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CSO Program Stakeholder Workgroup: Meeting #3

Newport City Hall – Council Chambers

July 14, 2011

CH2MHILL

Welcome & Introductions

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- City Representatives
  - Julia Forgue – Director of Utilities
- CH2M HILL
  - Mike Domenica – Program Manager
  - Peter von Zweck – Project Manager
  - Becky Weig – Public Involvement
  - Kris Andersen - GIS
  - Dimitri Katehis – WPCP Optimization Study
  - Tom Simbro – CMOM
- Stakeholder Workgroup Participants

Agenda

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- Approval of Previous Minutes
- Overview of the CSO Program Schedule
- Parking Lot Follow-up Items
- Key Meeting Topics
  - GIS
  - WPCP Optimization Study
  - CMOM
- Future Meetings, Wrap-up & Questions

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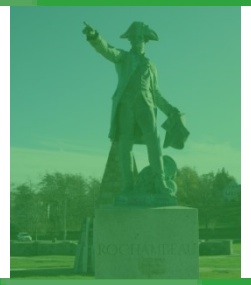


OVERVIEW OF THE STAKEHOLDER WORKGROUP

Schedule of CSO Stakeholder Workgroup Meetings

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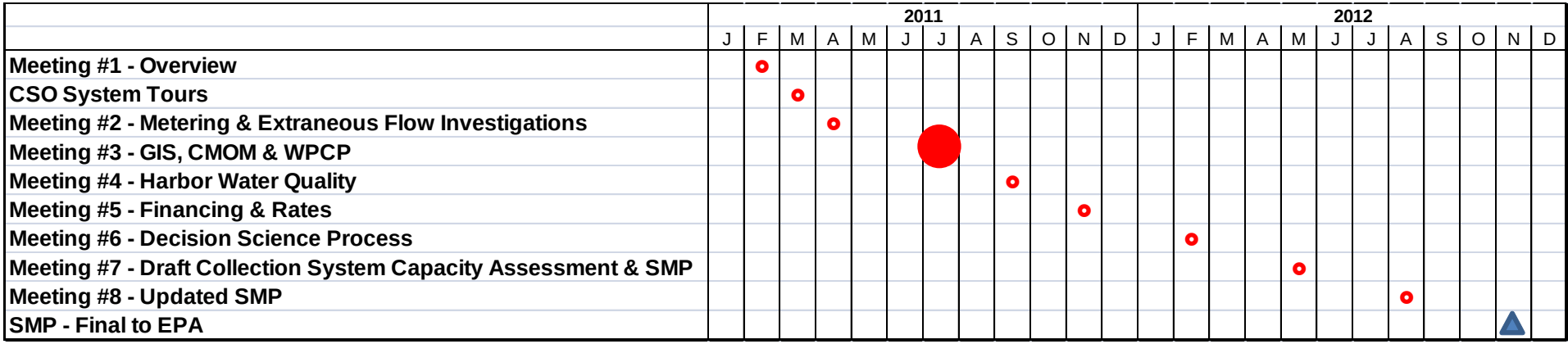

- Schedule developed to meet 2 key objectives:
  - Develop a collective understanding of the CSO Program (Meeting #s 1 – 4 & CSO System Tours)
  - Allow sufficient time for discussion and inclusion of Workgroup comments into the SMP (Meeting #s 5-8)

CSO Program Stakeholder Workgroup Mission Statement

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- 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.

Purpose of the Stakeholder Workgroup

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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

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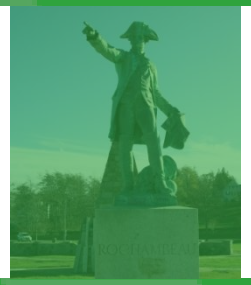


APPROVAL OF PREVIOUS MEETING'S MINUTES

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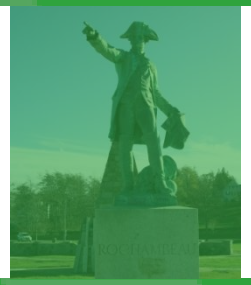


PARKING LOT FOLLOW-UP ITEMS

Parking Lot Question #1

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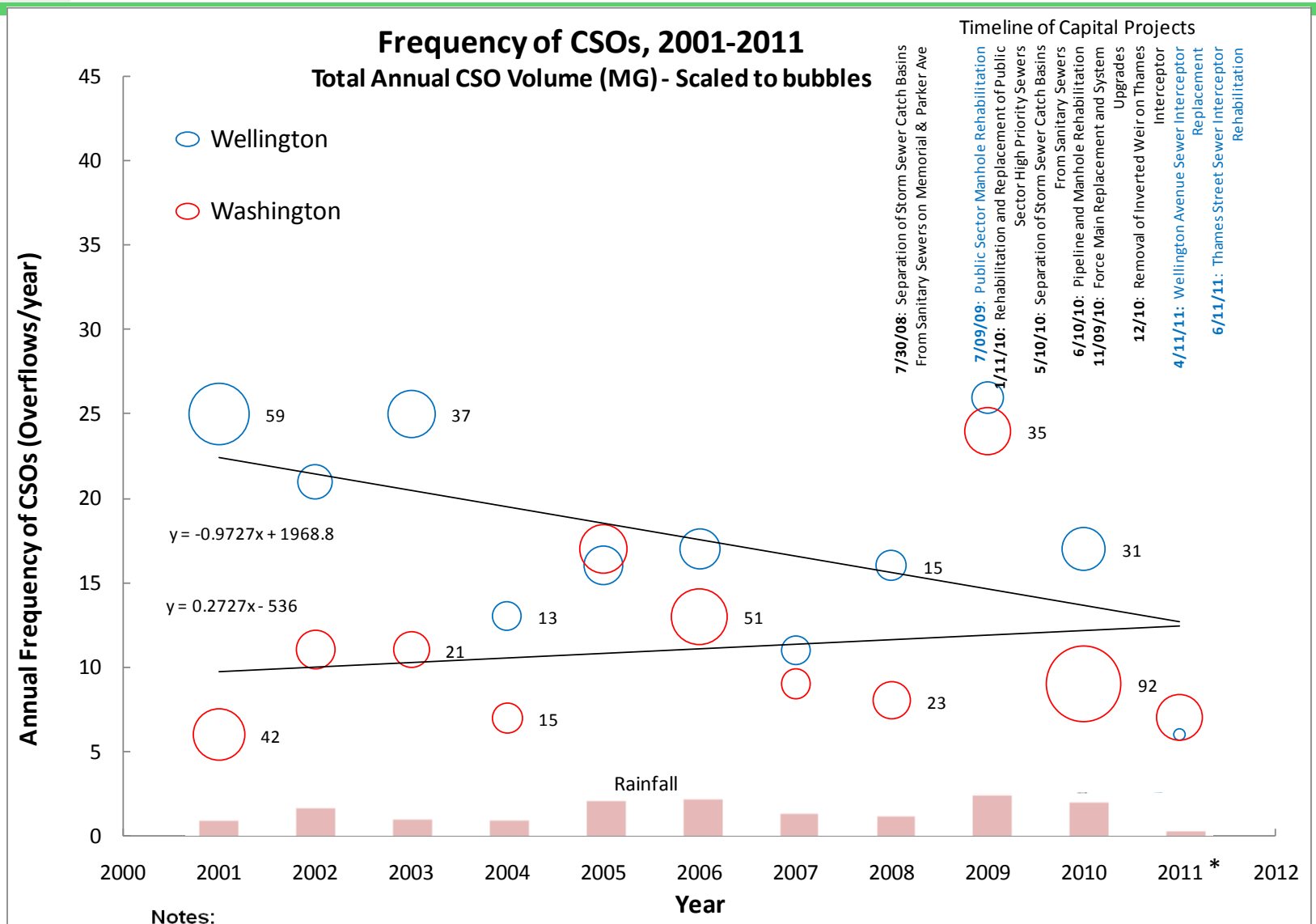
- What are the number of CSO events over time?
  - There are a number of variables to take into account when evaluating CSO events over time:
    - The number, duration and intensity of precipitation events
    - Time of year affects amount of runoff
      - Frozen ground or snow pack – more runoff
      - Dry ground – more infiltration
    - Is a precipitation event defined as a single event or two separate events
    - Was the collection system back to normal operating conditions from previous precipitation events
  - There will be a more exhaustive review of this data in September

CSO Volumes & Frequencies



Notes:
*2011 is a partial data set representing data collected through April 30th.

Parking Lot Question #2

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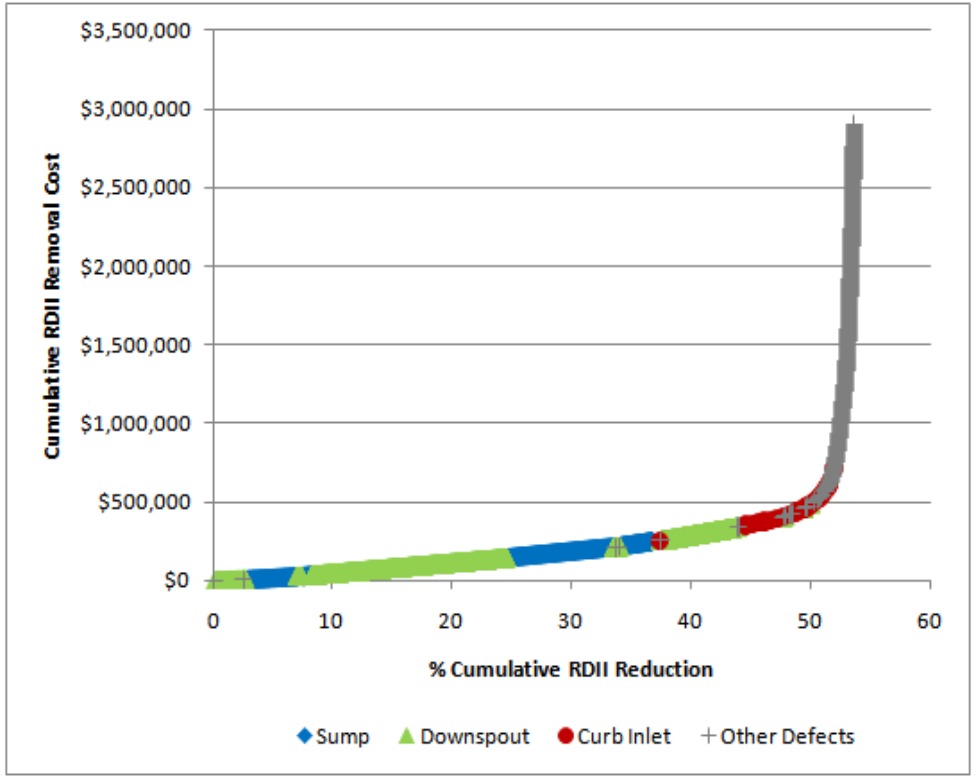
- What is the cost to fix the private defects versus the public benefits?
  - Fixing defects is required by the City's Sewer Service System Ordinance (Chapter 13.08.120 – Use of public sewers.)
  - There will be an associated cost whether repaired or not:
    - Repaired – property owner
    - Unrepaired – all rate payers
  - Wide range of costs will be evaluated in SMP



Results for Wellington Catchment

Parking Lot Question #3

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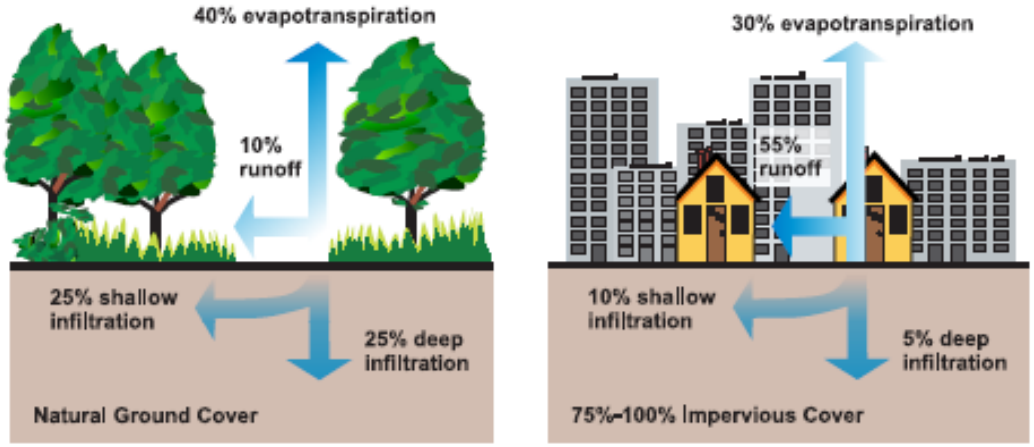
- What is the point of insisting on private defect disconnection if the stormwater is then routed to a public connection? What is the public policy about these disconnection requirements?
  - Ideally disconnections would be discharged to lawns and gardens to facilitate recharge
    - Especially good for downspouts



Pre-development and post-development hydrology (USDA).

EPA, 2009.

Parking Lot Question #4

- What can private property owners do if the area is poor draining soil or there are not adequate catch basins?
  - Would be reviewed on a case by case basis, but this is not typical
  - Rain barrels for downspouts
  - Rain garden
  - Contact the City about catch basins
  - Previous downspout disconnections has not caused flooding issues

Parking Lot Question #5

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- Can the City provide follow-up to technical agenda items as more information is obtained?
  - Technical topics can be returned to when there is new information
    - Revisited at a meeting
    - New reports made available for review
  - Stakeholders should suggest topics they would like receive follow-up information
  - All technical topics will be part of the SMP which the workgroup will have an opportunity to review

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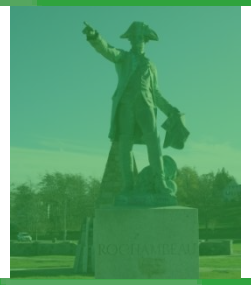


KEY MEETING TOPICS

GIS
WPCP OPTIMIZATION STUDY
CMOM

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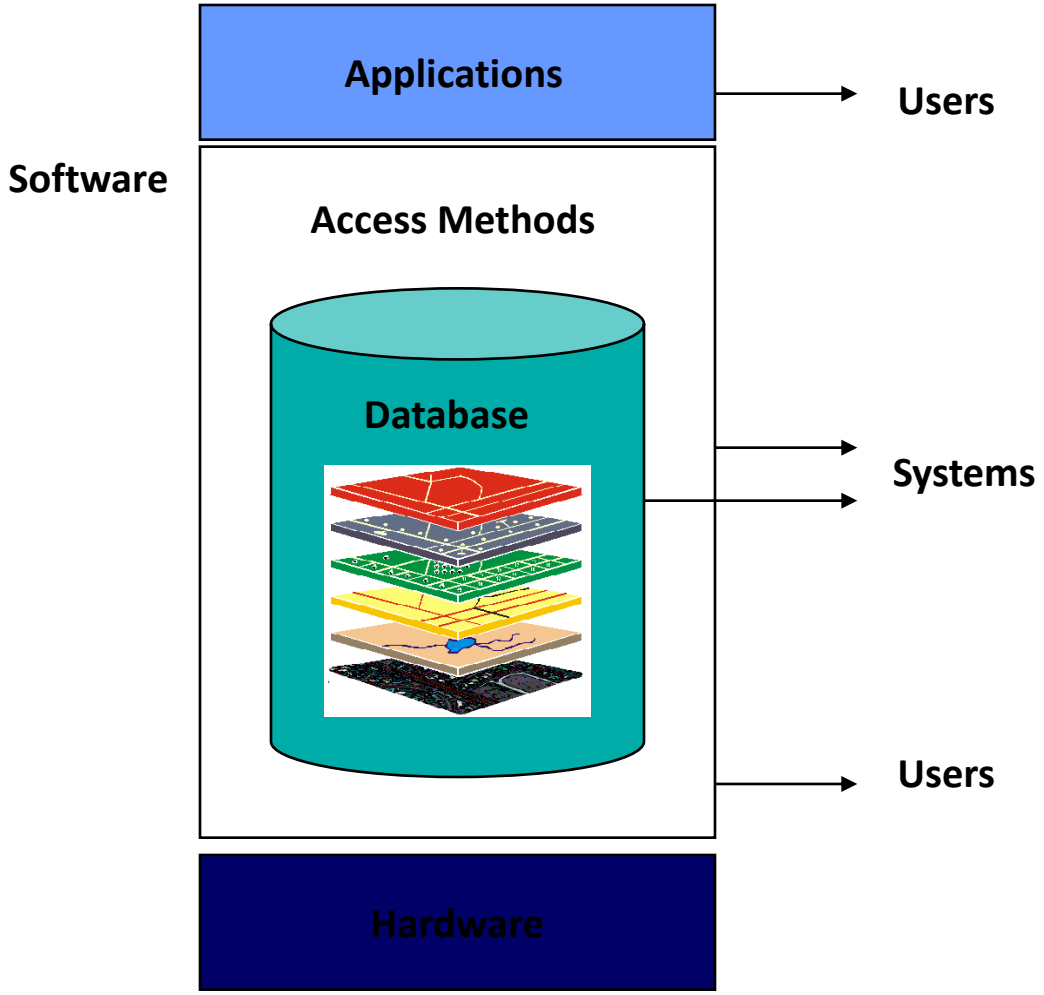
GIS

What is GIS?

- A geographic information system (GIS) integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.



What are the benefits of GIS for utilities?

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- A GIS helps you answer questions and solve problems by looking at your data in a way that is quickly understood and easily shared.
- 75% of data used by utilities can be shown on a map.
- Easy reporting (EPA, RIDEM, Local Agencies)
- Integration with intermunicipal agencies.

EPA CAP requirements

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Infrastructure
Separate Portion of the Collection System (including inter-municipal connections);
Combined Portion of the Collection System;
Municipal separate storm sewer system (including inter-municipal and private connections where available);
Thematic representation of sewer material, size, and age;
Sewer flow direction and flow type (e.g., pressure, vacuum, gravity);
Select rim and invert elevations (for comparison with water table and vertical separation between systems);
Aerial delineations of major separate storm sewer catchment areas, sanitary sewersheds, combined sewersheds, and areas served by on-site subsurface disposal systems;
Common/twin-invert manholes or structures (i.e., structures serving or housing both separate storm and sanitary sewers);
Sanitary and storm sewer alignments served by known or suspected under drain systems;
Sewer alignments with common trench construction and major crossings representing high potential for communication during high groundwater conditions;
Pump stations (public and private), and other key sewer appurtenances;
Sewersheds or sewer alignments experiencing inadequate level of service (with indication of reason(s));
Location(s) of known sanitary sewer overflows (“SSOs”) (with indication of cause(s)); and
Location of all catch basins and their respective discharge locations

Base Map
Street names
Private property delineations
Water Resources and Topographic Features
Water bodies and watercourses identified by name;
Seasonal high water table elevations or sanitary sewer alignments impacted by groundwater; and
Topography.
Prior Extraneous Flow Investigations, Remediation, and Capital Projects
Alignments, dates, and thematic representation of work completed (with legend) of past extraneous flow investigations (e.g., flow isolation, dye testing, CCTV, etc.);
Locations of suspected, confirmed, and corrected illicit discharges (with dates and flow estimates) to the Separate Portion of the Collection System;
Recent and planned sewer infrastructure cleaning and repair projects;
Alignments and dates of past and planned Infiltration/Inflow (“I/I”) investigations and sanitary sewer remediation work;
Planned Collection System and storm sewer system capital projects; and
Proposed phasing of future extraneous flow reduction measures.

History of Collection System GIS in Newport

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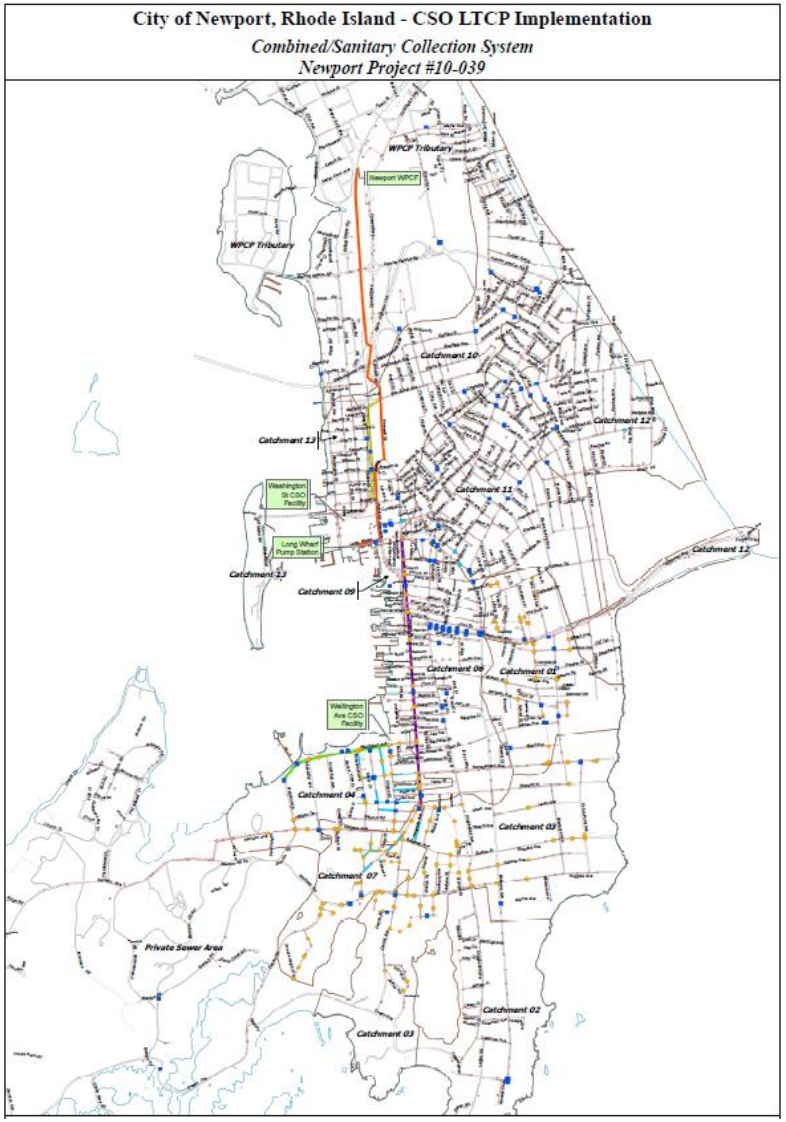
- GIS Originally Constructed
  - Part of service agreement for contract operations awarded in 2000 and GIS work started in 2002-2003
- Methodology for building GIS
  - GPS survey to identify location of point features
    - Catch Basins
    - Manholes
    - Outfalls
  - Wall maps used to create connectivity.
- GIS has been handed down contractor to contractor



History of Collection System GIS in Newport

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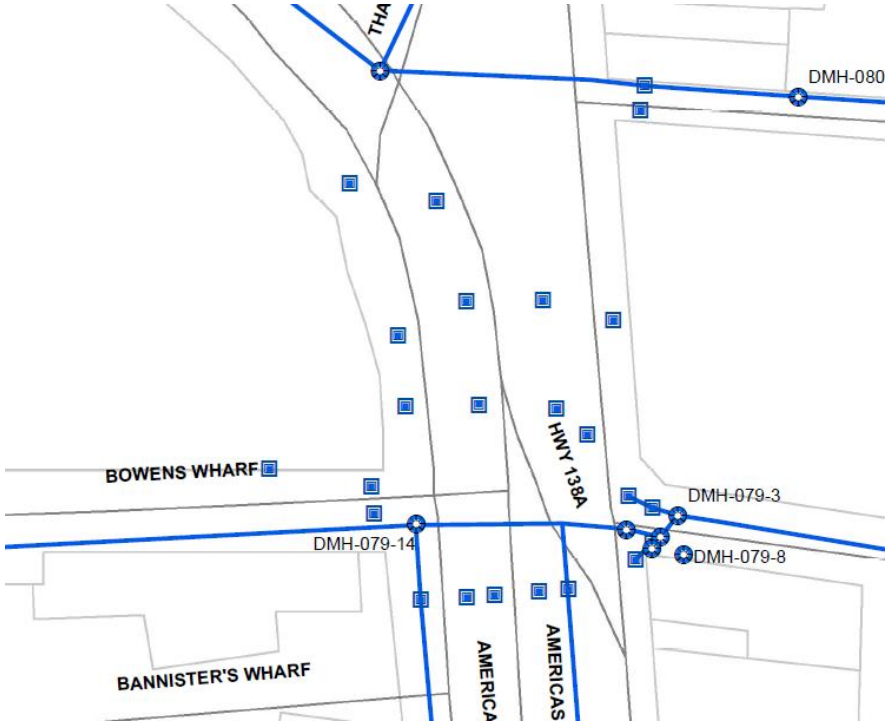
- The Good
  - Efficient data collection.
  - Large volume of available data
  - Quality data available from the State.
- Needs Improvement
  - Data gaps
  - Spatial accuracy
  - QA/QC



The Path Forward

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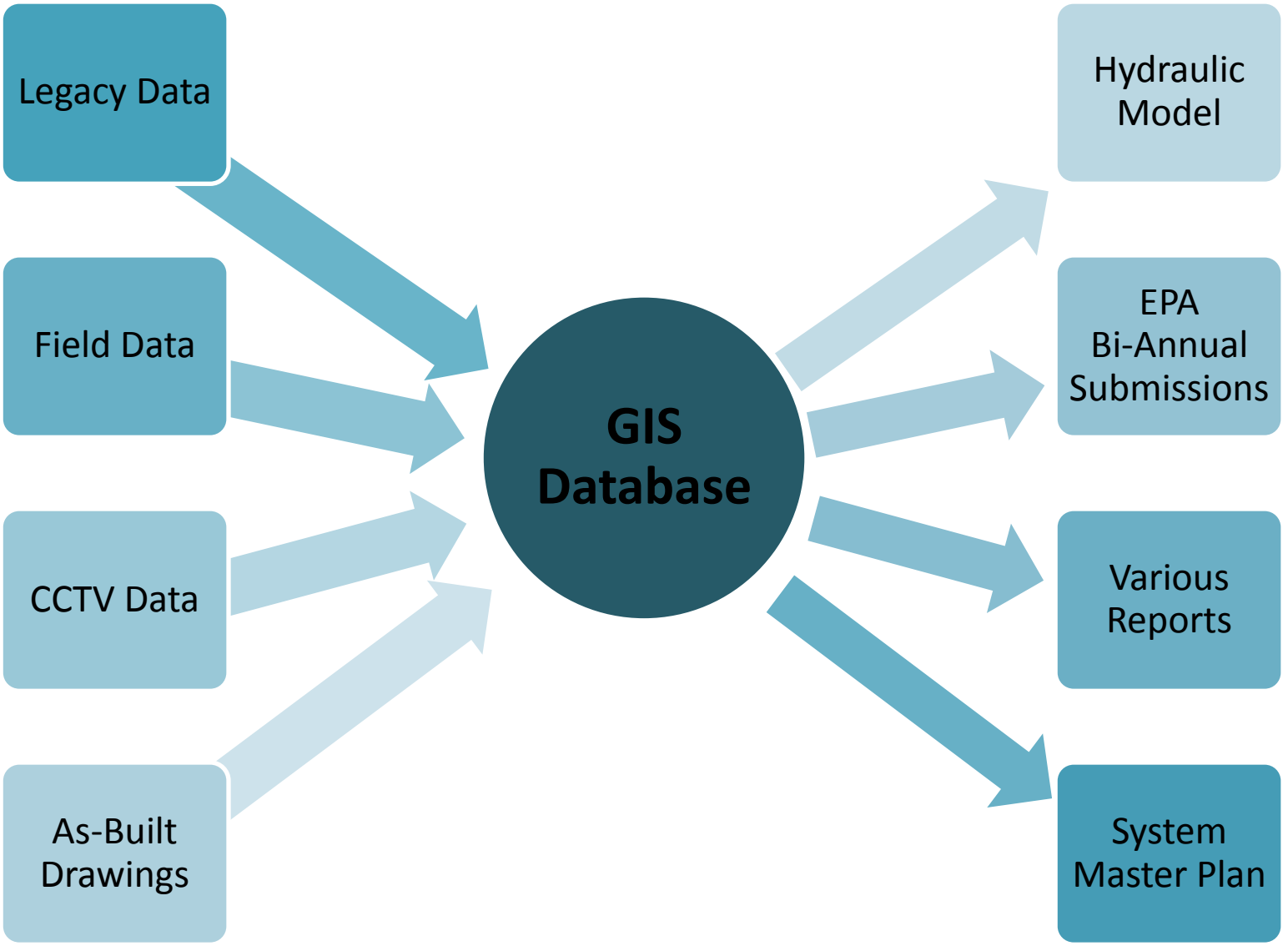

Corrections – Record Drawings

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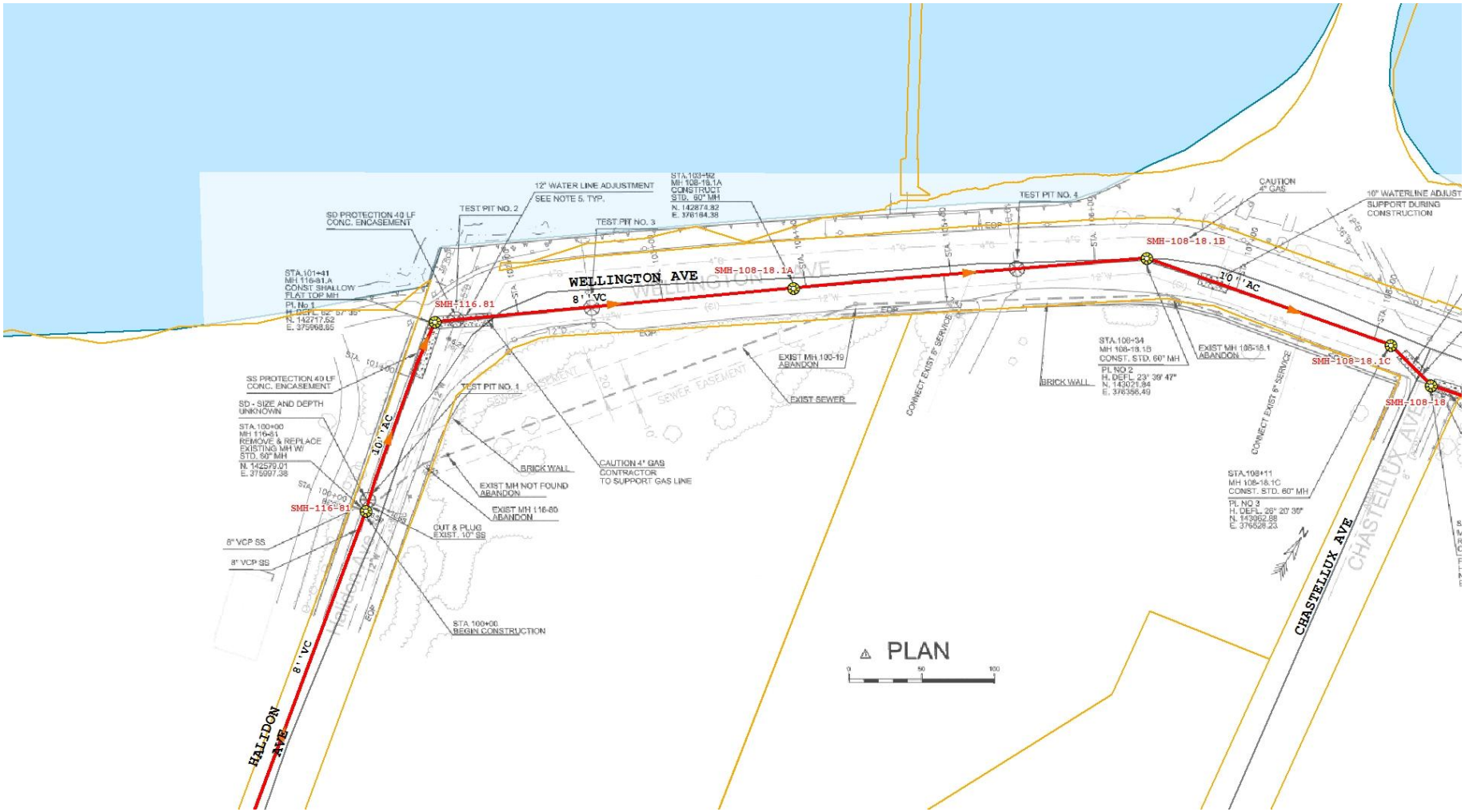

Corrections – Field Work (Storm)

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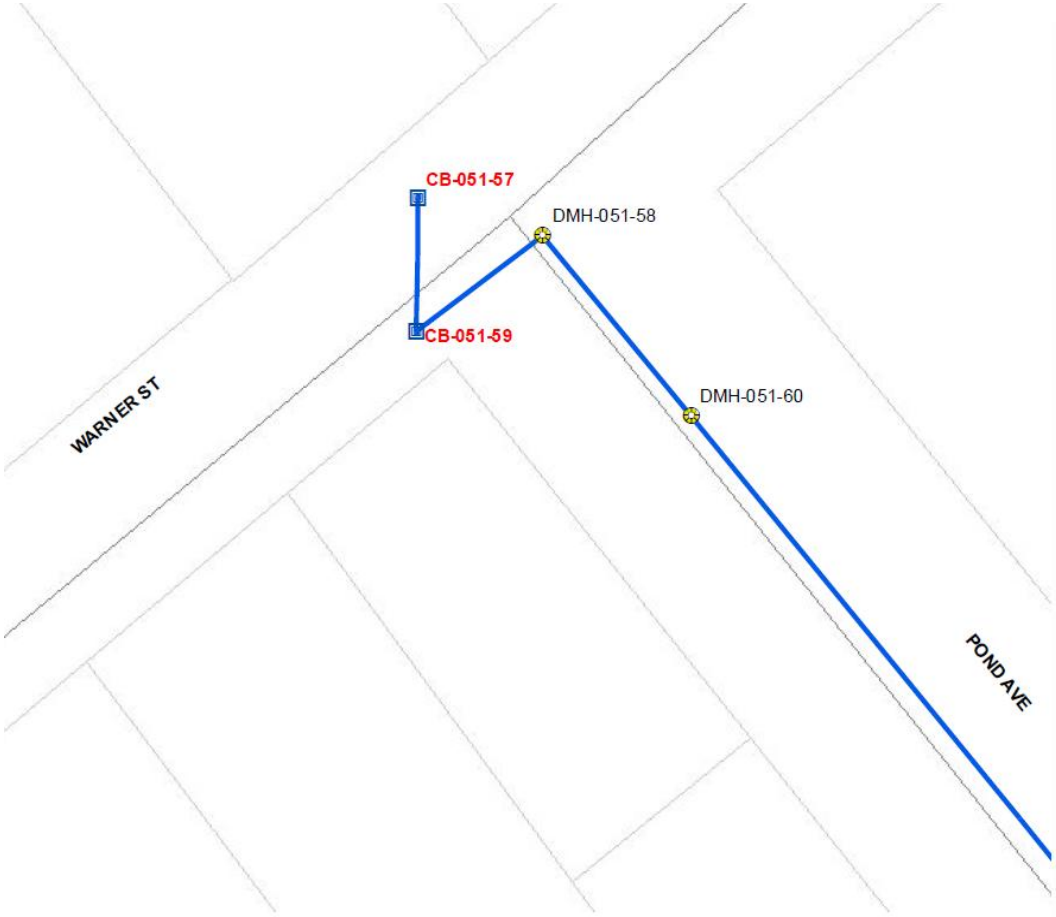


Date: 04/21/11
Crew: WB

CATCH BASIN INSPECTION
City of Newport
Project No. 10-039

Catch Basin No. (11) CB-051-59
Street: 42 POND St.

Location:
☒ Identified on map correctly
o GPS coordinates from ArcViewer:
o Stored in GPS Unit

Precipitation: 1
1 = Dry, 2 = Light Rain, 3 = Heavy Rain, 4 = Snow

Ground Conditions: 1
1 = Dry, 2 = Damp, 3 = Wet, 4 = Standing Water

Last Rain ✓ Snow ___ Date: 4/21/11

Connected to:
Sanitary ___ Storm X Unknown ___
Up Manhole ( ) CB-051-57
Down Manhole ( ) DMH-051-58

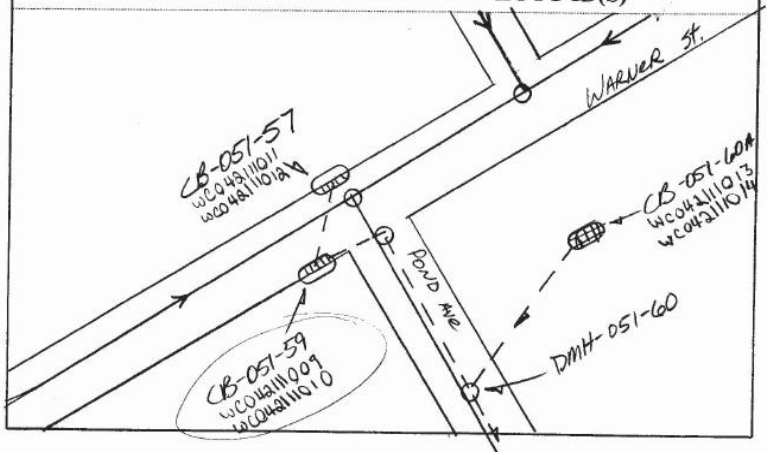
☒ Inspected Location Code: 1
Reason Not Inspected: ___
1 = D.N.E.
2 = Traffic
3 = Other

1 = Road Curbside
2 = Alley
3 = Earthen Ditch
4 = Parking Lot
5 = Driveway
6 = Sidewalk

Further Action Required:
- o Clean Out
- o Dye Test

Comments:
PINGS = NEG
WC04211009
WC04211010

CATCH BASIN SKETCH AND PHOTO ID(S)



Corrections – Field Work (Sanitary)

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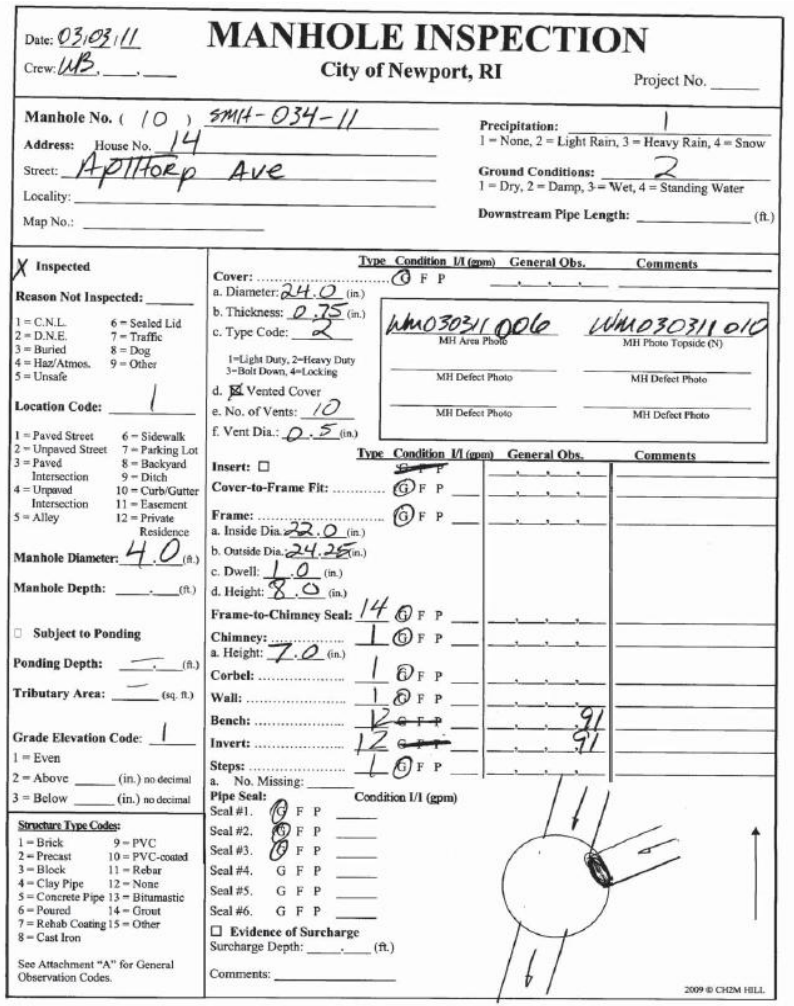

MANHOLE INSPECTION
City of Newport, RI

Date: 03/03/11
Crew: MB
Project No.

Manhole No. (10) SMH-034-11
Address: House No. 14
Street: Apthorp Ave
Locality:
Map No.:

Precipitation: 1 (1 = None, 2 = Light Rain, 3 = Heavy Rain, 4 = Snow)
Ground Conditions: 2 (1 = Dry, 2 = Damp, 3 = Wet, 4 = Standing Water)
Downstream Pipe Length: (ft.)

X Inspected
Reason Not Inspected:
1 = C.N.L. 2 = D.N.E. 3 = Buried 4 = Haz/Atmos. 5 = Unsafe 6 = Sealed Lid 7 = Traffic 8 = Dog 9 = Other
Location Code: 1
1 = Paved Street 2 = Unpaved Street 3 = Paved Intersection 4 = Unpaved Intersection 5 = Alley 6 = Sidewalk 7 = Parking Lot 8 = Backyard 9 = Ditch 10 = Curb/Gutter 11 = Easement 12 = Private Residence
Manhole Diameter: 4.0 (ft.)
Manhole Depth: (ft.)
☐ Subject to Ponding
Ponding Depth: (ft.)
Tributary Area: (sq. ft.)
Grade Elevation Code: 1
1 = Even
2 = Above (in.) no decimal
3 = Below (in.) no decimal

Structure Type Codes:
1 = Brick 2 = Precast 3 = Block 4 = Clay Pipe 5 = Concrete Pipe 6 = Poured 7 = Rehab Coating 8 = Cast Iron 9 = PVC 10 = PVC-coated 11 = Rebar 12 = None 13 = Bitumastic 14 = Grout 15 = Other
See Attachment "A" for General Observation Codes.

	Type	Condition	I/I (gpm)	General Obs.	Comments
Cover:	G	F P			
a. Diameter: 24.0 (in.)					
b. Thickness: 0.75 (in.)					
c. Type Code: 2 (1=Light Duty, 2=Heavy Duty, 3=Bolt Down, 4=Locking)					
d. ☒ Vented Cover					
e. No. of Vents: 10					
f. Vent Dia.: 0.5 (in.)					
Insert: ☐					
Cover-to-Frame Fit:	G	F P			
Frame:	G	F P			
a. Inside Dia. 22.0 (in.)					
b. Outside Dia. 24.25 (in.)					
c. Dwell: 1.0 (in.)					
d. Height: 8.0 (in.)					
Frame-to-Chimney Seal: 14	G	F P			
Chimney: 1	G	F P			
a. Height: 7.0 (in.)					
Corbel: 1	G	F P			
Wall: 1	G	F P			
Bench: 12	G	F P			91
Invert: 12	G	F P			91
Steps: 1	G	F P			
a. No. Missing:					

MH Area Photo: WM030311 0006
MH Photo Topside (N): WM030311 010
MH Defect Photo
MH Defect Photo
MH Defect Photo
MH Defect Photo

Pipe Seal: Condition I/I (gpm)
Seal #1. G F P
Seal #2. G F P
Seal #3. G F P
Seal #4. G F P
Seal #5. G F P
Seal #6. G F P

☐ Evidence of Surcharge
Surcharge Depth: (ft.)
Comments:

2009 © CH2M HILL

Corrections – CCTV

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Pipe Condition Scores from CCTV Inspections

Products Created - Maps

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- Sanitary and Combined Sewer System Base Map
- Sanitary and Combined Sewer System and Subcatchments Map
- Sewer System and Subcatchments Map
- Sanitary and Combined Sewer System Infrastructure Map
- Sanitary and Combined Sewer System Pipe Age Map
- Sanitary and Combined Sewer System Condition and Performance Map
- Storm Water System Base Map
- Storm Water System and Subcatchments Map
- Private Extraneous Flow Investigation Map
- Topographic – Shaded Relief Map

Map Products

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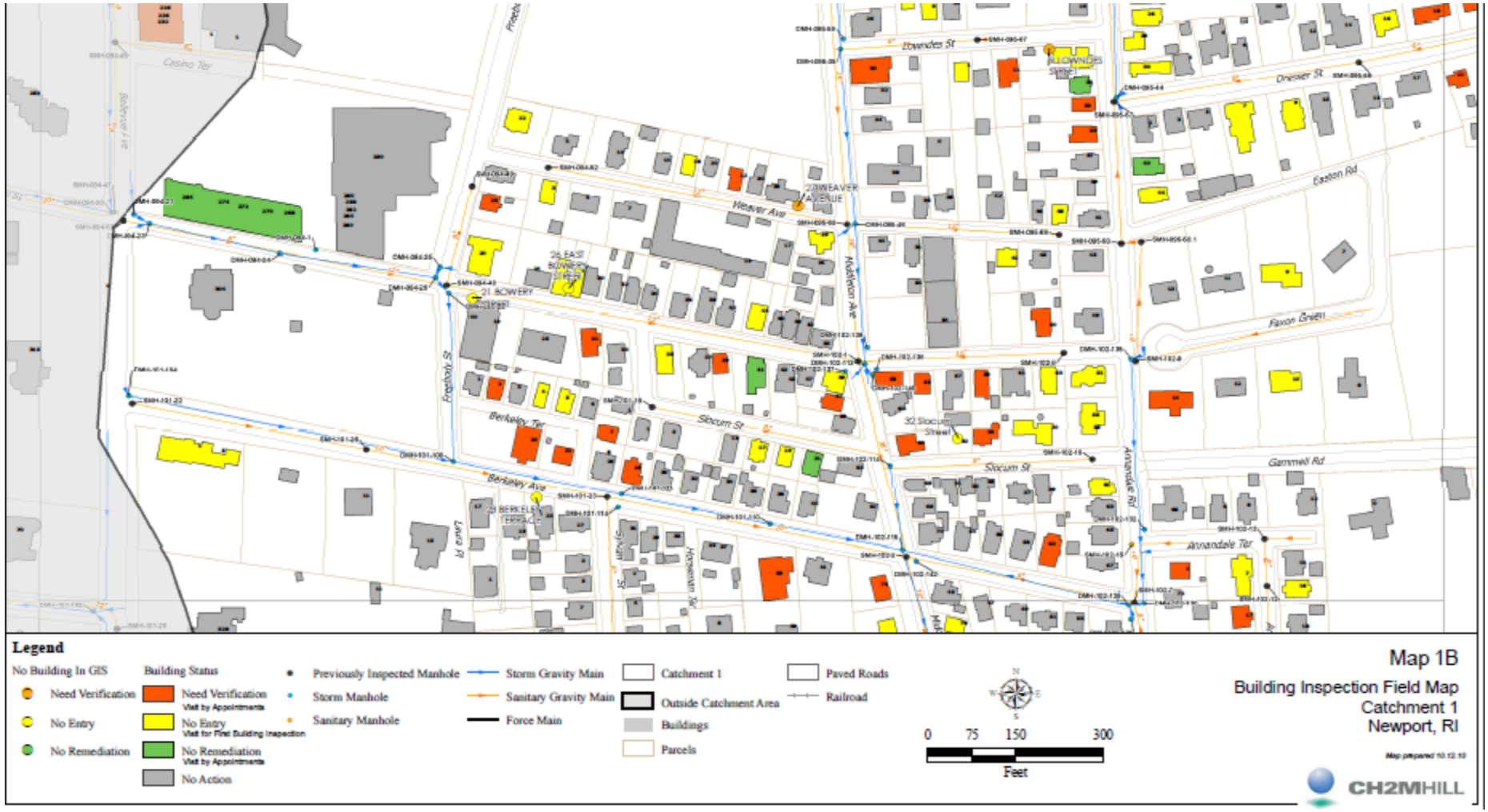

Products Created - Online GIS Viewer

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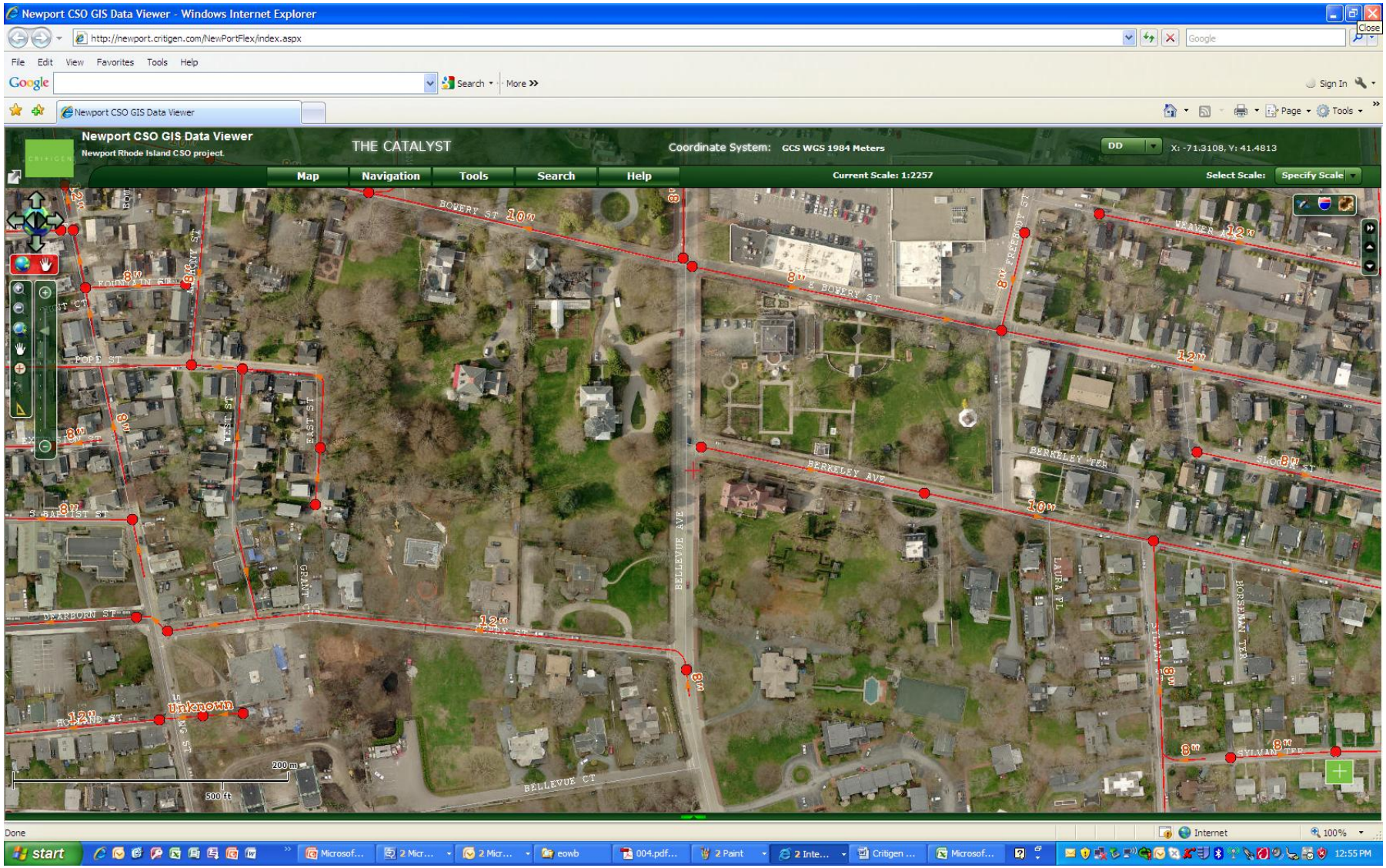

Benefits of GIS to the City

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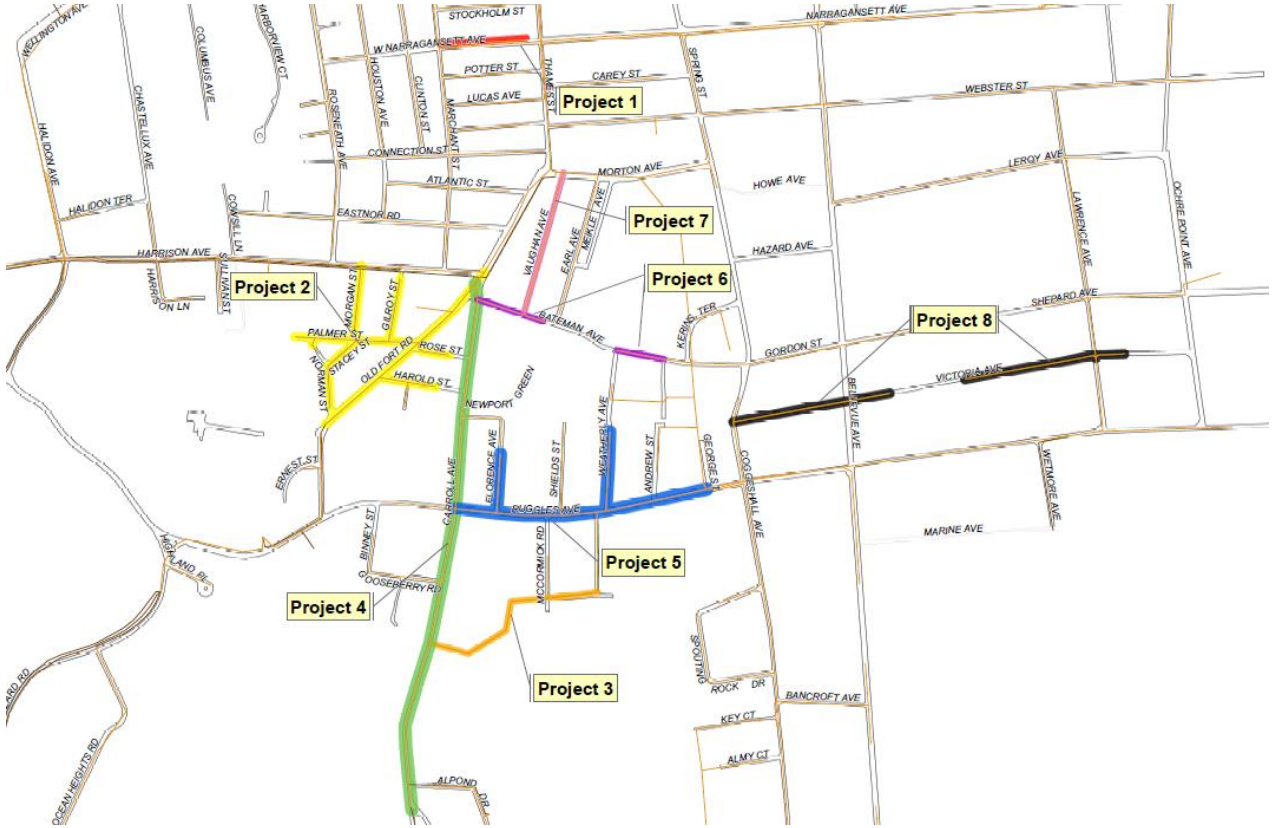
- Support field program
- Support modeling
- CIP prioritization



Next Steps

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- Continue to add data from field program
- Incorporation of CCTV data
- Creation of an as-built document library
- Continue to add as-built documents
- Semi-annual updates to EPA/RIDEM
- GIS Implementation Plan

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WATER POLLUTION CONTROL PLANT OPTIMIZATION STUDY

Purpose of the WPCP Optimization Study

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- Determine if more flow can be directed to the plant during wet weather
  - Increase daily average flow from 10.7 MGD to 15.7 MGD on a per month basis
  - Maintain compliance with all other conditions of permit
- Evaluate if short-term measures can rapidly reduce CSO volumes and frequencies
- Long term improvements will be included in System Master Plan (SMP)

Newport WPCP Schematic

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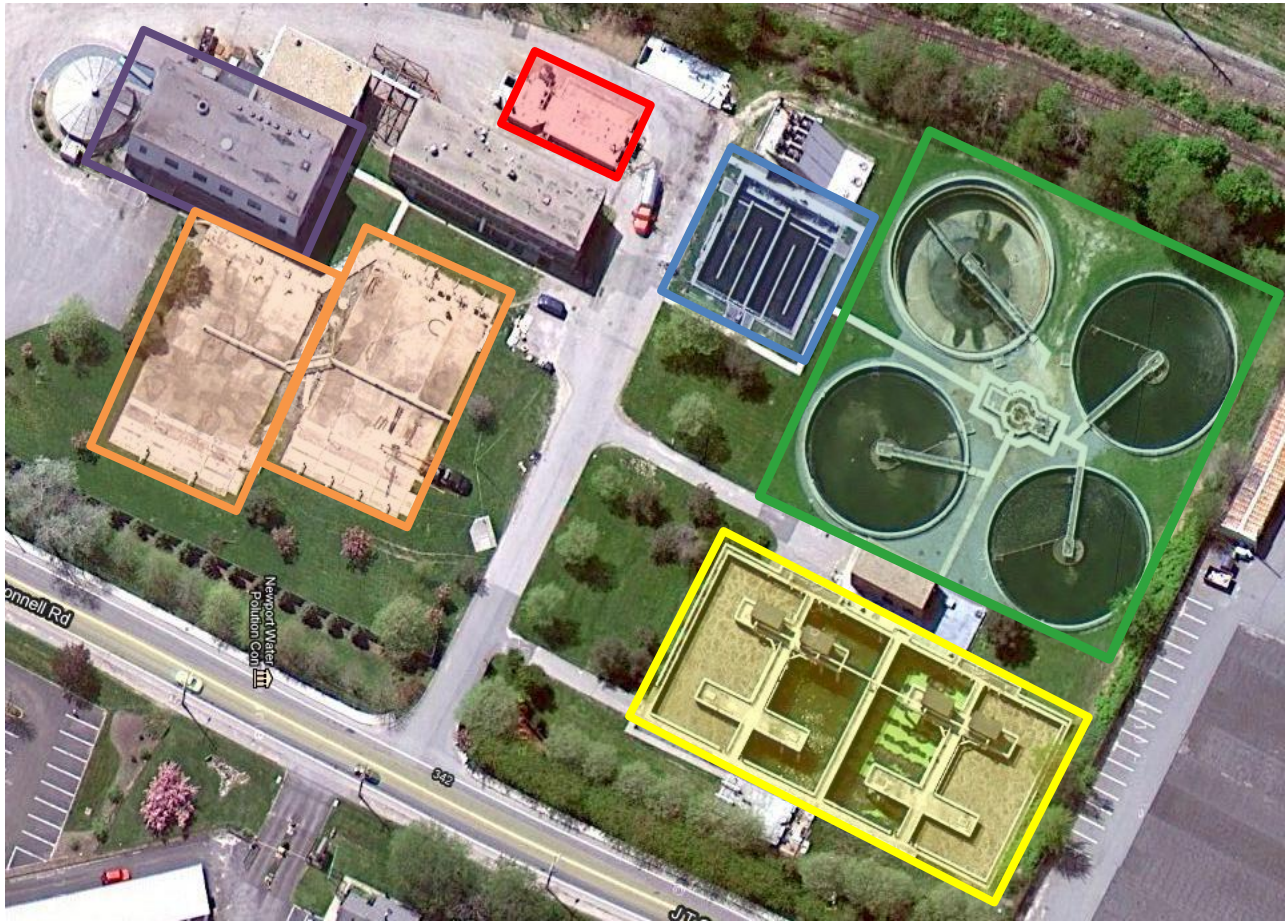
Treatment Steps

- Preliminary
- Primary
- Activated Sludge
- Secondary Clarifiers
- Disinfection
- Solids Handling

City operated from construction through 2001

Contract ops began Feb 2001 by Earth Tech

Operated by United Water November 2008 - present



Approach to Optimization Study

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- Performed an analysis of historical flows and plant performance relative to existing permit
- Performed an analysis of the hydraulic capacity of each unit process at the WPCP
- Performed an analysis of the effectiveness of each unit process at the WPCP
- Completed field tests to evaluate the feasibility of using chemically enhanced primary treatment (CEPT)
  - CEPT – adding additional chemicals (i.e. ferric chloride or alum) to the primary clarifiers get more solids settling

WPCP Permit Limits

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Discharge Limitations – Per Month					
Effluent Characteristic	**Daily Avg.**	**Maximum Day**	**Average Month**	**Average Week**	**Maximum Day (concentration)**
Flow	10.7 mgd	19.7 mgd			
BOD_5	2,677 lb/d	4,462 lb/d	30 mg/L	45 mg/L	50 mg/L
BOD_5 - % Removal	85%				
TSS	2,677 lb/d	4,462 lb/d	30 mg/L	45 mg/L	50 mg/L
TSS - % Removal	85%				
Oil & Grease	Monitor				--- mg/L
Fecal Coliform			200 MPN/100 ml	400 MPN/100 ml	400 MPN/100 ml
Total Residual Chlorine			590 ug/l		860 ug/L
pH			6.0 SU Minimum		9.0 SU Maximum
Settleable Solids	Monitor			--- ml/l	
TKN(May1-October 31st)	Monitor				--- mg/L
Nitrate(May 1 – October 31st)	Monitor				--- mg/L
Nitrite (May 1- October 31st)	Monitor				--- mg/L

Findings of the WPCP Optimization Study

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- Permit challenges
  - Flow limit of 10.7 MGD on monthly average basis
  - Permit limits require 85% removal of Total Suspended Solids (TSS)
    - Not Viable for Secondary Treatment Processes When Influent TSS is Less Than ~100 mg/L

Newport WPCP Historical Flow Data 2008-2009			
	Million Gallons per Day (MGD)		
	Daily Avg.	Max. Month Daily Avg.	Max. Day
Plant Effluent Flow	10.36	15.29	20.82
Permit Limits	10.7	10.7	19.7

Wet Weather Flows Are A Challenge

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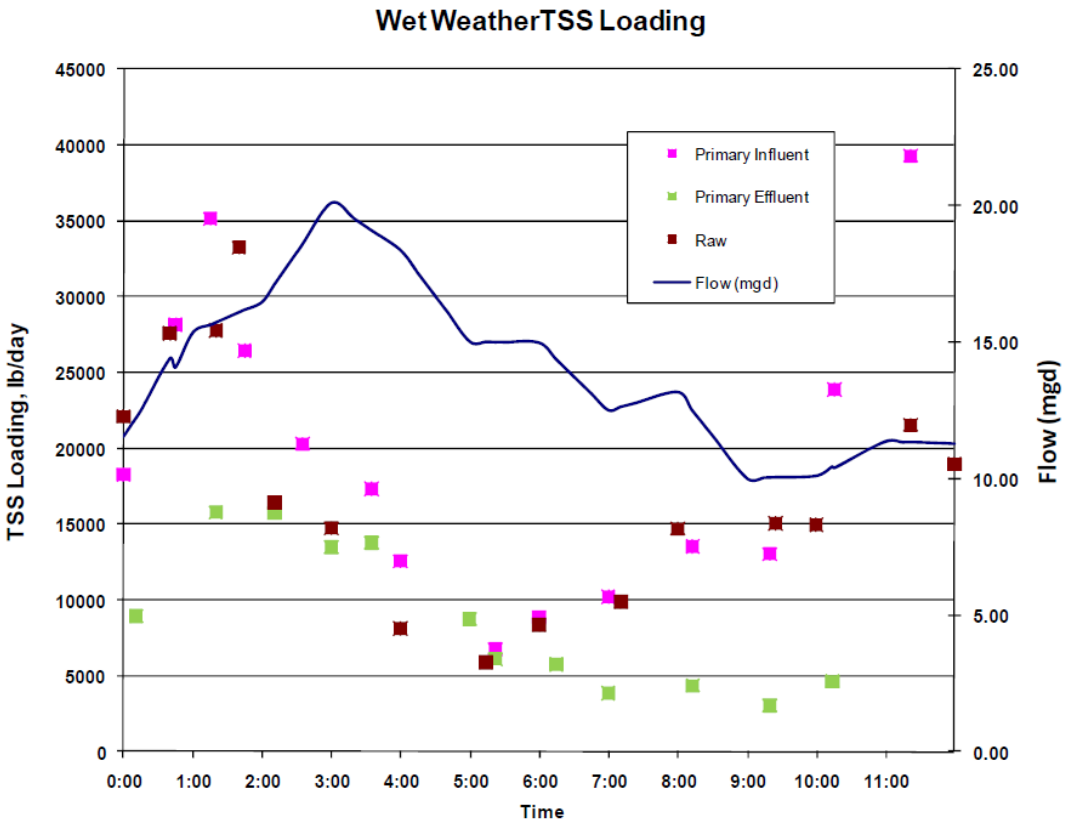
- High Flows Elevate Organic Loadings
  - First Flush
  - Extended Dilution
- Preliminary and Primary Treatment Challenged
- Spillover Effects to Activated Sludge



Findings of the WPCP Optimization Study

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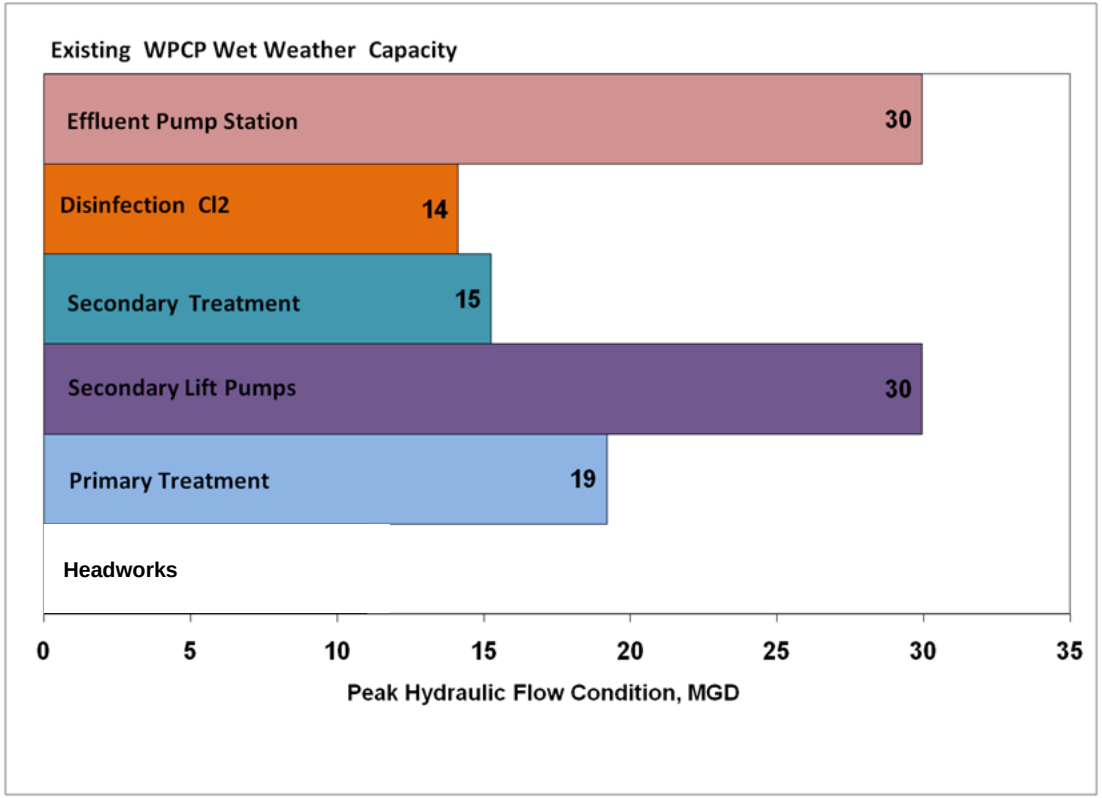
- Plant can not take additional flow during wet weather in its current condition:
  - Limited solids handling & grit removal at headworks
  - Increased downtime of primary clarifiers
  - Reduction in secondary treatment capacity
  - Limited capacity at disinfection facility
  - Limited capacity for solids processing



Findings of the WPCP Optimization Study

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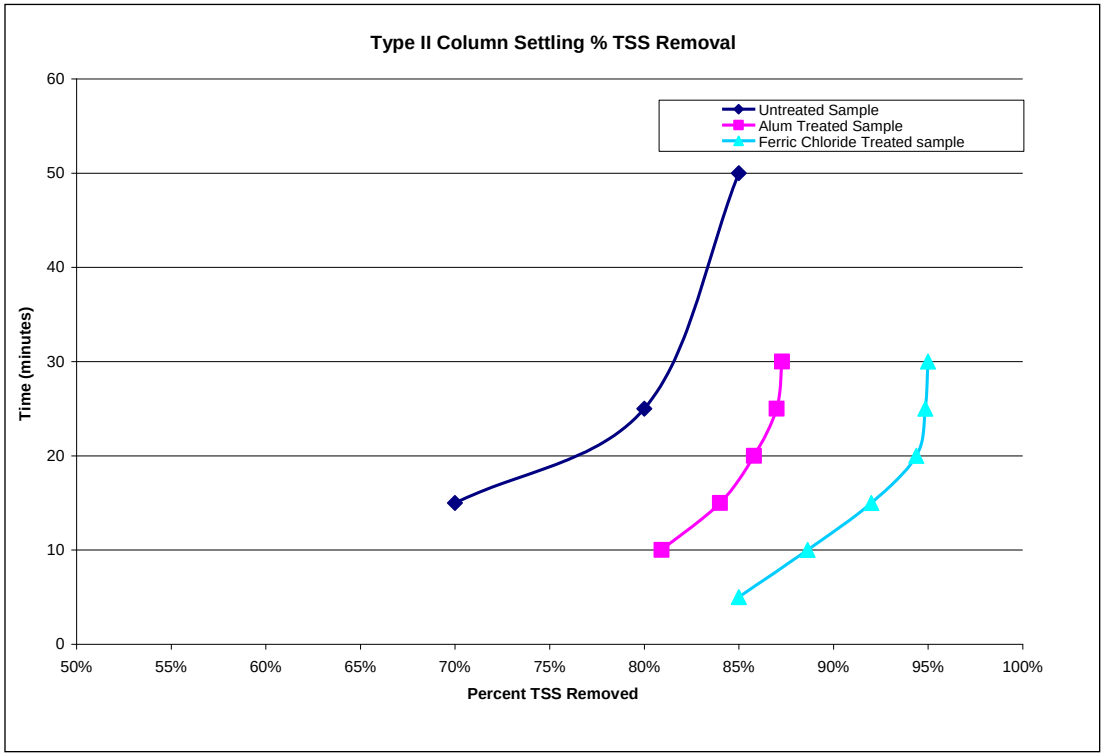
- The purpose of the CEPT evaluation was to:
  - Estimate potential performance of the existing primary clarifiers with CEPT
  - Estimate the optimal coagulant dosage under wet weather conditions
  - Assess the CEPT process ability to increase the monthly average treatment plant capacity up to or in excess of 15.7 MGD



Conclusions from the WPCP Optimization Study

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Study concluded that no interim flow increases were feasible.

Discharge Limitations – Per Month					
Effluent Characteristic	**Daily Avg.**	**Maximum Day**	**Average Month**	**Average Week**	**Maximum Day (concentration)**
Flow	10.7 mgd	19.7 mgd			
BOD_5	2,677 lb/d	4,462 lb/d	30 mg/L	45 mg/L	50 mg/L
BOD_5 - % Removal	85%				
TSS	2,677 lb/d	4,462 lb/d	30 mg/L	45 mg/L	50 mg/L
TSS - % Removal	85%				
Oil & Grease	Monitor				--- mg/L
Fecal Coliform			200 MPN/100 ml	400 MPN/100 ml	400 MPN/100 ml
Total Residual Chlorine			590 ug/l		860 ug/L
pH			6.0 SU Minimum		9.0 SU Maximum
Settleable Solids	Monitor			--- ml/l	
TKN(May1-October 31st)	Monitor				--- mg/L
Nitrate(May 1 – October 31st)	Monitor				--- mg/L
Nitrite (May 1- October 31st)	Monitor				--- mg/L

Recommendations from the WPCP Optimization Study

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- Complete interim repairs and replacements to enhance reliability of existing treatment processes:
  - Installation of chemical induction mixers in the chlorine tanks to improve mixing and bacteria kill
  - Retrofitting of the primary effluent lift screw pumps with submersible pumps
  - Rehabilitation of the secondary clarifiers
  - Rehabilitation of primary clarifiers
  - Various improvements and replacement of solids handling equipment

Recommendations from the WPCP Optimization Study

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- Complete needed upgrades for:
  - Headworks
  - Disinfection
  - Preliminary design & engineering studies in CIP
- Negotiate a waiver for 85% TSS removal during wet weather
- Increased wet weather flow could be accepted after these short-term upgrades are implemented

WPCP upgrades to be evaluated as Part of System Master Plan (SMP)

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- Larger scale plant capacity upgrades
- Hydraulic capacity of the collection system to deliver flow to the plant
- Possible implementation of CEPT to increase WPCP capacity

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CMOM

CAPACITY, MANAGEMENT, OPERATION & MAINTENANCE

What is CMOM?

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- On January 4, 2001, the EPA signed a Notice of Proposed Rulemaking which clarified the prohibition of sanitary sewer overflows (SSOs) and the NPDES permitting for collection systems.
- EPA definition of CMOM:
  - CAPACITY – Ensuring that collection systems maintain adequate capacity
  - MANAGEMENT – Properly managing all parts of the collection system
  - OPERATION AND MAINTENANCE – Using best management practices for maintaining collection system infrastructure including keeping accurate record keeping and recording

CMOM Program Requirements

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- General EPA standards for CMOM programs require collection system owners to:
  - Properly manage, operate and maintain all components of the collection system
  - Provide adequate capacity to convey base and peak flows
  - Take feasible steps to stop and mitigate the impact of Sanitary Sewer Overflows (SSOs)
  - Provide notification to parties with potential for exposure to an overflow

Definition of a Sanitary Sewer Overflow (SSO)

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- **Sanitary Sewer Overflow** – An untreated discharge of wastewater from a sanitary sewer system when the flow capacity is exceeded during a heavy precipitation event. Sanitary sewer systems carry only domestic and industrial wastewater and not stormwater.

- **Combined Sewer Overflow** – the discharge of wastewater and stormwater from a combined sewer system directly to a receiving waterbody during wet weather

What are the benefits of CMOM?

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- The CMOM Program was originally developed to establish a process and framework that allow owners and operators to:
  - Understand the components that make up the collection system
  - Identify goals and objectives to better manage, operate, and maintain collection systems
  - Investigate capacity constrained areas of the collection system
  - Proactively prevent sanitary sewer overflows (SSOs)
  - Prepare for and respond to emergency events
  - Provide the necessary program structure to allow goals to be met

Summary of CMOM Report

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- A *CMOM Program self-assessment checklist* was prepared in accordance with EPA guidelines as described in Item 1 of the EPA Corrective Action Plan and submitted in August 2010

- The CMOM Checklist included a complete collection system characterization along with an assessment of the capacity of critical elements of the collection system

- Based on the results of the *CMOM Self-Assessment Checklist*, a *CMOM Corrective Action Plan (CAP)* was prepared in order to summarize and correct any identified deficiencies in the *CMOM Self-assessment checklist*.

Summary of CMOM Report

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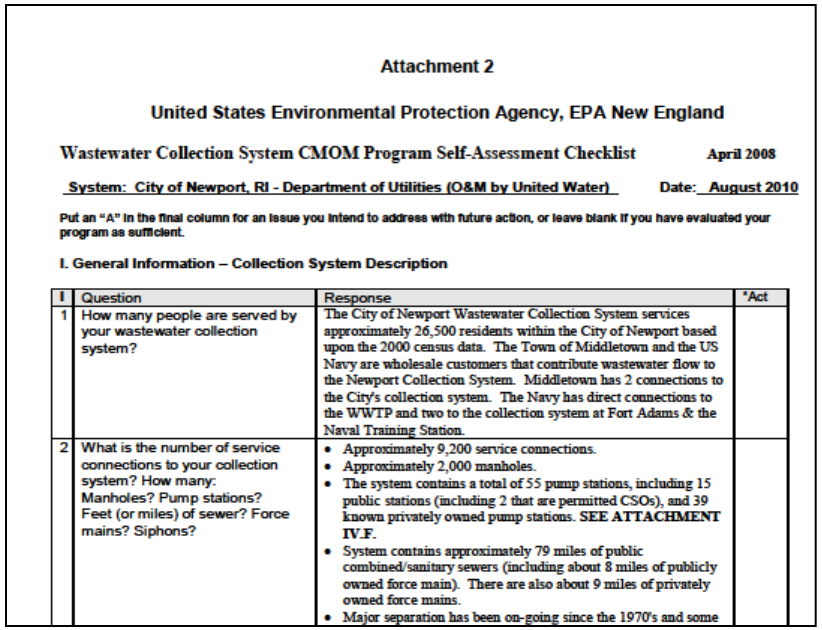
- Wright-Pierce was retained by United Water, the City's wastewater system contract operators, to complete a *CMOM self-assessment checklist* and associated *Corrective Action Plan (CAP)*

1.CMOM Checklist Identified System Deficiencies → 2. Development of Corrective Action Plan



Attachment 2

United States Environmental Protection Agency, EPA New England

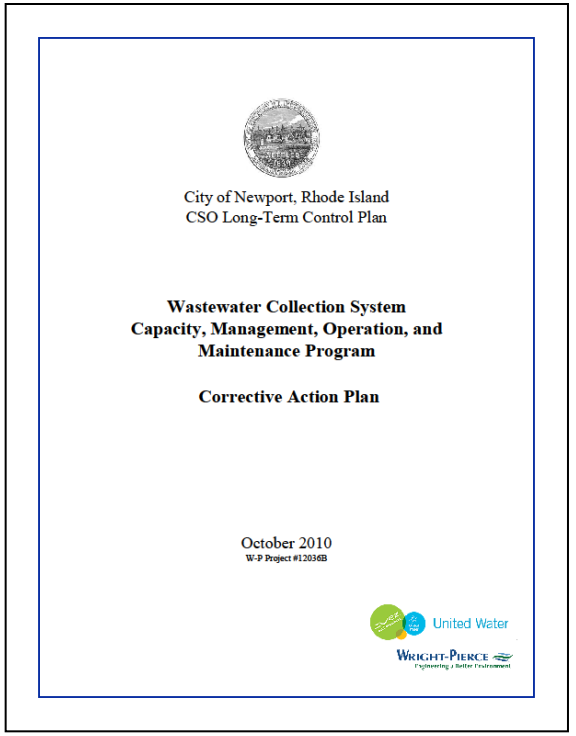
Wastewater Collection System CMOM Program Self-Assessment Checklist April 2008

System: City of Newport, RI - Department of Utilities (O&M by United Water) Date: August 2010

Put an "A" in the final column for an issue you intend to address with future action, or leave blank if you have evaluated your program as sufficient.

I. General Information – Collection System Description

I	Question	Response	*Act
1	How many people are served by your wastewater collection system?	The City of Newport Wastewater Collection System services approximately 26,500 residents within the City of Newport based upon the 2000 census data. The Town of Middletown and the US Navy are wholesale customers that contribute wastewater flow to the Newport Collection System. Middletown has 2 connections to the City's collection system. The Navy has direct connections to the WWTP and two to the collection system at Fort Adams & the Naval Training Station.	
2	What is the number of service connections to your collection system? How many: Manholes? Pump stations? Feet (or miles) of sewer? Force mains? Siphons?	• Approximately 9,200 service connections. • Approximately 2,000 manholes. • The system contains a total of 55 pump stations, including 15 public stations (including 2 that are permitted CSOs), and 39 known privately owned pump stations. **SEE ATTACHMENT IV.F.** • System contains approximately 79 miles of public combined/sanitary sewers (including about 8 miles of publicly owned force main). There are also about 9 miles of privately owned force mains. • Major separation has been on-going since the 1970's and some	



City of Newport, Rhode Island
CSO Long-Term Control Plan

Wastewater Collection System Capacity, Management, Operation, and Maintenance Program

Corrective Action Plan

October 2010
W-P Project #12036B

United Water
Wright-Pierce

CMOM CAP

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- The purpose of the CMOM CAP is to correct any identified deficiencies from the CMOM Self-Assessment Checklist and included:
  - a list of any deficiencies identified by the CMOM Checklist
  - a list of causes and contributing factors that lead to the unauthorized discharges identified in CMOM Checklist
  - a description of the specific short- and long-term actions that the City is taking, or is planning to take
  - a schedule for the implementation of the corrective actions identified in the CMOM CAP Implementation Schedule

CMOM CAP Implementation Schedule

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- A schedule for the implementation of the corrective actions identified in the CMOM CAP was developed:

Figure 1.
Newport, RI CSO Long-Term Control Plan
CMOM CORRECTIVE ACTION PLAN
IMPLEMENTATION SCHEDULE

CMOM SELF ASSESSMENT CORRECTIVE ACTION PLAN (CAP)	FY 2011									FY 2012						
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	J
1.5 COLLECTION SYSTEM GIS MAPPING																
Provide numbering system for sanitary and storm sewer pipelines																
I.6 - COLLECTION SYSTEM PLAN INVENTORY																
Research & assess plans / as-builts / maps / sewer cards																
Inventory, scan plans & integrate digital scanned images into GIS																
III.E.2 - SSO STANDARD FORM																
Prepare customized RIDEM standard SSO notification form & initiate use																

Status of CAP Progress

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- The following items were identified as deficiency action items in the CMOM CAP and have been corrected or are in the process of being addressed and/or completed:

Action Item	Status
I.5 - Numbering System/Index for sanitary and storm pipelines in GIS system	On-going
I.6 - Inventory of collection system as-built plans and integrate into GIS system	On-going
III.E.2 - Incorporate the use of RIDEM state standard form for the reporting & notification of an SSO event	Completed
III.F.1U - Update Sewer Use Ordinance (if necessary)	Action Item w/ undefined scope/schedule at this time
III.F.6 - Integrate Flow Meter Data from Naval Station Newport into the City's SCADA system	On-going
III.F.7 - Continue efforts to collect private sewer system operational data	On-going
IV.A.5 – Re-prioritize collection system improvements based upon on-going GIS mapping updates	On-going

Status of CAP Progress (cont'd)

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Action Item	Status
IV.B.3 – Develop an air-relief valve inspection and standard operating procedure for force mains	On-going
IV.D.1 – Develop an Emergency Response Plan	On-going
IV.E.4 – Continue collection system hydraulic modeling	On-going
V.A.7 – Formalize a Root Prevention Program	On-going
V.B.1 – Identify manholes in easements, right-of-ways, or paved over	On-going
V.B.2 – Raise manhole frames & covers located in easements, right-of-ways, or paved over	Action item with undefined scope a schedule at this time (contingent on findings/results of V.B.1 above)
V.C.3 – Formalize a supply inventory tracking system	On-going
VI.B.1 – Refine documentation procedures for manhole assessment and inspection	On-going

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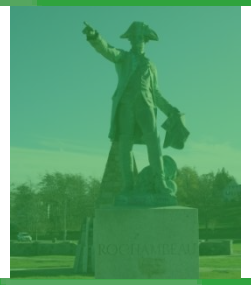


FUTURE MEETINGS, WRAP-UP & QUESTIONS

Future Meetings

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- Next Meeting
  - September 8, 2011
  - 3:00 PM
  - Council Chambers
  - Agenda Topics:
    - Frequencies and volumes of overflows
      - Historical data
      - Trends
    - Harbor Water Quality
      - Historical data
      - Water Quality Standards
      - Examples of how other communities have dealt with water quality drivers & different designated uses

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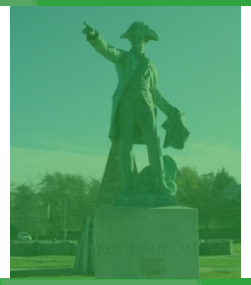


QUESTIONS?