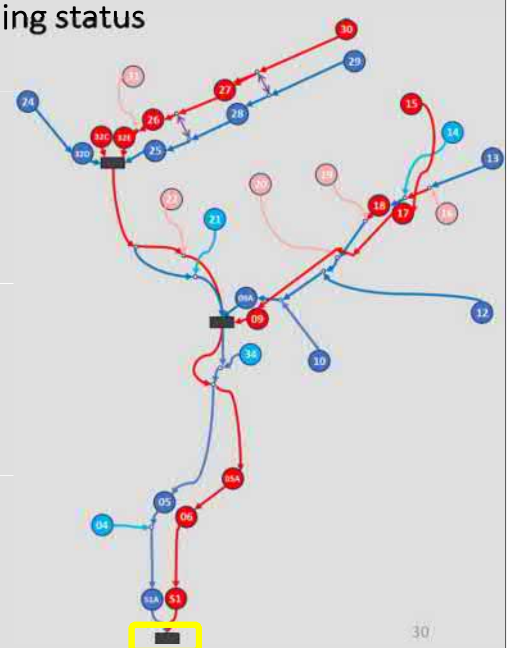
Trenton Ave PS

- Interceptors
- Sluice Gates
- Screens/ Bar Racks
- 5 VFD Pumps

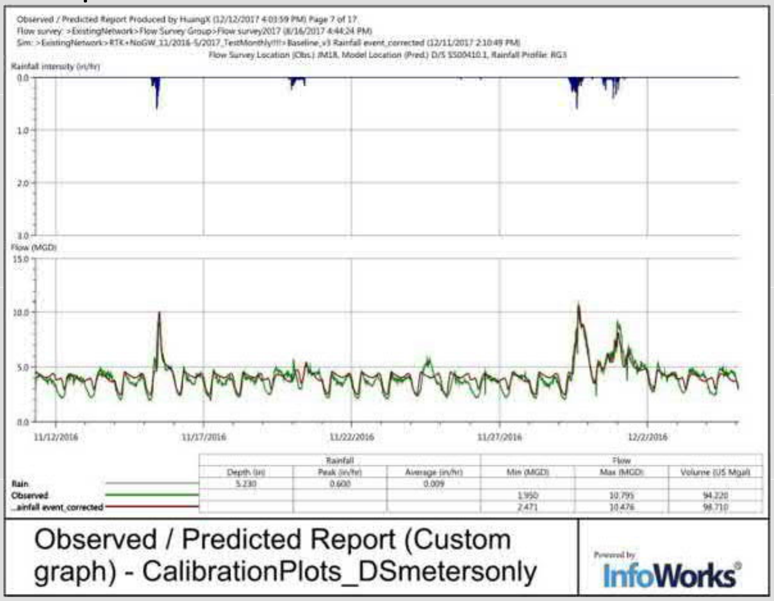


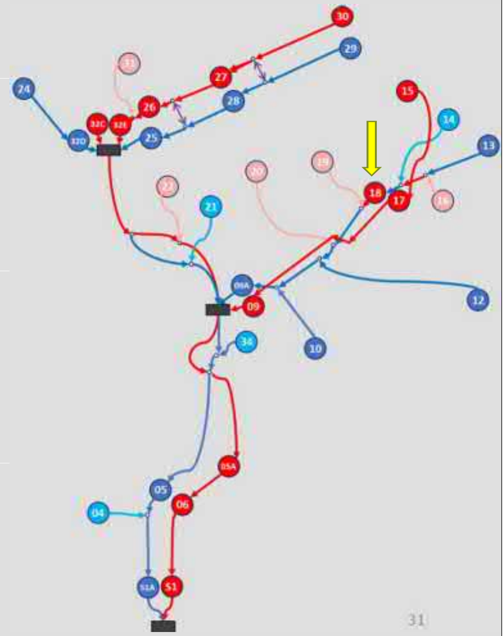
Project Status Updates
System Characterizations / Modeling – JMEUC modeling status

- Model calibration – flow monitoring sites for calibration:
  - 13 upstream sites: calibration complete
  - 11 middle trunk sites: calibration complete
  - 5 downstream trunk sites: final calibration adjustments in progress
- Coordination with City of Elizabeth combined sewer system model
- Coordination with NJ CSO Group ambient water quality model (plant effluent discharge)
- Integrate JMEUC wastewater treatment plant into collection system model

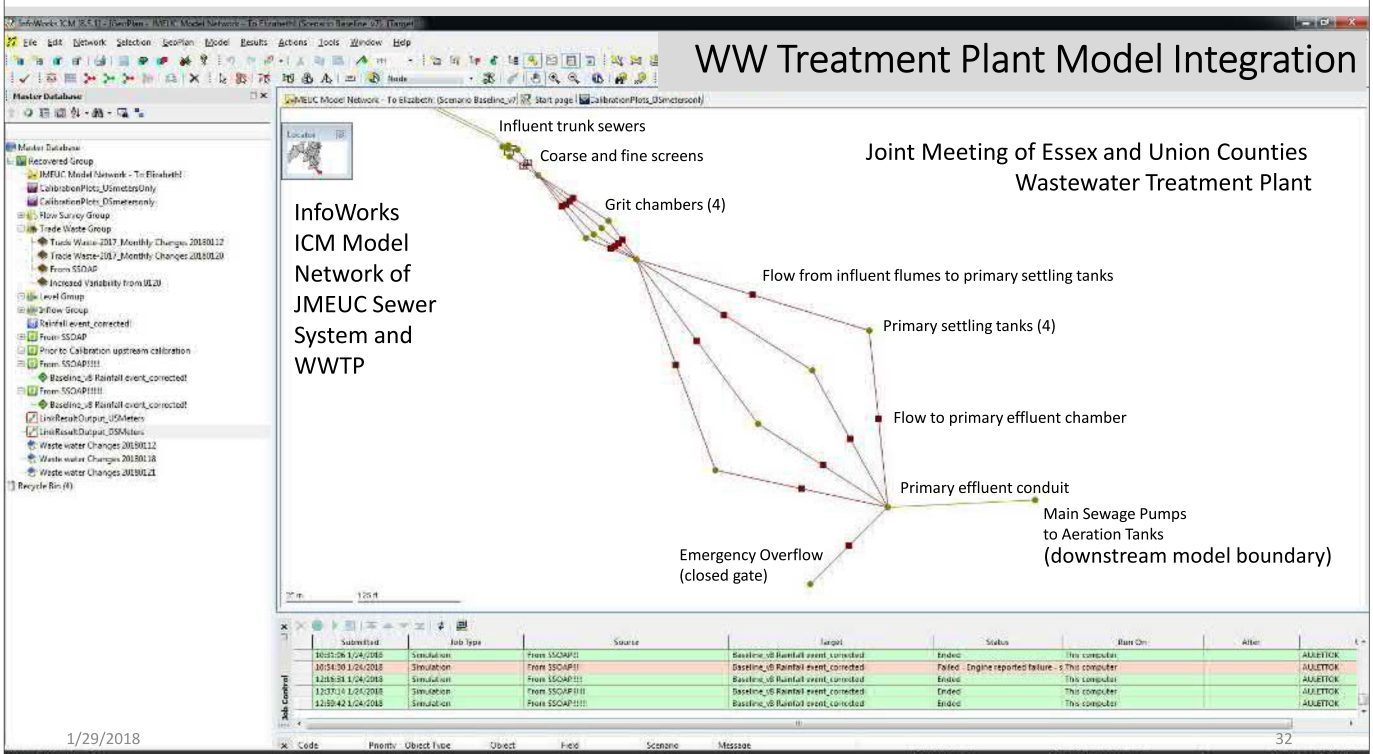


Example Model Calibration Plot – JMEUC Model





WW Treatment Plant Model Integration



NJ CSO Group coordination

- Baseline compliance monitoring program water quality testing and pathogen model
- CSO Notification System website operation
- Duration of discharge results for monthly reports
- Outfall signs, outreach materials and other collaborative works

Green Infrastructure Basics
Description

Presentation is taken from USEPA website.

Learn more by going to:

https://www.epa.gov/green-infrastructure/learn-about-green-infrastructure

Green Infrastructure Basics

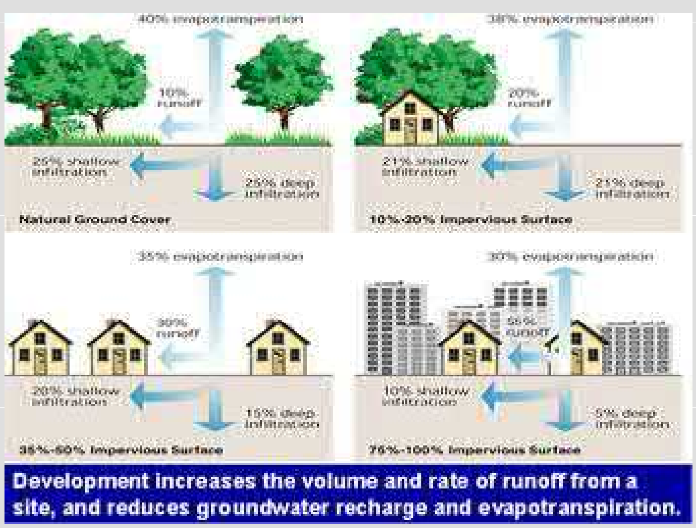
Description

What is Green Infrastructure?

According to EPA: Green infrastructure is a cost-effective, resilient approach to managing wet weather impacts that provides many community benefits. While single-purpose gray stormwater infrastructure—conventional piped drainage and water treatment systems—is designed to move urban stormwater away from the built environment, green infrastructure reduces and treats stormwater at its source while delivering environmental, social, and economic benefits.

Green Infrastructure Basics

Description



Green Infrastructure Basics
Description

What is Green Infrastructure?

Changes the Way Stormwater Runoff in Handled from common methods of transport and discharge, including:

- Treat it
- Use it
- Store it, or
- Slow it Down

In a way that can be economical and/or beneficial to the community.

Green Infrastructure Basics
Description

What is Green Infrastructure?

- Downspout Disconnection
- Rainwater Harvesting
- Rain Gardens
- Planter Boxes
- Bioswales
- Permeable Pavements
- Green Streets and Alleys
- Green Parking
- Green Roofs
- Urban Tree Canopy
- Land Conservation

Green Infrastructure Basics
Examples

Downspout Disconnection

Reroute rooftop drains from curb drains or service laterals in combined sewers areas to dry wells, cisterns, or permeable areas.

Water from the roof flows from this disconnected downspout into the ground through a filter of pebbles.

Green Infrastructure Basics
Description

Downspout Disconnection

Only works where roof leaders and downspouts are currently directed to service connection and combined sewer system.

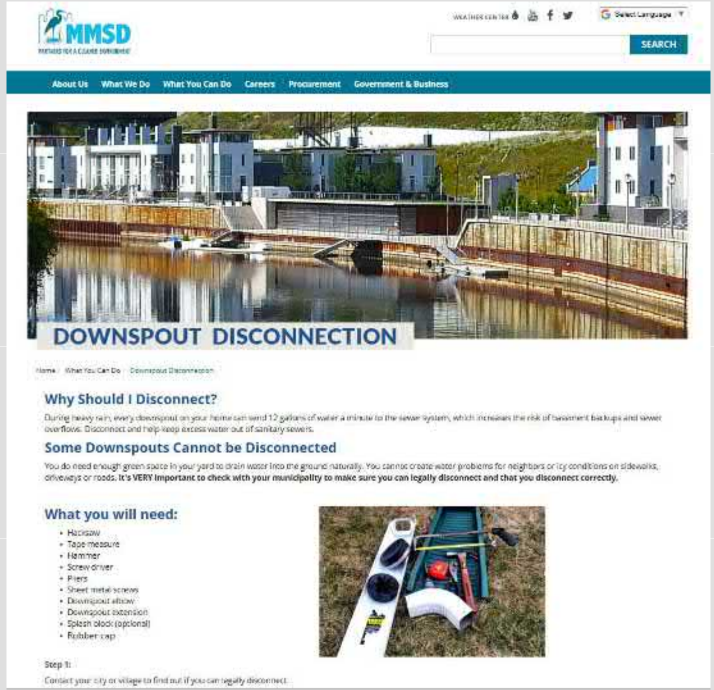
Caution:

a. Water cannot be directed to a neighbor
b. Do not direct water across a sidewalk (freeze potential).
c. Does your soil perc?
d. Check your local ordinances.

Green Infrastructure Basics

Example

Milwaukee Downspout Disconnection Program



Green Infrastructure Basics

Description

Rainwater Harvesting

Collect and Store Rainwater for Later Use on Landscaping or Gardens, i.e. rain barrels, or larger storage tanks. Particularly valuable in arid regions with limited water supplies.

Green Infrastructure Basics

Description

Rainwater Harvesting

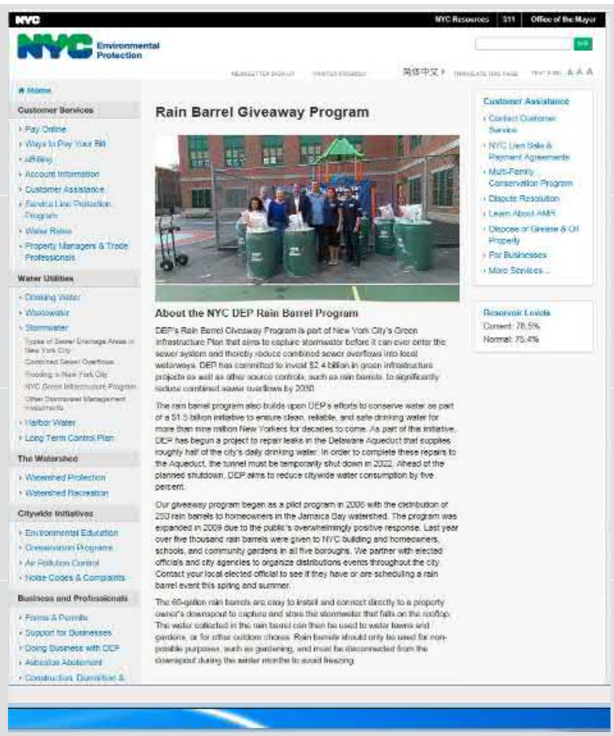
Limitations:

- Size of Container
- Only reuse during growing season.
- Manual maintenance needed to keep barrel empty to maximum harvesting.

Green Infrastructure Basics

Example

New York City
Rain Barrel Giveaway Program



NYC Environmental Protection

Rain Barrel Giveaway Program

About the NYC DEP Rain Barrel Program

DEP's Rain Barrel Giveaway Program is part of New York City's Green Infrastructure Plan that aims to capture stormwater before it can ever enter the sewer system and thereby reduce combined sewer overflows into local waterways. DEP has committed to invest $2.4 billion in green infrastructure projects as well as other source controls, such as rain barrels, to significantly reduce combined sewer overflows by 2030.

The rain barrel program also builds upon DEP's efforts to conserve water as part of a $1.5 billion initiative to ensure clean, reliable, and safe drinking water for more than nine million New Yorkers for decades to come. As part of this initiative, DEP has begun a project to repair leaks in the Delaware Aqueduct that supplies roughly half of the city's daily drinking water. In order to complete these repairs to the Aqueduct, the tunnel must be temporarily shut down in 2022. Ahead of the planned shutdown, DEP aims to reduce citywide water consumption by five percent.

Our giveaway program began as a pilot program in 2008 with the distribution of 250 rain barrels to homeowners in the Jamaica Bay watershed. The program was expanded in 2009 due to the public's overwhelmingly positive response. Last year over five thousand rain barrels were given to NYC building and homeowners, schools, and community gardens in all five boroughs. We partner with elected officials and city agencies to organize distributions events throughout the city. Contact your local elected official to see if they have or are scheduling a rain barrel event this spring and summer.

The 60-gallon rain barrels are easy to install and connect directly to a property owner's downspout to capture and store the stormwater that falls on the rooftop. The water collected in the rain barrel can then be used to water lawns and gardens, or for other outdoor chores. Rain barrels should only be used for non-potable purposes, such as gardening, and must be disconnected from the downspout during the winter months to avoid freezing.

Green Infrastructure Basics
Description

Rain Gardens

As per EPA, Rain gardens are versatile features that can be installed in almost any unpaved space. Also known as bioretention, or bioinfiltration, cells, they are shallow, vegetated basins that collect and absorb runoff from rooftops, sidewalks, and streets.

Green Infrastructure Basics
Description

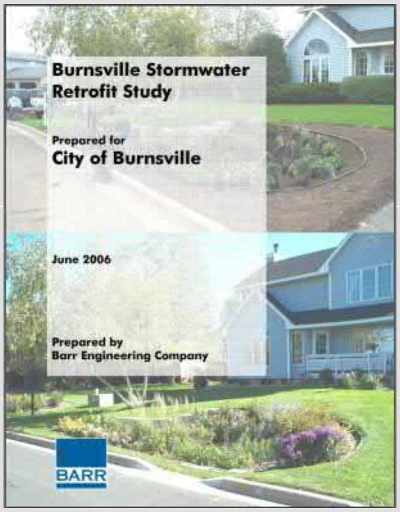
Rain Gardens

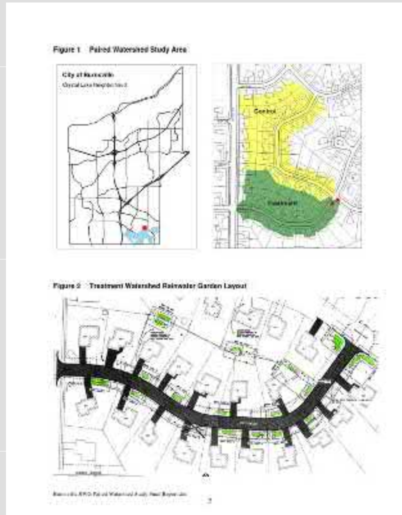
Limitation:
Needs permeable non-paved areas

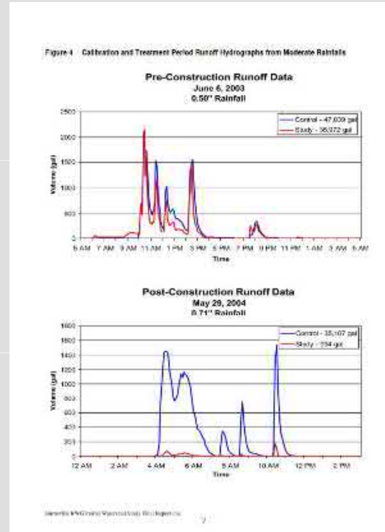
Advantage:
Mimics natural hydrology of infiltration, evaporation, and transpiration.

Green Infrastructure Basics

Rain Gardens - Minnesota







Green Infrastructure Basics

Description

Planter Boxes

As per EPA, Planter boxes are urban rain gardens with vertical walls and either open or closed bottoms. They collect and absorb runoff from sidewalks, parking lots, and streets and are ideal for space-limited sites in dense urban areas and as a streetscaping element.

Green Infrastructure Basics
Description

Planter Boxes

Limitation:
Needs permeable non-paved areas and thus a decent right-of-way width between curbs and buildings.

Advantage:
Mimics natural hydrology of infiltration, evaporation, and transpiration.

Green Infrastructure Basics
Example

Philadelphia

Green Infrastructure Program

Green Infrastructure Basics
Description

Bioswales

As per EPA, Bioswales are vegetated, mulched, or xeriscaped channels that provide treatment and retention as they move stormwater from one place to another. Vegetated swales slow, infiltrate, and filter stormwater flows.

Green Infrastructure Basics
Description

Bioswales

Limitation:
Needs permeable non-paved areas and thus a decent right-of-way width between curbs and buildings.

Advantage:
Mimics natural hydrology of infiltration, evaporation, and transpiration.

Green Infrastructure Basics
Description

Permeable Pavements

As per EPA, Permeable pavements infiltrate, treat, and/or store rainwater where it falls. They can be made of pervious concrete, porous asphalt, or permeable interlocking pavers.

Green Infrastructure Basics
Description

Permeable Pavements

Limitation:
Needs permeable subsoils or high void volume subbase.
Require higher maintenance to limit plugging.

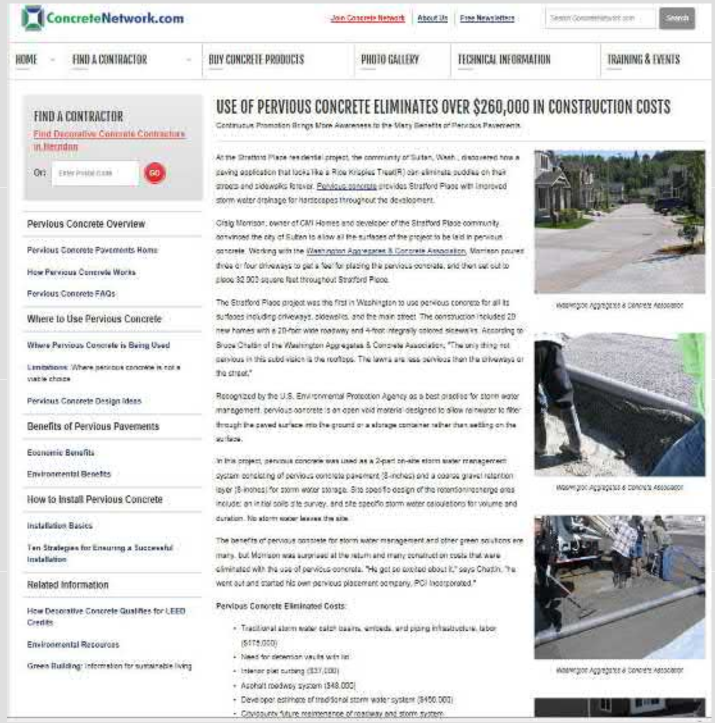
Advantage: Could be cost effective in areas with high land values and flooding or icing problems.

Green Infrastructure Basics
Example

Permeable Pavements

Sultan, Washington

Straford Place
Community Residential
Project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Find Decorative Concrete Contractors in Herndon

Pervious Concrete Overview
Pervious Concrete Pavements Home
How Pervious Concrete Works
Pervious Concrete FAQs
Where to Use Pervious Concrete
Where Pervious Concrete is Being Used
Limitations: Where pervious concrete is not a viable choice
Pervious Concrete Design Ideas
Benefits of Pervious Pavements
Economic Benefits
Environmental Benefits
How to Install Pervious Concrete
Installation Basics
Ten Strategies for Ensuring a Successful Installation
Related Information
How Decorative Concrete Qualifies for LEED Credits
Environmental Resources
Green Building: Information for sustainable living

USE OF PERVIOUS CONCRETE ELIMINATES OVER $260,000 IN CONSTRUCTION COSTS

Continuous Promotion Brings More Awareness to the Many Benefits of Pervious Pavements

At the Stratford Place residential project, the community of Sultan, Wash., discovered how a paving application that looks like a Rice Krispies Treat(R) can eliminate puddles on their streets and sidewalks forever. Pervious concrete provides Stratford Place with improved storm water drainage for hardscapes throughout the development.

Craig Morrison, owner of CMI Homes and developer of the Stratford Place community convinced the city of Sultan to allow all the surfaces of the project to be laid in pervious concrete. Working with the Washington Aggregates & Concrete Association, Morrison poured three or four driveways to get a feel for placing the pervious concrete, and then set out to place 32,000 square feet throughout Stratford Place.

The Stratford Place project was the first in Washington to use pervious concrete for all its surfaces including driveways, sidewalks, and the main street. The construction included 20 new homes with a 20-foot wide roadway and 4-foot integrally colored sidewalks. According to Bruce Chattin of the Washington Aggregates & Concrete Association, "The only thing not pervious in this subdivision is the rooftops. The lawns are less pervious than the driveways or the street."

Recognized by the U.S. Environmental Protection Agency as a best practice for storm water management, pervious concrete is an open void material designed to allow rainwater to filter through the paved surface into the ground or a storage container rather than settling on the surface.

In this project, pervious concrete was used as a 2-part on-site storm water management system consisting of pervious concrete pavement (8-inches) and a coarse gravel retention layer (8-inches) for storm water storage. Site specific design of the retention/recharge area include: an initial soils site survey, and site specific storm water calculations for volume and duration. No storm water leaves the site.

The benefits of pervious concrete for storm water management and other green solutions are many, but Morrison was surprised at the return and many construction costs that were eliminated with the use of pervious concrete. "He got so excited about it," says Chattin, "he went out and started his own pervious placement company, PCI Incorporated."

Pervious Concrete Eliminated Costs:

- Traditional storm water catch basins, embeds, and piping infrastructure, labor ($175,000)
- Need for detention vaults with lid
- Interior plat curbing ($37,000)
- Asphalt roadway system ($48,000)
- Developer estimate of traditional storm water system ($450,000)
- City/county future maintenance of roadway and storm system

Green Infrastructure Basics
Description

Green Streets and Alleys

As per EPA, “Green streets and alleys are created by integrating green infrastructure elements into their design to store, infiltrate, and evapotranspire stormwater. Permeable pavement, bioswales, planter boxes, and trees are among the elements that can be woven into street or alley design

Green Infrastructure Basics

Description

Green Streets and Alleys

EPA Region 3 Green Streets, Green Jobs, and Green Towns (G3) Program is meant to provide guidance with:

- Policy, Regulations, and Incentives
- Planning and Design
- Construction, Operation, and Maintenance
- Financing and Economic Benefits
- Green Jobs and Training

https://www.epa.gov/G3

Green Infrastructure Basics

Example

Green Streets and Alleys

Syracuse, NY
Green Street
Project

Save The Rain Clean The Lake

Project:	Concord Place
GI Technology:	Infiltration Bed
Project Location:	Concord Place from Westcott St to Allen St
Project Owner:	City of Syracuse
Sewershed:	Erie
Capture Area:	39,000 square ft
Run-off Reduction:	955,000 gallons/yr
Year Completed:	2011
Construction Cost:	$78,900
Prime Contractor:	Cornerstone Paving

FACT SHEET
Green Street: Concord Place

Project Description: Concord Place is the first "green street" project in Syracuse. This project demonstrates a subtle approach to managing stormwater with the installation of infiltration trenches along the street corridor. Stormwater enters the system through the existing storm drain connections in the street. Instead of the collected water flowing to the sewer system, as was previously the case, the water is directed to an underground trench filled with a stone base. As the water enters the trench, it slowly filters through the compacted stone and soil, eventually releasing into the ground water. In addition to the underground infiltration system, Concord Place also received a new mill and pave application to the street surface, which was paid for by the City of Syracuse.

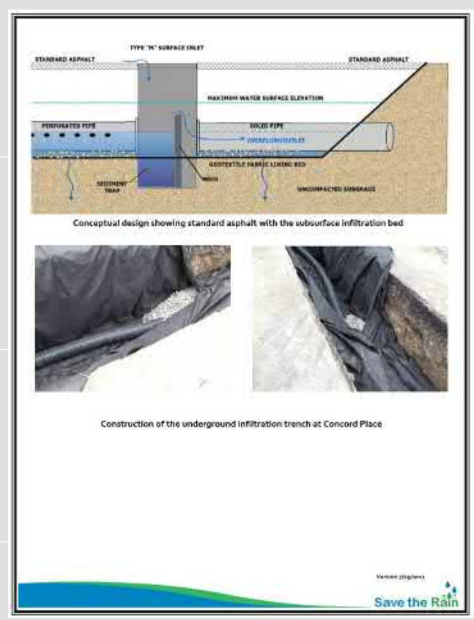
This type of project is unique among green infrastructure projects – although above the surface it appeared to be a traditional street paving process, below the street green infrastructure was installed to more effectively manage stormwater and protect our water resources.

The completion of the renovation of Concord Place is the first of several planned "green street" projects within the "Save the Rain" program.

Concord Place (looking south)

Concord Place (looking at center island)

Save the Rain



Conceptual design showing standard asphalt with the subsurface infiltration bed

Construction of the underground infiltration trench at Concord Place

Save the Rain

Green Infrastructure Basics
Description

Green Parking

Use of permeable pavements can be installed in sections of a lot (parking spaces) and rain gardens and bioswales can be included in medians and along the parking lot perimeter.

Green Infrastructure Basics
Description

Green Parking

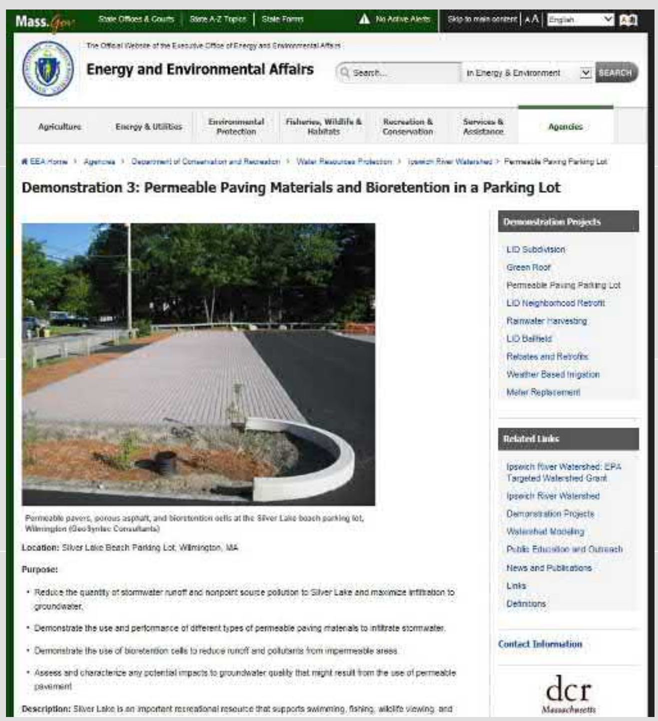
Wilmington, MA
Silver Lake Beach Parking Lot

Key Results and Conclusions:

- Infiltration tests of the permeable paving materials, conducted after construction, indicated that infiltration rates met or exceeded specifications; the average observed infiltration rates were:

Porous Asphalt	Permeable Pavers	Flexi-Pave	Gravelpave
69 in./hr.	45 in./hr.	1,492 in./hr.	exceeds 5,000 in./hr

- Results of USGS monitoring show no indication of groundwater impairment beneath the areas with pervious paving.
- Reports from the town Board of Health show no closures of the swimming beach as a result of E. coli bacteria in the four years following installation of the LID features. For eight years prior to installation, beach closures due to E. coli occurred one or more times each summer.
- Since the installation of the LID features, the beach had one closure due to cyanobacteria, an algal bloom often associated with in influx of nutrients.



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Agriculture | Energy & Utilities | Environmental Protection | Fisheries, Wildlife & Habitats | Recreation & Conservation | Services & Assistance | Agencies

EEA Home > Agencies > Department of Conservation and Recreation > Water Resources Protection > Ipswich River Watershed > Permeable Paving Parking Lot

Demonstration 3: Permeable Paving Materials and Bioretention in a Parking Lot

Permeable pavers, porous asphalt, and bioretention cells at the Silver Lake beach parking lot, Wilmington (GeoSyntec Consultants)

Location: Silver Lake Beach Parking Lot, Wilmington, MA

Purpose:

- Reduce the quantity of stormwater runoff and nonpoint source pollution to Silver Lake and maximize infiltration to groundwater.
- Demonstrate the use and performance of different types of permeable paving materials to infiltrate stormwater.
- Demonstrate the use of bioretention cells to reduce runoff and pollutants from impermeable areas.
- Assess and characterize any potential impacts to groundwater quality that might result from the use of permeable pavement.

Description: Silver Lake is an important recreational resource that supports swimming, fishing, wildlife viewing, and

Demonstration Projects
- LID Subdivision
- Green Roof
- Permeable Paving Parking Lot
- LID Neighborhood Retrofit
- Rainwater Harvesting
- LID Ballfield
- Rebates and Retrofits
- Weather Based Irrigation
- Meter Replacement

Related Links
- Ipswich River Watershed: EPA Targeted Watershed Grant
- Ipswich River Watershed
- Demonstration Projects
- Watershed Modeling
- Public Education and Outreach
- News and Publications
- Links
- Definitions

Contact Information

dcr Massachusetts

Green Infrastructure Basics

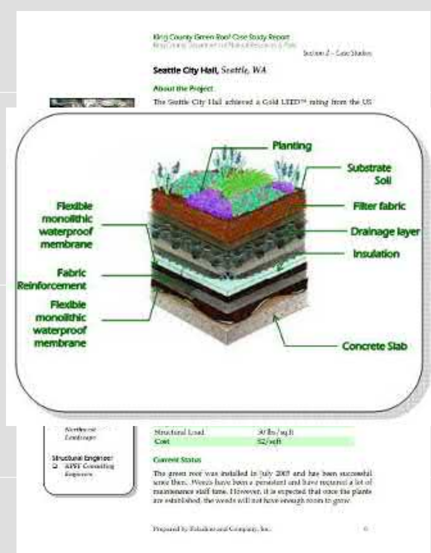
Description

Green Roofs

As per EPA, Green roofs are covered with growing media and vegetation that enable rainfall infiltration and evapotranspiration of stored water. They are particularly cost-effective in dense urban areas where land values are high and on large industrial or office buildings where stormwater management costs are likely to be high.

Green Infrastructure Basics

Example Washington State

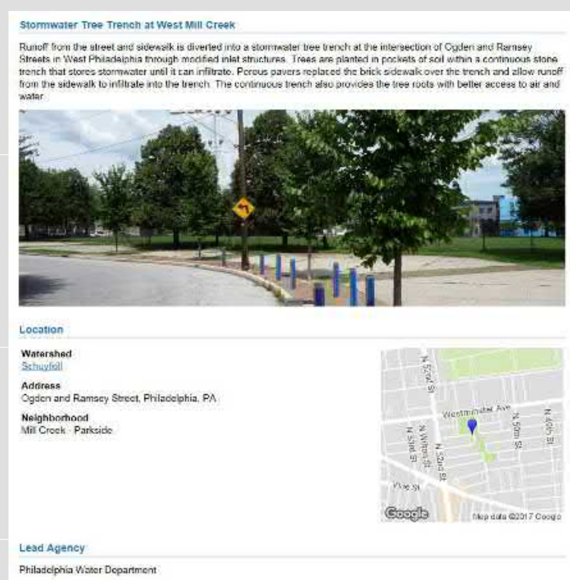


Green Infrastructure Basics
Description

Urban Tree Canopy

Trees reduce and slow stormwater by intercepting precipitation in their leaves and branches. They can also be integrated into green infrastructure such as tree trenches or bioswales.

Green Infrastructure Basics
Example – Tree Canopy



Green Infrastructure Basics
Description

Land Conservation

The water quality and flooding impacts of urban stormwater also can be addressed by protecting open spaces and sensitive natural areas within and adjacent to a city. Natural areas that should be a focus of this effort include riparian areas, wetlands, and steep hillsides.

Six-month look ahead

- Next meeting: late April – early May
- Submit reports with July 1, 2018 deadline:
  - System Characterization Reports
    - Separate reports for Elizabeth and Joint Meeting
    - Joint reviews and certifications
    - Drafts anticipated in April
  - Consideration of Sensitive Areas Plan
  - Public Participation Report
  - Compliance Monitoring Program Report
    - NJ CSO Group joint effort, draft results under review
- Develop and evaluate alternatives, with performance modelling

Questions?

Thank you

City of Elizabeth and
Joint Meeting of Essex & Union Counties (JMEUC)

Supplemental CSO Team

Meeting No. 3
Long-Term Control Plan Permit Compliance