



NEWPORT  
RHODE ISLAND  
1639

---

# CSO Program Stakeholder Workgroup: Meeting #1

---

Newport City Hall – Council Chambers  
February 3, 2011



# Welcome & Introductions

- City Representatives
  - Julia Forgue – Director of Utilities
  - Joe Nicholson – City Solicitor
- CH2M HILL
  - Peter von Zweck
  - Becky Weig
- Stakeholder Workgroup Participants

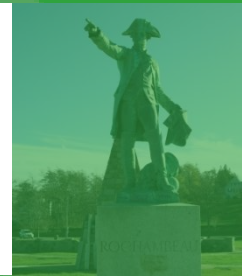
# Agenda

- Introductions – Julia Forgue
- Key Terms & Acronyms – Julia Forgue
- Chartering the Workgroup – Becky Weig
- Overview of the City’s Wastewater System –Peter von Zweck
- Overview of the CSO Program – Peter von Zweck
- Supplemental Environmental Projects (SEPs) – Becky Weig
- Future Meetings, Wrap-up & Questions



NEWPORT  
RHODE ISLAND

1639



# KEY TERMS & ACRONYMS

- *Combined Sewer System* – a collection system designed or intended to convey wastewater and storm water in a single pipe to the Water Pollution Control Facility (WPCF) or other authorized discharge point
- *Combined Sewer Overflow* – the discharge of wastewater and stormwater from a combined sewer system directly to a receiving waterbody during wet weather

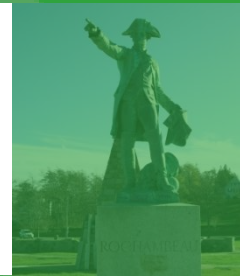
# Acronyms

- CCTV – Closed Circuit Television
- CMOM – Capacity, Management, Operations & Maintenance
- CSO – Combined Sewer Overflow
- EPA – Environmental Protection Agency
- FM – Force Main
- GIS – Geographic Information System
- I/I – Infiltration & Inflow
- LTCP – Long Term Control Plan
- O&M – Operations & Maintenance
- PS – Pump Station
- RIDEM – Rhode Island Department of Environmental Management
- SEP – Supplemental Environmental Project
- SMP – System Master Plan
- WPCF – Water Pollution Control Facility



NEWPORT  
RHODE ISLAND

1639



# STAKEHOLDER WORKGROUP CHARTERING

# Chartering Elements

- Mission
- Workgroup Membership
- Boundary Conditions
- Operating Guidelines



# CSO Program Stakeholder Workgroup Mission Statement

- To review proposed plans and projects for the CSO Program and provide recommendations to the City about the potential benefits and impacts of proposed plans and projects to all users of the system.
- To share CSO Program plans and project information with each stakeholder's organization to aid the City in its efforts to communicate CSO Program information.
- To support the CSO Program's public education efforts through participation in CSO Program public education activities.

# CSO Program Stakeholder Workgroup Membership

CSO Program Workgroup Membership		
Ad-Hoc Committee Representative	Alliance for a Livable Newport	Beach Commission
City Council Liaison	City Planning Department	City Department of Public Services
EPA	Town of Middletown	Naval Station Newport
Newport County Chamber of Commerce	Newport County Convention & Visitor's Bureau (NCCVB)	Newport Harbor Master
Residents-at-Large (4)	RIDEM	Roger Williams University – School of Engineering
Save the Bay		

Each organization has one representative and one alternate  
Residents-at-Large – 4 participants

# Boundary Conditions

## Boundary Conditions – limits of the Workgroup’s activities

- The Workgroup may:
  - Ask questions about Program approach
  - Provide their perspective on Program approach & decision making
  - Review Program plans and projects & make recommendations
  - Disseminate Program information to their organizations
  - Propose Workgroup agenda topics
- The Workgroup may not:
  - Set City policies
  - Commit City funds

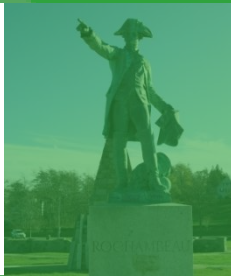
# Operating Guidelines – How the Workgroup Will Function

- Communications
  - E-mail notifications – please use:  
[newportcsoprogram@CityofNewport.com](mailto:newportcsoprogram@CityofNewport.com)
  - Meetings
- Meeting logistics – Will be discussed during Wrap-up
- Meeting structure
  - Planned agendas - distributed prior to meeting
  - Meeting minutes – to be approved at subsequent meeting
  - Parking lot – location for unanswered questions/off-topic issues



NEWPORT  
RHODE ISLAND

1639

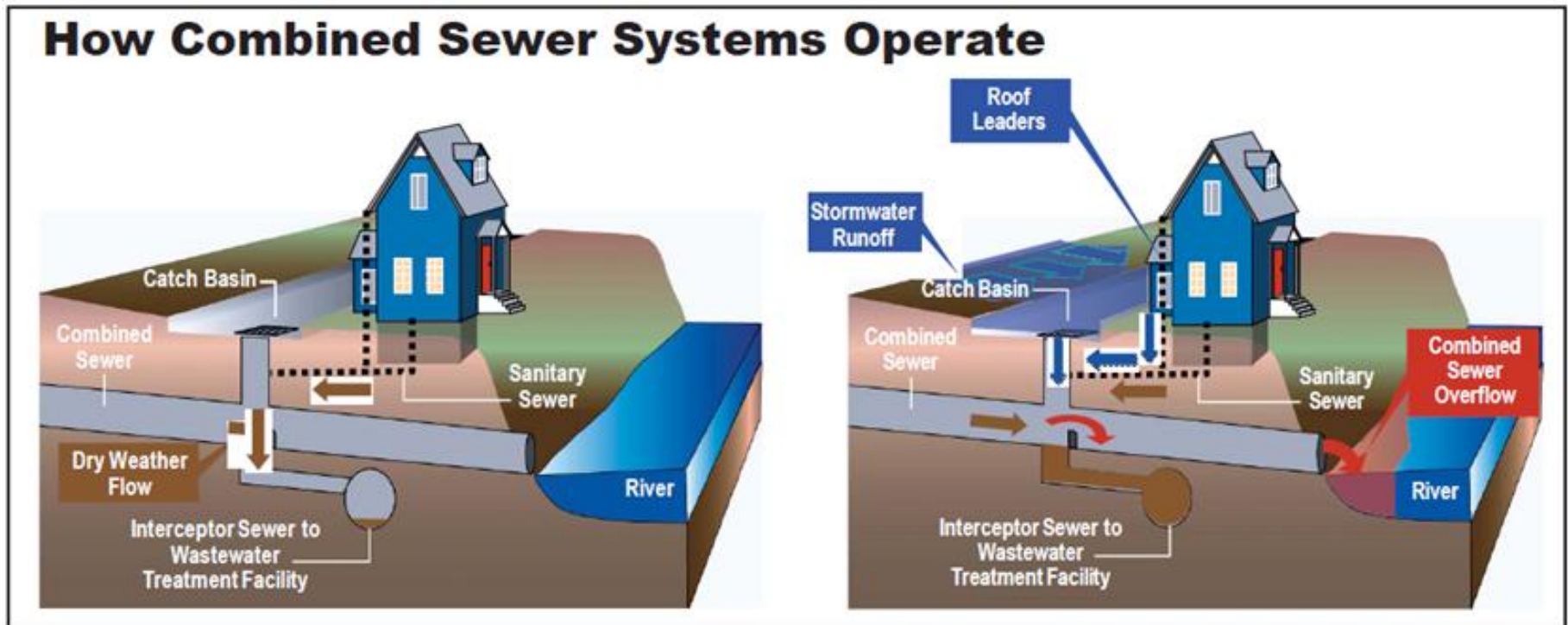


# OVERVIEW OF THE WASTEWATER SYSTEM

# History of the City's Collection System

Year(s)	Activities
1800s – 1970s	Operates as a completely combined system
1970s	Implemented a sewer separation program
1978	Wellington Ave. CSO Treatment Facility constructed
1991	Washington St. CSO Treatment Facility constructed
1994	EPA CSO Policy Issued
1999	City signs a consent agreement with RIDEM
1999 - 2008	City working under RIDEM direction on CSO Program
2008	EPA supersedes RIDEM consent agreement negotiations with Request for Information (RFI)
2009 – 2011	City enters and maintains ongoing negotiations on a CSO Corrective Action Plan (CAP) with EPA & RIDEM
2010	City begins implementing activities from draft CAP

# How a Combined Sewer System Operates



Dry Weather Conditions

Wet Weather Conditions

# Overview of Current Wastewater System



## Wastewater Infrastructure:

- 1 WPCF
- 3 permitted CSOs:
  - Wellington Ave. CSO
  - Washington St. CSO
  - Long Wharf CSO (plugged)

## CSO Statistics for 2001 - 2010

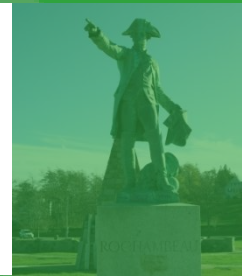
	Wellington Ave. CSO	Washington St. CSO
CSO Events/Yr (average)	19	12
Median Volume CSO (MG)	0.38	1.35
Maximum Volume CSO (MG)	24.4	64.4





NEWPORT  
RHODE ISLAND

1639

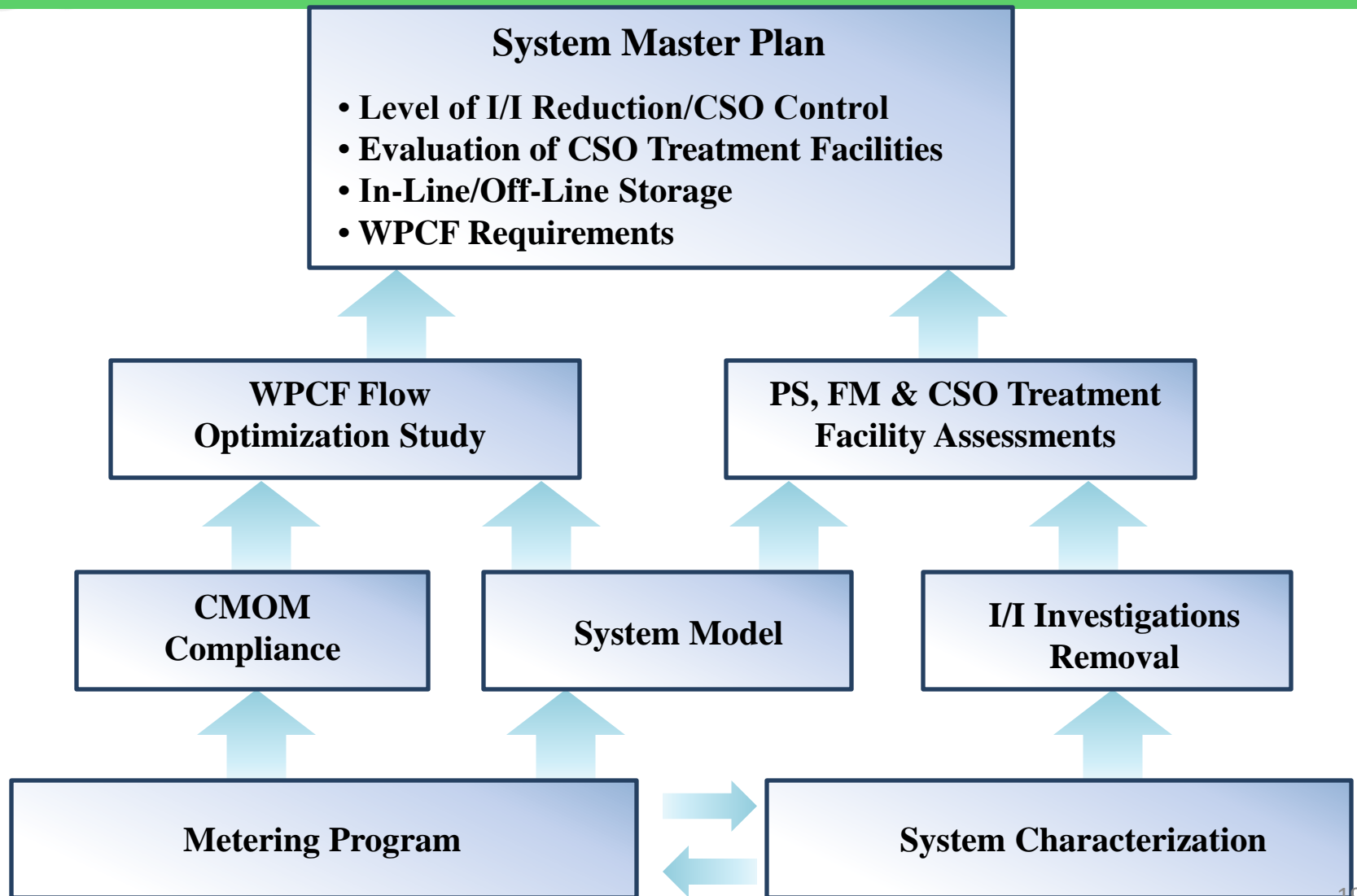


# OVERVIEW OF THE CSO PROGRAM

# CSO Program Goals

*Continue to identify & implement the most cost-effective solution for reducing the number of CSOs to a level protective of Newport Harbor and acceptable to the community and regulatory agencies.*

# CSO Program Implementation Approach



# Completed & On-going Activities

- Metering
- CCTV & pipe condition
- Private I/I disconnections
- Field work to identify additional sources of I/I
- Previously completed capital improvements

More information about these activities is available in the Background Information on Newport Combined Sewer System and CSO Program memo.

# Key Upcoming CSO Program Activities

- Request for Proposals (RFPs)
  - Sewer Repair & Replacement Design
  - Beach Pump Station Evaluation
  - Bliss Mine Force Main Evaluation
- Hydraulic Model Calibration Report (April 2011)
- Extraneous Flow Characterization Report
  - Wellington (July 2011)
  - Washington (September 2011)
- Collection System Capacity Assessment (January 2012)
- System Master Plan (November 2012)

# Tying All CSO Program Activities into a System Master Plan

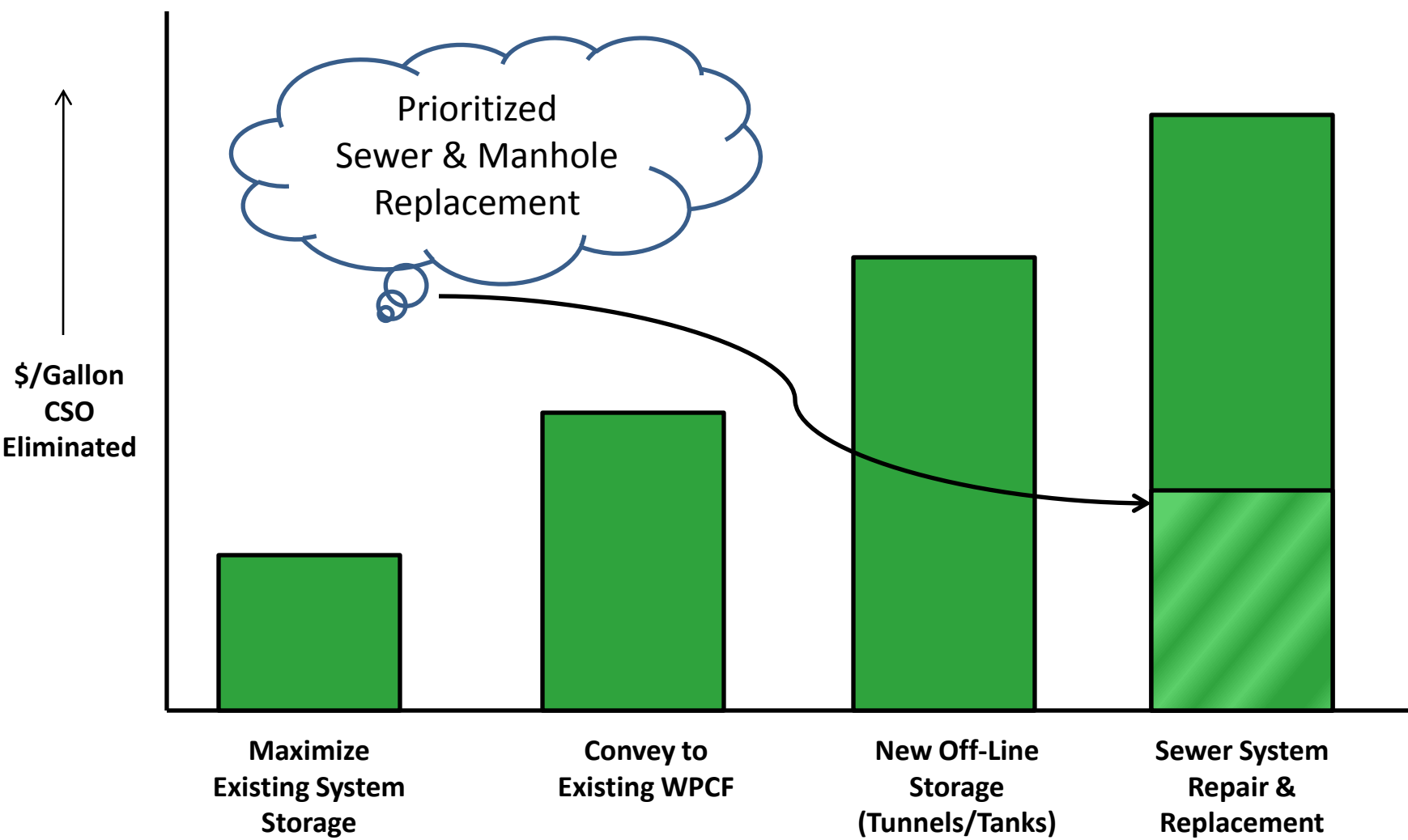


## Elements of a System Master Plan

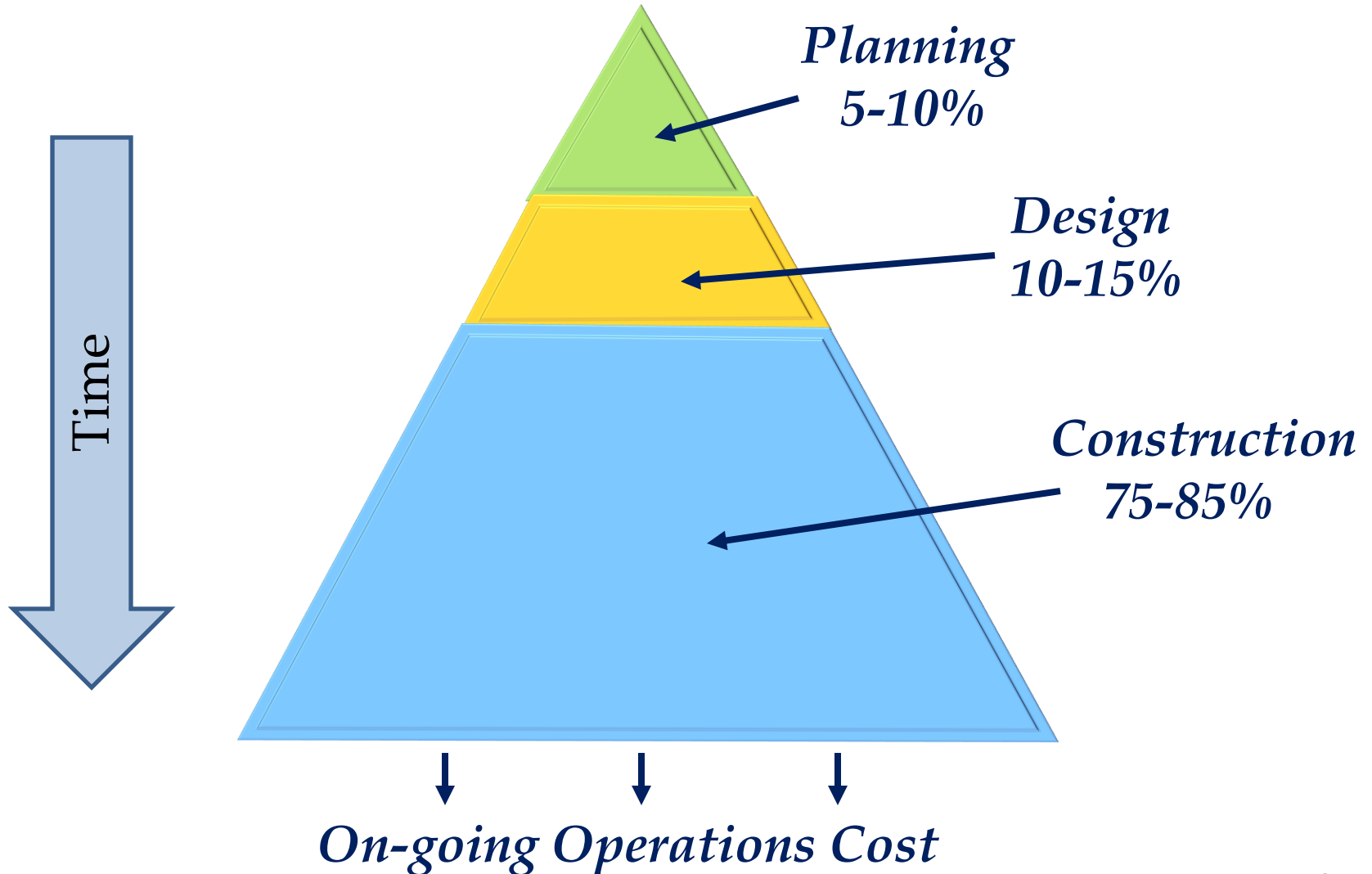
- Which projects will be built
- Cost & Affordability Analysis
  - Using EPA Guidelines & not subjective
- Schedule for projects to be implemented
- Benefits of projects
  - Flow removed from the system
  - Projected reduction in # of overflows

# System Master Plan Allows Newport to Maximize Its Investment

## Typical Relative Costs of Control Technologies



# Typical Program Cost Allocation





# How the CSO Program Affects Rates

- CSO Program work is paid through an enterprise account that consists of:
  - Sewer fees
  - CSO fixed fee
- Only those connected to the sewer system pay these fees (no tax \$)
  - Approximately 9,000 sewer accounts
- The Navy & Middletown are wholesale customers for treatment and pay their share of:
  - Operations & Maintenance
  - Capital investment for infrastructure that serves them

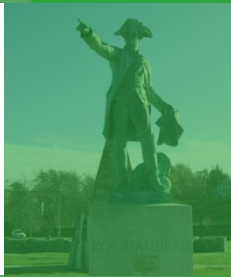
# Strategy to Develop System Master Plan

1. Comply with EPA and RIDEM negotiated CAP requirements
2. Achieve reasonable application of water quality standards
  - Protect King Park Beach
  - Determine the best use of the Washington St. CSO Facility
3. Maximize use of existing facilities
4. Prioritize capital repair & replacement projects
  - Invest in sewerage system for next generations
5. Control Operations & Maintenance (O&M) requirements - (minimize need for new capital facilities)
6. Identify a program & an implementation schedule that is affordable to Newport customers



NEWPORT  
RHODE ISLAND

1639



# SUPPLEMENTAL ENVIRONMENTAL PROJECTS (SEPs)

# What are SEPs?

- 1998 EPA Supplemental Environmental Projects Policy:
  - SEPs are: “...**environmentally beneficial projects** which a defendant/respondent agrees to undertake **in settlement of enforcement action**, but which the defendant/respondent is **not otherwise legally required to perform.**”
  - a penalty mitigation to further EPA’s goals to protect and enhance public health & the environment
    - i.e. do a project rather than pay a penalty

# Potential SEPs for the City of Newport

- Potential SEPs:
  - Pump Out Station @ Anne St. pier
  - Porous Pavement
  - Rain Barrel Program

# Existing Pump Out Facilities in Newport Harbor

## Benefits of a Pump Out Station:

- Would be 1<sup>st</sup> public pump out station in Newport Harbor
- Increase likelihood of compliance with Rhode Island's "No Discharge Area"
- Keep contaminants out of Newport Harbor:
  - Microorganisms – pathogens & bacteria
  - Nutrients
  - Toxic chemicals
- Encourage more boat traffic & visitors to the Anne St. Pier area



Source: RIDEM

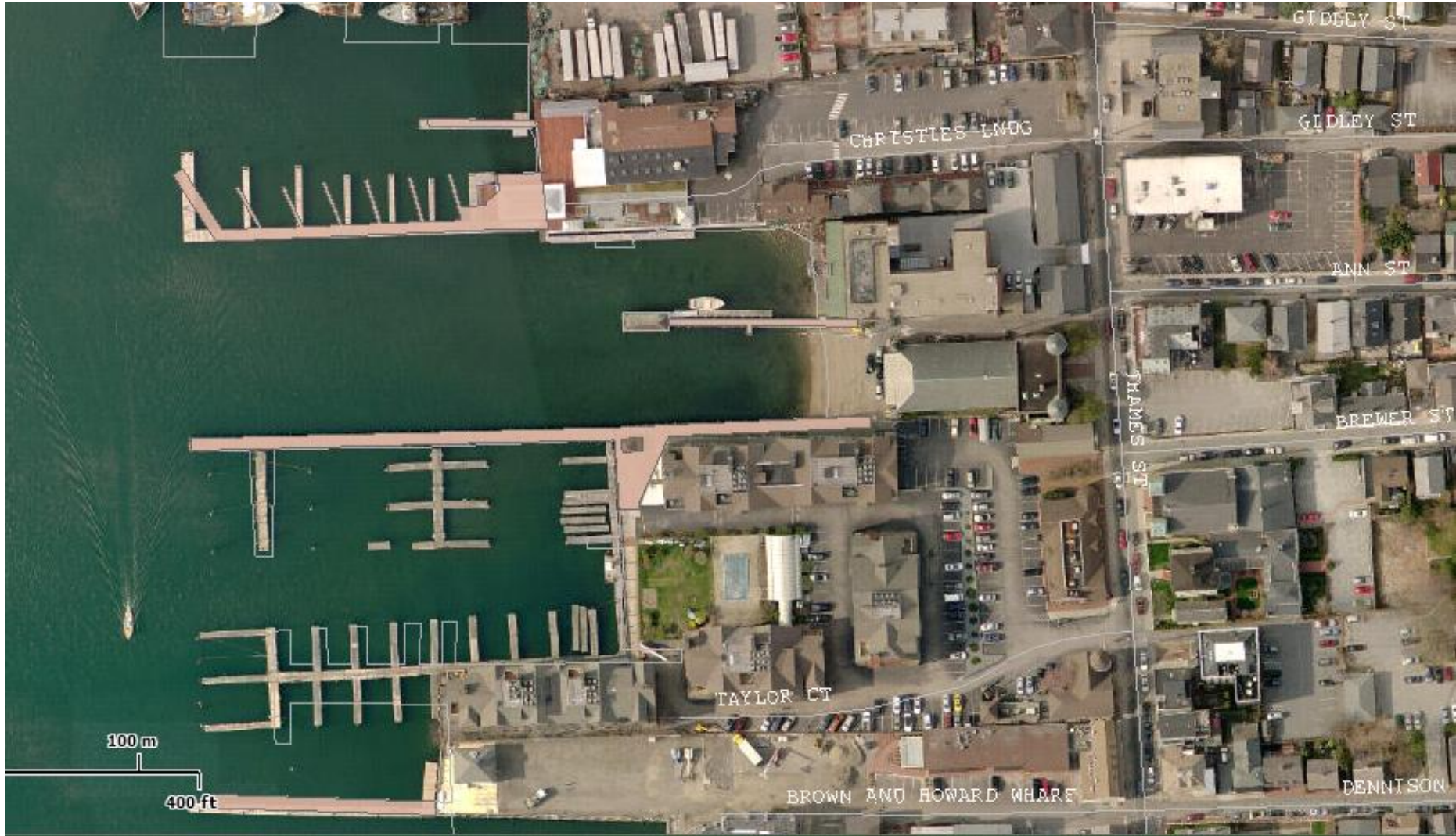
<http://www.dem.ri.gov/programs/benviron/water/shellfish/pump/index.htm>

# Pump Out Station @ Anne St. Pier



NEWPORT  
RHODE ISLAND

1639



# Porous Pavement 101

- What is it?
  - Pavement in which fine particles are kept to a minimum or in which the amount of impervious pavement is minimized
- Why?
  - This allows rainfall to drain through the pavement rather than running off
- Where does the rainfall go?
  - A “bed” beneath the pavement receives rainfall directly on the pavement as well as runoff from other areas



# Example of Porous Pavement



NEWPORT  
RHODE ISLAND

1639



**Standard Pavement**

**Porous Pavement**

# Environmental Benefits of Porous Pavement

- Reduces the amount of impervious surface on a site
- Reduces the discharge of pollutants and improves water quality
- Storage Bed limits the peak discharge and reduces stress on existing conventional sewers

# Where is Porous Pavement Being Used?



NEWPORT  
RHODE ISLAND

1639



# Porous Pavement @ Easton's Beach Parking Lot



NEWPORT  
RHODE ISLAND  
1639



# Porous Pavement @ Mary St. Parking Lot



NEWPORT  
RHODE ISLAND  
1639



# Rain Barrel Program

- Benefits of a Rain Barrel Program:
  - Captures storm flow to reduce run-off & improve groundwater recharge
  - Would encourage water conservation – water can be used for lawn & garden watering during dry conditions
  - Barrels would be provided at no cost
  - Would work well with current extraneous flow program



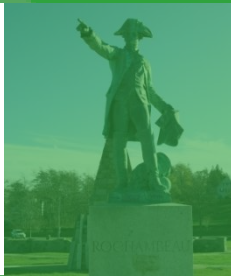
# SEP Discussion

- Comments on proposed potential SEPs
- Other possible SEPs
- City will be preparing preliminary cost estimates to present potential SEPs to EPA



NEWPORT  
RHODE ISLAND

1639



# FUTURE MEETINGS, WRAP-UP & QUESTIONS



# Future Meetings

- Future Meeting Dates
  - Frequency
  - Standing Date (Ex. - 1<sup>st</sup> Thursday)
- Future Meeting Times
  - Trying to maximize participation

# Potential Future Workgroup Agenda

## Topics

- Harbor Water Quality
- Water Pollution Control Facility
- System Metering & Field Investigations
- Public Communications
- System Master Plan elements

# Potential Tour of CSO System

- Purpose: bring all workgroup members to a minimum level of understanding about the CSO system
- Poll level of interest

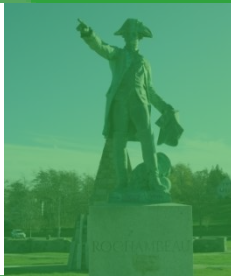


Wellington Ave. CSO Facility



NEWPORT  
RHODE ISLAND

1639



QUESTIONS?