Village of Ridgefield Park
Supplemental CSO Team
Meeting Number 1 – Project Introduction

Commissioner's Conference Room
Village of Ridgefield Park Municipal Building
May 15, 2017, 9 am

Group Meeting Minutes

1. Introductions
The meeting began at 9:10 with introductions of all members present.

2. Presentation
Overview of CSOs and Permit Requirements
John Dening, Mott MacDonald
See power point slides

3. NJDEP presentation
Presentation covered the three questions:
What is a CSO?
What does it look like?
What is being done?

Joe Minnick, NJDEP-CSO
See power point slides

4. Discussion

a. The group discussed what amount of rainfall typically causes a discharge event. John Rolak explained that 50 percent of rainfall events do not cause an overflow. One goal will be to reduce the number of discharges in the region to less than 4 per year. Toward that goal we will be looking at the possibility of capturing rainfall events for lower intensity storms of .5 – 1.5 inches.

   The BCUA is working on developing a model of its whole system to determine how many overflows are happening regionally.

b. Joe Minnick pointed out that the NJDEP will not expect controls to capture a super storm such as Sandy.

c. John Rolak discussed models that had been done in the past that compared water quality with CSO and water quality in separated systems. The results of the modeling indicated that water quality is actually better with CSOs. The only exception is the pathogen levels, which were higher with CSOs. Separating the

sewers creates more untreated storm water going to the river along with pollutants such as runoff, animal waste and leakage from sewers. One option might be to treat the overflow for pathogens.

d. Based on earlier studies, storing the flow during a storm would cost about $200 million, which would not be an economical solution.

e. Rain gardens were discussed as an option for preventing runoff. Pennsylvania is an example of where this has been used.

f. The role of trees to prevent storm water runoff was discussed.

g. The idea was discussed of intervening when homeowners are paving driveways or businesses are installing lots. Pervious pavement and storage tanks could be suggested.

h. The question was raised about if water quality in the river will definitely improve if money is spent. John Rolak explained that further study would help us better understand the sources of pollution.

i. Joe Minnick added that if CSOs are separated treatment would be needed in the future to treat the storm water.

j. John Rolak noted that Ridgefield Park has had dry water overflows in the past due to people connecting sewer lines directly to the storm water system

5. Next Steps
The group was asked to provide two volunteers for the BCUA Supplemental CSO Team, which will meet in June. Mark Olson volunteered.

6. Next Meeting
Donna Gregory will be in contact to determine a mutually agreeable date.

7. Adjournment
Meeting concluded at 10:50 am.

Minutes submitted by: Donna Gregory

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Meeting Number 1 – Project Introduction
Commissioner's Conference Room
Village of Ridgefield Park Municipal Building
May 15, 2017, 9:00 AM

Name	Organization	Email	Phone Number
John Rolak	Mott MacDonald	john.rolak@mottmac.com	973-912-2521
John Dening	Mott MacDonald	John.dening@mottmac.com	973-912-2464
Donna Gregory	Mott MacDonald	donna.gregory@mottmac.com	
James Donohue	Principal, Ridgefield Park High School	jdonohue@rpps.net	201-741-9567
Flo Muller	Ridgefield Park Shade Tree Commission	flomart@nj.rr.com	201-814-9019
Mark Olson	Chairman, Green Team	mark-olson@verizon.net	201-440-5989
Stephen Quinn	Ridgefield Park Environmental Commission	stephencquinn@aol.com	201-440-5652
Linda Quinn	Ridgefield Park Environmental Commission	linda.quinn125@gmail.com	201-440-5652
Edward Monroe	Ridgefield Pk DPW	cd81563@gmail.com	201-440-4880
TARA O'GRADY	VILLAGE CLERK RP	Mridgefieldpark D nj.rr.com	201.641.4950 x101
Kelly Perez	NJDEP	Kelly.perez@dep.nj.gov	609 292 4860
Joe Mannick	NJDEP-CSO	joe.mannick@dep.nj.gov	609-292-4860

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MOTT MACDONALD

Supplemental CSO Team

Meeting Number 1 – Project Introduction

Village of Ridgefield Park

May 15, 2017

Safety moment

Think about and share a safety moment:

- Please be aware of your surroundings
- What to do in case of an emergency

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Supplemental CSO Team

Meeting No. 1 Agenda

Important points to cover:

- What is a Combined Sewer System?
- What is a Combined Sewer Overflow?
- Why is the Village Undertaking this Project?
- What are the Requirements?
- What are the Deadlines?
- What is my role?

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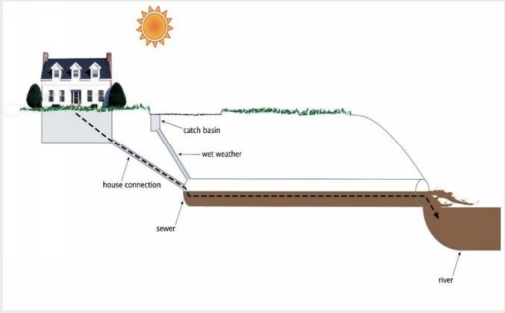
What is a Combined Sewer System?

Oldest Sewers in Country

In the mid-1800s conduits were constructed in large cities to transport both sewage and drainage to the river.

Dilution is the solution?



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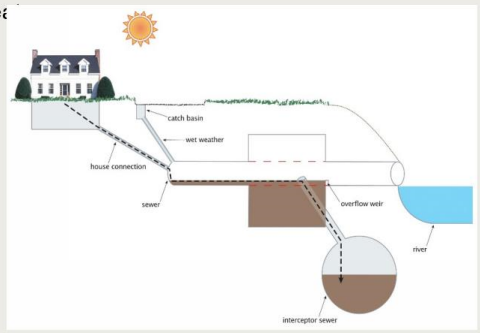
What is a Combined Sewer System?

Oldest Sewers in Country

By the turn of the century our rivers had turned to open sewers and sewers are constructed to collect and trea

Dilution is not the solution!



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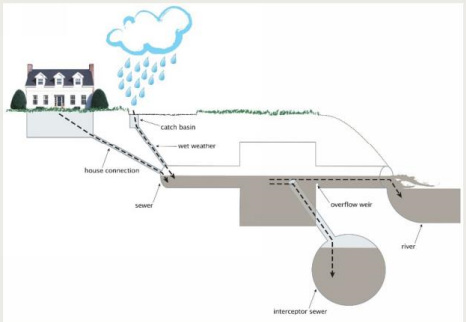
What is a Combined Sewer Overflow?

Oldest Sewers in Country

Dilution is not the solution, but hydraulic relief is needed during wet weather periods to limit the size and cost of Interceptor Sewers and Sewage Treatment Plants



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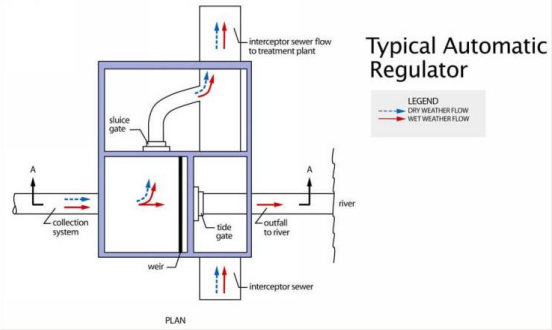
What is a Combined Sewer Overflow?

Oldest Sewers in Country

Wet Weather Flows to the Sewage Treatment Plant are Controlled by CSO Control Facilities



What is a Combined Sewer Overflow?

Oldest Sewers in Country

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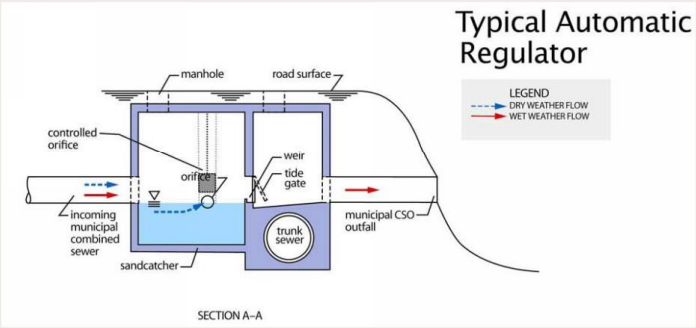

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Why is the Village Undertaking this Project?

Background

- 1948 Federal Water Pollution Control Act (FWPCA)
- 1972 FWPCA amended and renamed Clean Water Act
- 1989 EPA National CSO Control Strategy
- 1994 EPA CSO Control Policy
- 1995 NJ Master General Permit
- 2004 NJ Master General Permit Revoked and Reissued

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Why is the Village Undertaking this Project?

New Jersey Pollutant Discharge Elimination System (NJPDES)

NJPDES Individual Permit Issued March 12, 2015 requires Permittees to:

- Install New Outfall Signs
- Update system data compiled in 2006
- Revise Rules/Ordinances on Sewer Use
- Update Operation and Maintenance Manual
- Create and Maintain a CSO Hotline or Website
- Update Standard Operational Procedures (SOPs)
- Develop an Asset Management Plan

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Work Completed to Date

Summary of Reports or Requirements that are to be Completed and Retained On-Site (i.e. not submitted to the Department)		
Permit Condition	**Abbreviated Description of Requirement**	**59 Month LTCP Due Date**
Part IV.D.2.c	Install outfall signs	January 1, 2016
Part IV.F.1.f.	Update the characterization of the system's infrastructure (list of sewer system components and SIUs) using a spreadsheet	January 1, 2016
Part IV.F.1.h	Create anticipated schedule to revise Rules/Ordinances/Sewer Use Agreements to reduce I/I	January 1, 2016
Part IV.F.1.i and Part IV.D.4.b.iv	Insert SOPs in O&M Manual	January 1, 2016
Part IV.F.1.g	Insert characterization on a GIS Map	July 1, 2016
Part IV.F.8.c.iii	Create and maintain Telephone Hot Line or Website	July 1, 2016
Part IV.D.4.b.iv	Update O&M Manual with SOPs, Asset Management Plan and Emergency Plan	July 1, 2016 and Annually thereafter
Part IV.F.1.k	Insert and update an Asset Management Plan in O&M Manual	July 1, 2016 and Annually thereafter

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Why is the Village Undertaking this Project?

New Jersey Pollutant Discharge Elimination System (NJPDES)

NJPDES Individual Permit Issued March 12, 2015 also required:

- Global Positioning System (GPS) Data
- Discharge Monitoring Reports (DMRs)
- Baseline Compliance Monitoring Program
- System Characterization Study
- Public Participation Process Report
- Compliance Monitoring Program Report
- Consideration of Sensitive Areas
- Develop and Evaluation of Alternatives
- Submission of Long Term Control Plan (LTCP)
- Submission and Implementation of Alternatives Report

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Work Completed to Date

Summary of Reports Required to be Submitted to the Department		
Permit Condition	**Abbreviated Description of Requirement**	**59 Month LTCP Due Date**
Part III	Discharge Monitoring Reports (due 25th day of the month following the reporting period) - Solids/Floatables and Precipitation	Monthly from July 1, 2015
Part IV.D.4.a	Submit Progress Reports (due 25th day of the month following the quarter)	Quarterly from July 1, 2015
Part III	Discharge Monitoring Report (due 25th day of the month following the reporting period) – Duration of Discharge	Monthly from January 1, 2016
Part IV.D.2.a	Submit GPS latitude and longitude for pump stations, CSO regulators and CSO outfalls	January 1, 2016
Part IV.D.3.b.i	Submit System Characterization Work Plan	January 1, 2016
Part IV.D.3.c	Submit Baseline Compliance Monitoring Program Work Plan	January 1, 2016
Part IV.D.2.b	Submit a map of combined and separate sewer areas	July 1, 2016

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Work Still to be Completed

CSO Submittal Summary

Summary of Reports Required to be Submitted to the Department		
Permit Condition	**Abbreviated Description of Requirement**	**59 Month LTCP Due Date**
Part IV.D.3.b.ii	Submit System Characterization Report	July 1, 2018
Part IV.D.3.b.iii	Submit Public Participation Process Report	July 1, 2018
Part IV.D.3.d	Submit Compliance Monitoring Program Report	July 1, 2018
Part IV.D.3.b.iv	Submit Consideration of Sensitive Areas Plan	July 1, 2018
Part IV.D.3.b.v	Submit Development and Evaluation of Alternatives Report	July 1, 2019
Part IV.D.3.b.vi	Submit Selection and Implementation of Alternatives Report in the Final LTCP	June 1, 2020

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Sewer System Characterization Report

Description and Status

Initial System Characterization Completed 2003 - 2006

- Sewer System Mapping
- Dry and Wet Weather Monitoring at Regulators and Outfalls.
- Review of Land Use and Population Data
- Development of Land Side Computer Model
- Computer Output used to Characterize CSO Discharge

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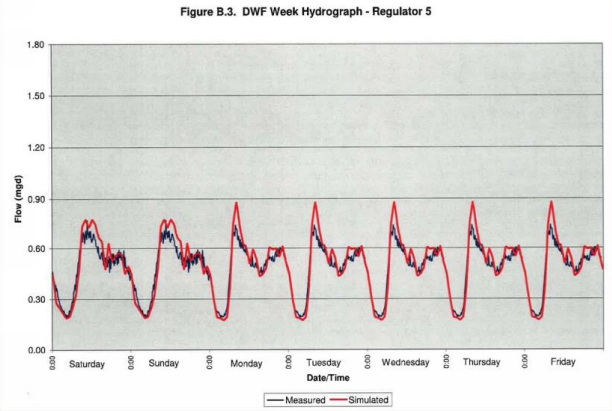
Sewer System Characterization Report

Example of 2006 Computer Model Dry Weather Predictions



Models are Good in Some Cases.

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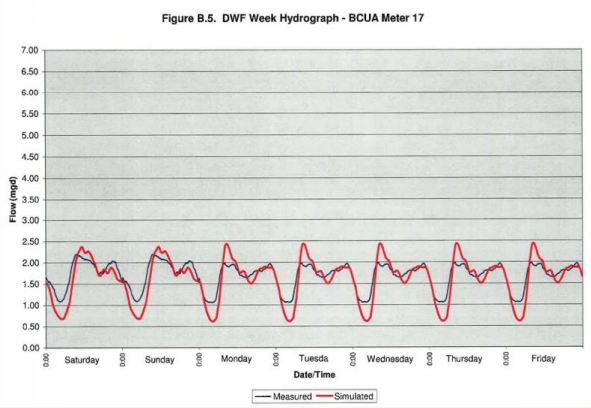
Sewer System Characterization

Example of 2006 Computer Model Dry Weather Predictions



Models are Not as Good in Other Cases.

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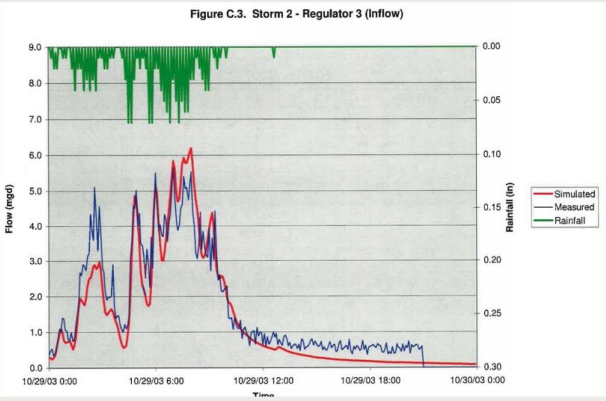
Sewer System Characterization Report

Example of 2006 Computer Model Wet Weather Predictions



Wet weather simulation is acceptable, but has some issues.

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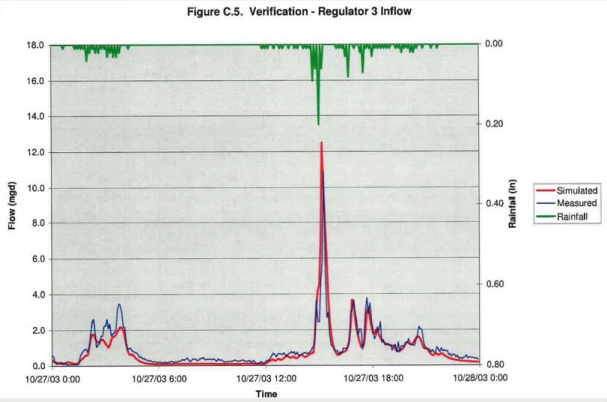
Sewer System Characterization Report

Example of 2006 Computer Model Wet Weather Predictions



Wet weather simulation is acceptable, but has some issues.

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Sewer System Characterization Report to Be Updated

Description and Status

- Land Use Has Not Changed.
- Population Has Not Changed.
- Sewer System Has Not Changed.
- Global Positioning Stationing (GPS) 2016
- New GIS Mapping Using GPS Data 2017
- InfoWorks Computer Model Updated
- Additional Flow Data Being Collected
- Model to be Calibrated and Verified

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Public Participation Process Report
Description

NJPDES Permit Requires Supplemental CSO Team

- Local and Regional Teams
  - Local Team to Deal with Local Issues
  - Regional Team to Deal with Overall Regional LTCP
- Seek to Actively Involve Affected Public
  - Rate Payers
  - Industrial Users
  - Environmental Groups
  - Integration with Municipal Agencies

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Public Participation Process Report
Description

Supplemental CSO Team

- Quarterly Meetings Anticipated for
  - Permit Process and Requirements
  - System Characterization and Results
  - Status and Schedule for Each Process
  - Sensitive Area Analysis
  - Alternative Control Considerations
  - LTCP Alternatives and Costs
  - Implementation Schedule

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Public Participation Process Report
Description

Supplemental CSO Team

- Is Our Link to the General Public
- We Want You to Talk to Others
- Will Provide Input on Planning Process
- Will Provide Input for Consideration on
  - Evaluation of Sensitive Areas
  - Evaluation of CSO Control Alternatives
  - Selection of CSO Control Alternatives

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Public Participation Process Report
Description

Supplemental CSO Team has an

Advisory Role!

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Compliance Monitoring Program Plan (CMP) and Report
Description

Each permittee is required to complete a CMP to Evaluate the Effectiveness of CSO Controls including:

- Determine Discharge Frequency for Each CSO Outfall
- Duration of Discharge for Each CSO Outfall
- Quality of Flow from each CSO Outfall
- Monitor Rainfall in the Vicinity of Each Outfall
- Establish a Baseline Receiving Water Quality

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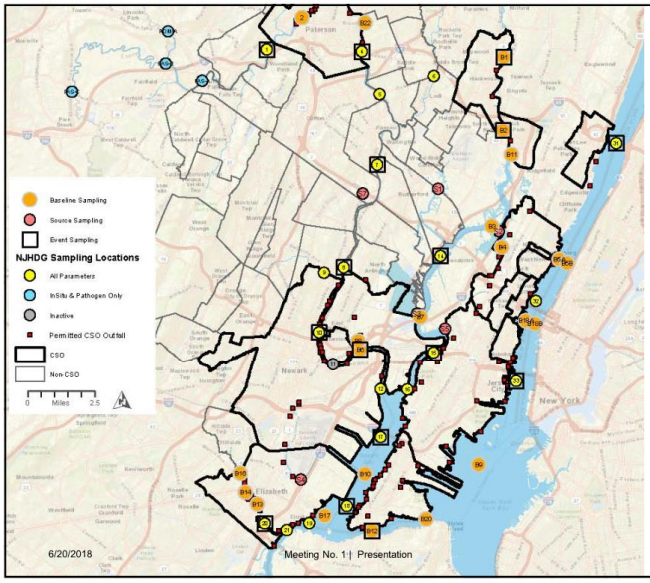

Compliance Monitoring Plan

Ridgefield Park is not alone!

There are nearly 200 CSO Outfalls in the Region not counting New York City!

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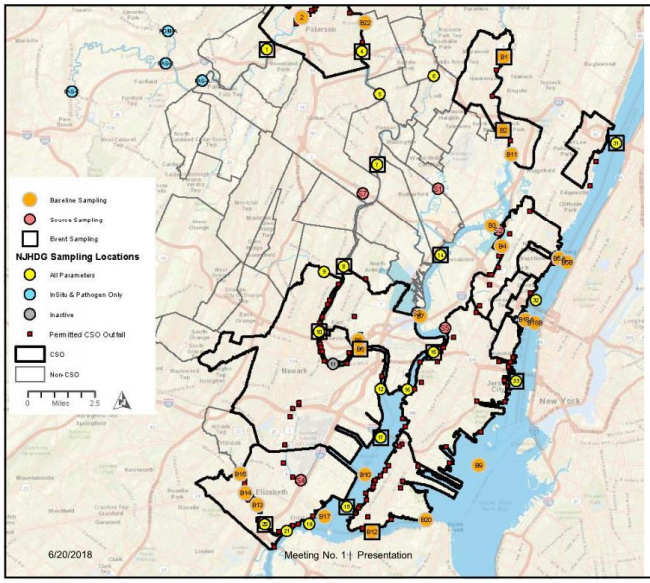

Compliance Monitoring Plan

Ridgefield Park has joined with the NJ CSO Group to Plan and Undertake the Compliance Monitoring Plan for the interconnected waterways associated with its CSO Outfalls.

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Compliance Monitoring Program Plan (CMP) and Report

Description

The CMP will be used in the Future to Establish:

- Effectiveness of CSO Controls
- Compliance with Water Quality Standards
- Protection of Designated Uses

But Keep in Mind CSO Discharges are Not The Only Source of Pollutants in the Region!

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Compliance Monitoring Program Plan (CMP) and Report
Description

Accordingly, the CMP is being tied to a Receiving Water Model to Better Evaluate Water Quality in the Region and to Answer:

- Existing Water Quality Compliance
- Impacts of CSO Discharges
- Impacts of Municipal Storm Sewer Systems (MS4)
- Impacts from New York City Combined Sewers

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Compliance Monitoring Program Plan (CMP) and Report
Description

The CMP :

- Work Plans were submitted and approved by NJDEP.
- Dry Weather Monitoring has been Completed.
- Wet Weather Monitoring will be completed shortly.
- Additional information on findings will be forthcoming at a future meeting.

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Development and Evaluation of Alternatives

Description

Deadline for Submission is July 1, 2019

- Work will be Presented to CSO Supplemental Team in Future Meetings
  - What are alternative controls?
  - Space requirements for each
  - What are the costs associated with each?
    - Construction Costs
    - Operation and Maintenance Costs
  - Anticipated Benefits

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Selection and Implementation of Alternatives Report In the Final LTCP

Description

Deadline for Submission is June 1, 2020

- Work will be Presented to CSO Supplemental Team in Future Meetings
  - What are alternative controls recommended?
  - What are the costs associated with the LTCP?
    - Construction Costs
    - Operation and Maintenance Costs
  - Implementation Schedule.
  - Anticipated Benefits

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Questions?
6/20/2018
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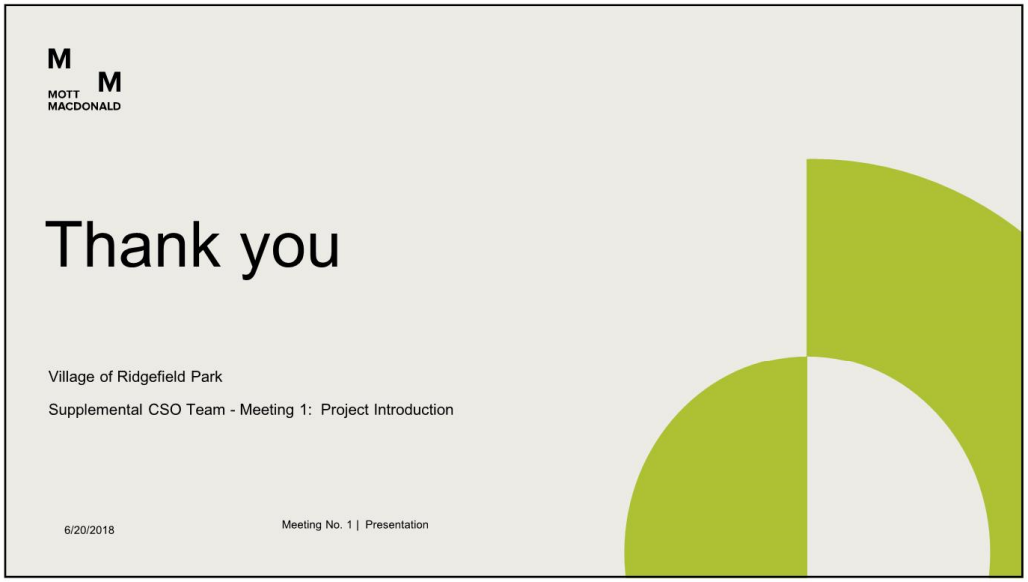
MOTT MACDONALD
Thank you
Village of Ridgefield Park
Supplemental CSO Team - Meeting 1: Project Introduction
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Meeting No. 1 | Presentation

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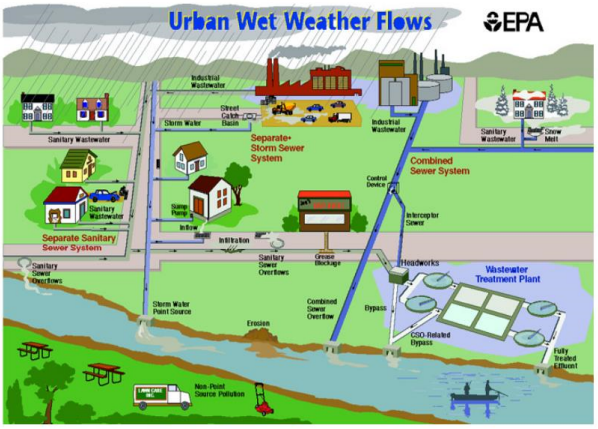
Combined Sewer Overflow Program Overview

Division of Water Quality

Sewer System Types



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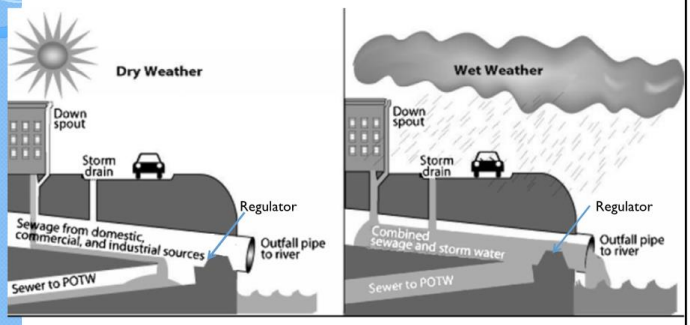
Combined Sewer System Operation



Combined Sewer Systems

- Combined Sewer Systems are remnants of our country's early infrastructure. They are outdated and in need of repair.

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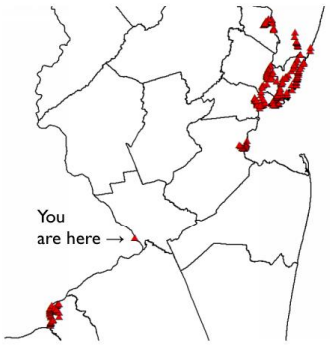
CSOs in the US

-772 communities
-9350 outfalls
-850 billion gallons discharged per year

CSOs in New Jersey



- 21 communities
- 210 permitted outfalls
- 23 billion gallons discharged per year
- 9 POTWs
  - Northeast: 181 outfalls, 7 communities and 7 POTWs
  - Camden County: 30 outfalls, 3 communities and 1 POTW
  - Trenton: 1 outfall, 1 community and 1 POTW

3

CSO Permits - Two Components

- **Nine Minimum Controls (NMC)**
  - Simple, low cost measures
  - Mostly carried forward but with some enhancements
- **Long Term Control Plan (LTCP)**
  - Goal is to reduce or eliminate CSO discharges to comply with the CWA
  - Dictates a path to achieve that goal
  - Substantially new requirements
  - Due June 2020

Nine Minimum Controls (NMC)

- Proper operation and maintenance
- Maximize use of collection system for storage
- Review of pretreatment requirements
- Maximize flow to POTW for treatment
- Elimination of discharges during dry weather (SSO)
- **Control of solids/floatables**
- Pollution prevention
- **Public notification (signs & website)**
- Monitoring of impacts and efficacy of controls

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CSO - Outfall

Nets Can Be Exposed

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S/F Nets Under Stress

Nets Can Be Exposed

6

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Nets Can Be Exposed

S/F Nets Can Be Hidden

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S/F Nets Can Be Hidden

Public Notification – Two Signs

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CSO Websites

11/29/16; 4:57 PM
http://www.nhudsonsa.com/Public/waterbody.html

Long Term Control Plan (LTCP)

- System characterization, monitoring and modeling
- **Public participation**
- **Consideration of sensitive areas**
- Evaluation of CSO control alternatives
- Cost/performance considerations
- Operational plan
- Maximization of treatment at the POTW
- Implementation schedule
- Post-construction compliance monitoring

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Public Participation

- Permittees are required to seek public input throughout the LTCP process via the Supplemental CSO Team:
  - Where is flooding?
  - What abatement strategies should be considered?
  - What should be the LTCP schedule?

- Permittees are not *required* to follow public input.

Consideration of Sensitive Areas

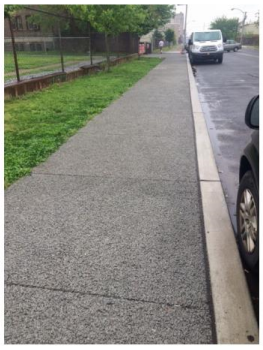
- Sensitive areas can include: ONR Waters, T&E species, Drinking Water Intakes and Primary Recreation (Bathing beaches)

- Sensitive Areas are given the highest priority

6/20/2018

Questions?

Joe Mannick,
CSO Program
Division of Water Quality
joe.mannick@dep.nj.gov
(609) 292-4860



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