

## **Village of Ridgefield Park Supplemental CSO Team**

### **Meeting Number 8**

Commissioner's Conference Room

Village of Ridgefield Park Municipal Building

May 28, 2019, 10 am

#### **Group Meeting Minutes**

##### **1. Introduction**

- a. Meeting began at 10 am with introductions. Several members of the general public were in attendance in addition to the Supplemental CSO Team.
- b. John Dening opened the meeting with a safety discussion about proper ladder usage.
- c. John Dening welcomed new attendees and presented a recap of the topics discussed at all meeting held to date and opened for questions. John explained the purpose of the meeting and the role of the Supplemental CSO team. No questions were asked at that time.

##### **2. Presentation by John Dening about the Development and Evaluation of Alternative Controls (see power points).**

##### **3. Discussion and Questions**

- a. The following outlines the questions that were asked and the discussions that followed:  
Question: If there is no extra capacity at BCUA, will Ridgefield Park be required to pay for the cost of expansion?

Answer: Yes, if additional capacity is needed at BCUA Ridgefield Park and any other entities that need the capacity will cover the cost of the expansion.

- b. Question: If we stop sending storm water to BCUA will our bill be reduced?

Answer: Ridgefield Park will pay for the amount of flow into the plant measured at the BCUA meter. Ultimately, for any solution that is proposed the costs will be compared and evaluated.

- c. Question: How much of Ridgefield Park is currently separated?

Answer: Approximately half of Ridgefield Parks wastewater system is separated.

- d. Question: Should the State share in some of the costs due to the fact that much of the storm water resulted from the construction of Route 80 and the reconstruction of North Avenue?

Answer: This would be a legal matter for the Village to investigate.

- e. Question: Would we need to run a new sewer line along Teaneck Road?

Answer: At this time, we are looking at more general broad solutions. Specific streets are not being considered at this time.

- f. Question: What percentage of the flow could be reduced by green infrastructure such as bioswales, pervious pavement and rain gardens?  
Answer: Many factors such as soil characteristics/infiltration capacity will have to be studied to determine the performance of any green initiatives.
  - g. Question: If we separate the sewer system will that solve the problem?  
Answer: Separation will keep storm water from entering the BCUA treatment plant, Nevertheless, storm water may still need some level of treatment before being discharged.
  - h. Question: What if we implement CSO controls and the water quality does not improve due to the tidal nature of the waterways?  
Answer: The overall water quality may not improve, but the permit requires a reduction in the overflows regardless. The DEP is looking for permittees to do whatever can be done feasibly. The ultimate goal would be for all waterways to be fishable and swimmable, but the DEP recognizes that the solution must be affordable.
  - i. Question: Are there any other movements underway to address other causes of river pollution?  
Answer: Yes, the riverkeeper and the baykeeper are consistently looking for ways to improve water quality. In addition, the NJDEP is targeting stormwater from separate sewer systems through NJPDES Permits.
  - j. Question: If a tank is put in the Village could businesses continue to operate on the property?  
Answer: Most likely a business could operate or a park could be built over the storage tank after it is completed. The tank would be below ground except for a pump station and a few manholes. Depends on the type of business and what they would want to put on top of the tank.
  - k. Question: Could a tank be located on the property under the Route 80 bridge?  
Answer: That is a possibility that can be explored.
  - l. Question: Could a tunnel follow the railroad right of way?  
Answer: It is unlikely that that would be feasible due to railroad restrictions and rules.
  - m. Lastly, a general discussion about the need for a boat ramp concluded the discussion.
  - n. The next meeting of the Supplemental CSO Team will be held in September.
4. Meeting concluded at noon.

Minutes submitted by Donna Gregory

Village of Ridgefield Park  
Supplemental CSO Team  
Meeting Number 8 – Characterization Report  
Commissioner's Conference Room  
Village of Ridgefield Park Municipal Building  
May 28, 2019; 10:00 AM

Initials	Name	Organization	Email	Phone Number
	John Rolak	Mott MacDonald	john.rolak@mottmac.com	973-912-2521
LD	John Dening	Mott MacDonald	John.dening@mottmac.com	973-912-2464
DMG	Donna Gregory	Mott MacDonald	donna.gregory@mottmac.com	
	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
	John Ponticorvo	Wanda Canoe Club	jponticorvo@aol.com	201-803-3643
	John Anlian	Bd of Commissee	Johnanlian@yahoo.com	201-943-1110
	GERARD GARDALOW			201-440-4694
	Leslie Olson	R.P. Green Team R.P. Environ. Cmsa	leslie-olson@verizon.net	201-440-5989
SS	Steve Sebege	NJDEP	Stephen.sebege@dep.nj.gov	609 292-4860
RP	Rachael Pepe	NJDEP	Rachael.Pepe@dep.nj.gov	609-292-9977
NK	Nancy Kempel	NJDEP	Nancy.kempel@dep.nj.gov	609 633-7021

Village of Ridgfield Park  
Supplemental CSO Team  
Meeting Number 8 – Characterization Report  
Commissioner’s Conference Room  
Village of Ridgfield Park Municipal Building  
May 28,2019; 10:00 AM

[illegible]



# Development and Evaluation of Alternative Controls

Village of Ridgefield Park  
Supplemental CSO Team

Meeting #8

May 28, 2019



## Safety Topic

Ladders

1

### Pick the Right Ladder for the Job

Type  
Length  
Material

2

### Inspect the Ladder

Corrosion  
Rot  
Clean

3

### Set up the Ladder

4:1 Rule  
Level Ground  
3' Above Roof

4

### Use the Ladder

Keep centered  
3 Points of Contact  
Proper footwear  
Use a toolbelt



## Ridgefield Park Supplemental CSO Team

Meeting No. 8 Agenda

Refresher – In meeting #7 we covered:

- Submissions Status
- Comments from NJDEP on Characterization and Public Participation Reports
- Preliminary Evaluation of Alternatives
- NJ CSO Group Coordination
- Draft Report Outline
- Future Public Participation
- Upcoming Schedule

## Ridgefield Park Supplemental CSO Team

Meeting No. 8 Agenda

- Submissions Status
- Public Participation Status
- Development and Evaluation of Alternatives
  - Coordination with BCUA
  - Future Baseline
  - Preliminary Alternatives
- Upcoming Schedule

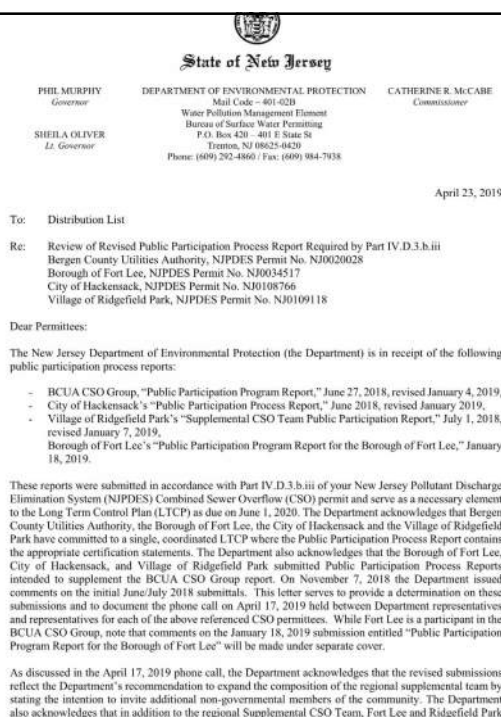
## Ridgefield Park Supplemental CSO Team

DEP review status – July 1, 2018 submittals

- **Consideration of Sensitive Areas Report:** NJ CSO Group report; DEP comment letter dated 9/20/2018; revised report submitted to DEP on 10/19/2018. DEP comment letter dated 3/01/19. Approved 4/8/19
- **Public Participation Process Report:** comment letter dated 11/08/2018; revised report submitted 1/07/19. Received NJDEP Comments 4/23/19. Responded due 5/22/19.
- **Baseline Compliance Monitoring Program Report:** NJ CSO Group report; DEP comment letter dated 9/7/2018; revised report submitted to DEP on 10/5/2018. DEP **Approval** letter dated 3/01/19.
- **System Characterization Reports:** comment letter dated 12/17/2018, Revised Report submitted 2/11/19. NJDEP **Approval** letter dated 03/11/19

## Public Participation Comment Letter

To all members of the BCUA CSO Group



## Public Participation Comment Letter

Response Due May 23, 2019

Delivered May 22

Looking for Planned and Future Activities

Actively Engage Public

Through LTCP Submission June 1, 2020

have formed local Supplemental CSO Teams. However, gaps exist in the permittee planned efforts to engage the affected public beyond those that sit on the Supplemental CSO Teams. As required by Part IV.G.2.b, of the permit, "implementation shall actively involve the affected public throughout each of the 3 Steps of the LTCP process." As such, active involvement, including feedback opportunities, must be provided by the permittee to the affected public beyond those who sit on the Supplemental CSO Team. Additionally, as this next year or so will be the time frame during which the permittee will be developing and selecting alternatives, this will be the most advantageous time to solicit and address input from the affected public on the alternatives.

During the call we discussed several ways to demonstrate active involvement with the affected public. Below is a bulleted list of some of the ideas the Department suggested on the call:

- Update the Homeowner's guide, and other pamphlets/flyers to add a brief mention of the CSO LTCP process underway and how to get more information;
- Partner with local community groups to incorporate CSO outreach into their efforts that they are already undertaking;
- Present at a local community group's existing meeting, such as but not limited to, homeowner's associations, boating/kayaking clubs, service-based groups, business associations (ex. chamber of commerce, downtown associations), neighborhood associations, Parent Teacher Organizations, and religious or cultural associations;
- Present at the environmental commission, planning board, and town council/committee meetings.

When hosting your own public meeting, please consider:

- Locations that are most convenient and familiar to residents, such as a local library, community building or school;
- Inviting the local groups that you have offered a presentation to and ask them to inform their members of the meeting;
- Advertising the meeting through multiple avenues, include social media, flyers in high visible locations, municipal email distribution lists, municipal meeting calendars and advertisement in local newspaper; and
- Partnering with a local group for the meeting, which will likely draw a larger attendance.

The above is not a comprehensive list of what could be done to demonstrate active involvement and the Department encourages you to think about which approaches are most efficient and effective for your individual communities and the specific segments of the affected public you are seeking to engage. Additionally, as offered during the conference call, the Department is available to meet with you to further discuss specific approaches for public participation, including, sharing best practices from other public participation efforts, feedback on upcoming meeting agenda, format and presentations, suggesting methods to advertise feedback opportunities and upcoming meetings.

The Department requests that the previous submissions be supplemented with additional information **within 30 days of the date of this letter** to detail planned and/or future efforts to actively engage the affected public leading up to the submission of the Development and Evaluation of Alternatives Report and the Selection and Implementation of Alternatives Report. This supplement may be in the form of a letter or as revisions to the plan itself.

## Public Participation Comment Letter

Since last submission:

- Jan SCSO Team Meeting
- Posted SCSO Team Meeting Minutes
- Added John Porticorvo – Wanda Canoe Club
- Presented to Town Caucus April 4<sup>th</sup>
- BCUA SCSO Team Meetings
- Ridgefield Park Earth Day

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## Public Participation Comment Letter

### Proposed:

- Continue SCSO Team Meetings
- Seek additional SCSO Team Members
- Present to Council
- Newsletter Article
- Public and Community Group Meetings
- Earth Day 2020

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## Ridgefield Park Supplemental CSO Team

### Meeting Minutes

The screenshot shows the website for The Village of Ridgefield Park. The header includes the village name, a search bar, and navigation links: About Us, Departments, Boards & Committees, and Public Organizations. A 'HELP CENTER' button is also present. The main content area features a 'Citizen Action Center' sidebar on the left with various links. The 'CSO General Info & Meeting Minutes' link is highlighted with a red box. Other links in the sidebar include: Subscribe to News & Alerts, Forms & Applications, Online Bill Pay, Ordinances, Recreation, CSO Notification, Minutes & Agendas, Service Requests, Volunteer, and Contact Us. The main content area displays a map of the village, a 'Village Events' calendar for May, and a 'Local News' section with articles about Arbor Day & Earth Day 2019, Mosquito Control Larviciding Notice, and Free Child Lead Screening. The date '28 May 2019' is visible in the bottom right corner.

## Ridgefield Park Supplemental CSO Team

### Meeting Minutes

The screenshot shows the Ridgefield Park website. The header includes the village name, a search bar, and navigation links. The main content area features a title 'Ridgefield Park: The Future of our Waterways is in Your Hands' and a link to 'Meeting Minutes' which is highlighted with a red rectangle. Below the link is a diagram illustrating the Combined Sewer System (CSS) operation during dry weather and heavy rainfall events.

**Dry Weather**

Down spout  
Storm drain  
Storage from domestic, commercial, and industrial sources  
Outfall pipe to river  
To sewage treatment plant

**Heavy Rainfall Event**

Down spout  
Storm drain  
Combined sewage and stormwater  
Outfall pipe to river  
To sewage treatment plant

Combined Sewer Systems are typically located in older urban areas and were constructed to provide for the transportation of sanitary sewage, industrial

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## Ridgefield Park Supplemental CSO Team

### Meeting Minutes

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Environmental Protection Agency  
Green Infrastructure  
<https://www.epa.gov/green-infrastructure>

Ridgefield Park's Green Team also provides education on things that you can do to reduce your impact on the waterways.

The Green Team  
<https://www.ridgefieldpark.org/green-team>

For More Information See these Important Links

- PVSC CSO Notification System  
<https://pvcso.hdrgateway.com>
- Bergen County Utilities Authority  
History of CSOs and What is Being Done to Solve the Problem  
<https://www.bcua.org>
- New Jersey Department of Environmental Protection Division of Water Quality  
Combined Sewer Overflows  
<https://www.state.nj.us/dep/dier/cso.htm>
- Environmental Protection Agency  
National Enforcement Initiative: Keeping Raw Sewage and Contaminated Stormwater Out of Our Nation's Waters  
<https://www.epa.gov/enforcement/national-compliance-initiative-keeping-raw-sewage-and-contaminated-stormwater-out-of>
- Clean Water New Jersey  
<https://www.cleanwater.org>

**Meeting Minutes**

- CSO Meeting 1 - May 25, 2017
- CSO Meeting 2 - September 11, 2017
- CSO Meeting 3 - December 11, 2017
- CSO Meeting 4 - March 12, 2018
- CSO Meeting 5 - June 11, 2018
- CSO Meeting 6 - October 1, 2018
- CSO Meeting 7 - January 23, 2019

Village of Ridgefield Park  
234 Main St., Ridgefield Park, NJ 07660  
Phone: 201-641-4950 Fax: 201-641-1248

Website Disclaimer  
Site is not a part of the official website of the Village of Ridgefield Park

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## Ridgefield Park Supplemental CSO Team

### Future Public Participation Activities

- Looking for Supplemental CSO Team to liaise with public and other groups.
- Suggest Activities
- New member(s)

## Ridgefield Park Supplemental CSO Team

### What does the permit say about Development and Evaluation of Alternatives?

The permittee shall evaluate a reasonable range of CSO control alternatives that will meet the water quality-based requirements of the CWA

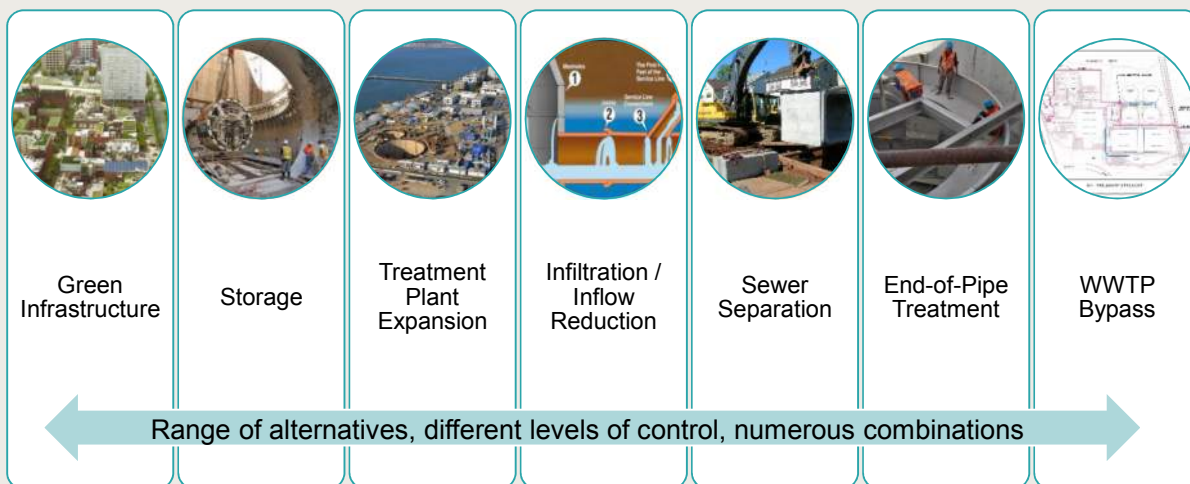
The Development and Evaluation of Alternatives Report shall include a list of control alternative(s) evaluated for each CSO enabling the permittee, ...to select the alternatives to ensure the CSO controls will meet the water quality-based requirements of the CWA

The permittee shall evaluate the practical and technical feasibility of the proposed CSO control alternative(s), and water quality benefits and give the highest priority to controlling CSO discharges to sensitive areas

The permittee shall select either the Demonstration or Presumption Approach

## Ridgefield Park Supplemental CSO Team

### Range of Alternatives



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## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report

### The Big Picture

#### BCUA Facilities

- Transport
- Treatment

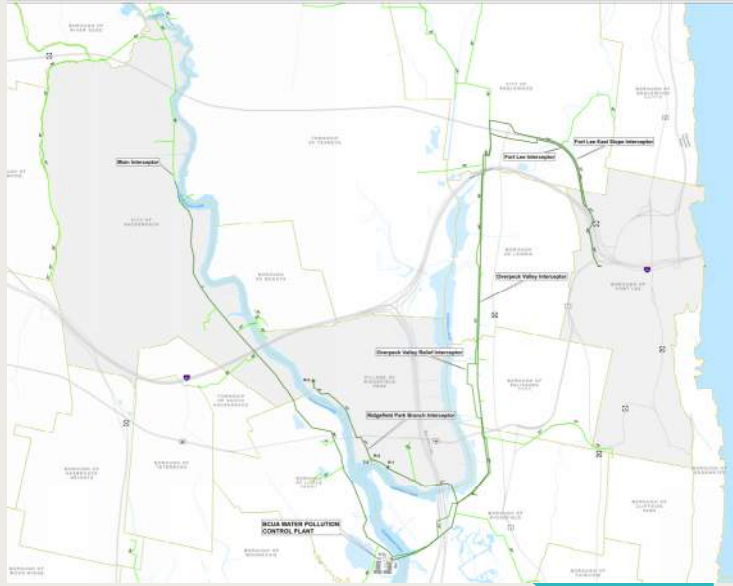
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## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report



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## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report

InfoWorks ICM Model was Used to  
Estimate Sewer Flow Capacity near WPCF:

Trunk Sewer	Estimated Max Flow (mgd)*
Main Trunk Sewer	115
Overpeck Trunk & Relief Sewers	95
Total Max Peak Flow to WPCF	210

\* Based on average wet well elevations and no system surcharge.

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## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report

#### Arcadis evaluation:

- Hydraulic and Process Capacity of each Treatment Unit:

- Influent Pumping Station
- Grit Removal
- Primary Settling Tanks
- Secondary Aeration Tanks
- Final Settling Tanks
- Chlorination and Dechlorination
- Outfall

## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report

#### Arcadis Evaluated:

- Existing Plant Capacity
- Bypassing of Secondary Treatment
  - Process Improvements
    - Needed to Meet NJPDES Permit Limits with Bypass
    - Construction and O&M Costs for Process Improvements Required
- Expanding STP Capacity
  - Treatment Improvements using
    - Ballasted Flocculation
    - Cost for Construction and O&M

## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report

#### BCUA Water Pollution Control Facility Preliminary Information

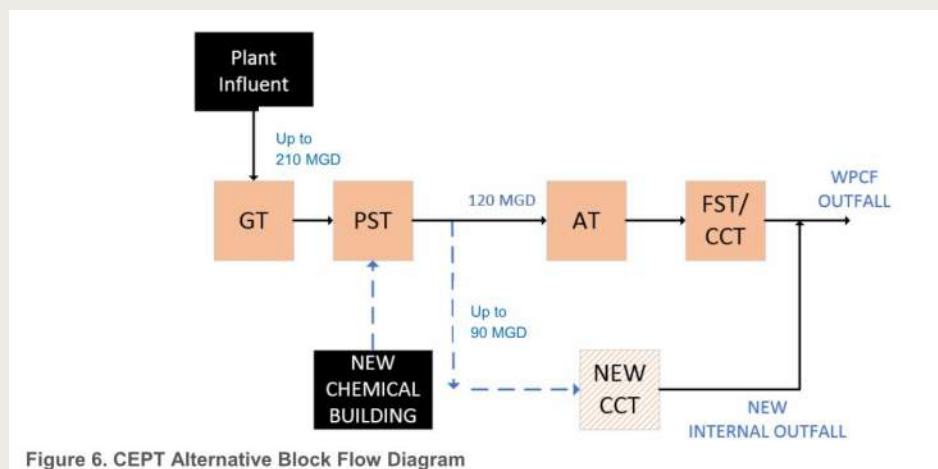
Description	Max Flow (mgd)
NJPDES Permitted*	94
Average Daily Flow	75
Treatment Capacity (10 state standard)	105
Existing Hydraulic Capacity	220
Max. Peak Flows	>200

\* BCUA is currently undertaking a TMDL Study to potentially increase

Trunk Sewer	Estimated Max Flow (mgd)*
Main Trunk Sewer	115
Overpeck Trunk & Relief Sewers	95
Total Max Peak Flow to WPCF	210

## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report



### Chemically Enhanced High Rate Treatment





## Chemically Enhanced High Rate Treatment

### Ridgefield Park Supplemental CSO Team

#### Development and Evaluation of Alternatives Report

Alternative	Construction Cost	Operation Costs	20-Year Present Worth
Chemically Enhanced High Rate Treatment	\$32M-\$127M (\$64M)	\$0.8M	\$44M-\$139M (\$76M)
Ballasted Flocculation	\$55M-\$220M (\$110M)	\$1.2M	\$73M-\$238M (\$128M)

Class 5 Cost Estimate (+100% -50%)



## Ridgefield Park Supplemental CSO Team

Development and Evaluation of Alternatives Report

# Village of Ridgefield Park Preliminary Alternatives

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## Ridgefield Park Supplemental CSO Team

Development and Evaluation of Alternatives Report – Screening Process

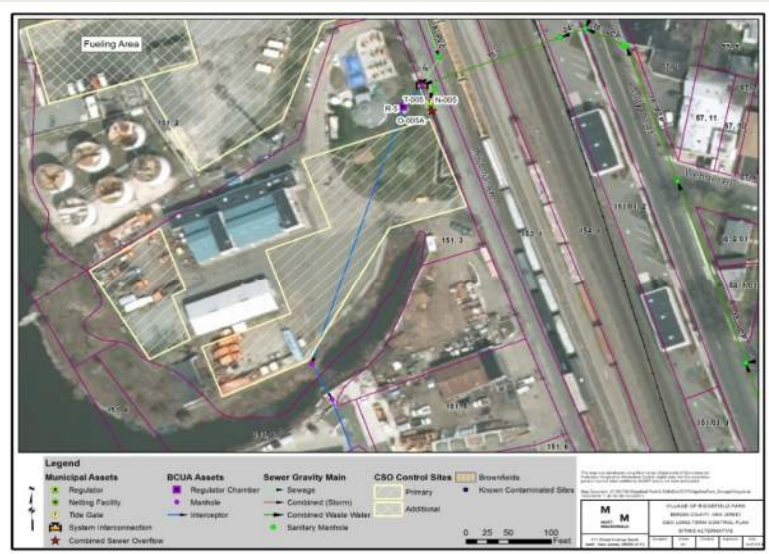
Area available: 0.8 Acres

Ownership: Village of  
Ridgefield Park

Land use considerations:

DPW Operations

BCUA Interceptor



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## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report – Screening Process

#### Strategies considered:

- Bioretention (raingardens, bioswales, etc.)
- Pervious pavement
- Dry wells

#### Potential locations considered:

- City right-of-way – curb strip
- City right-of-way – shoulder in non-parking locations
- City public and school properties
- Parking lanes
- Parking lots
- Roofs – dry wells



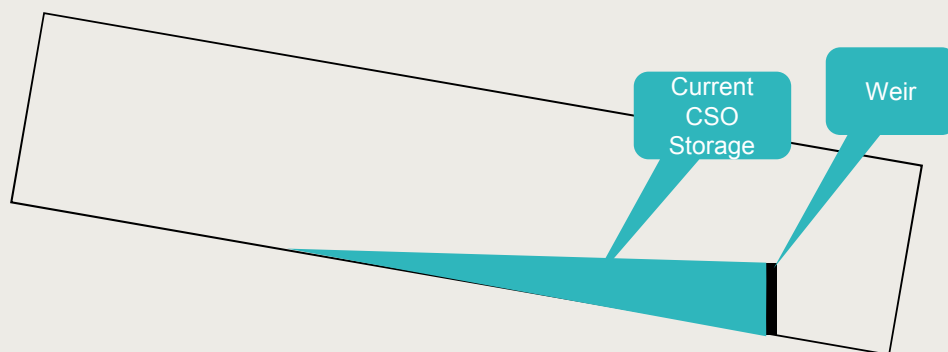
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## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report – Screening

#### Maximize inline storage capacity



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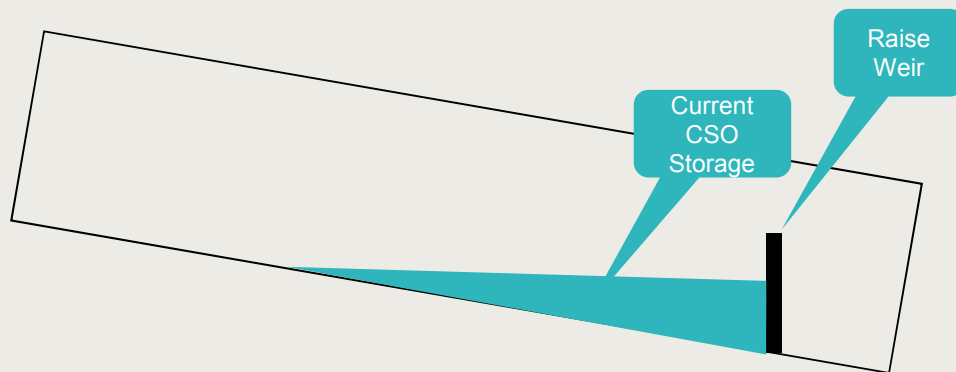
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## Ridgefield Park Supplemental CSO Team

Development and Evaluation of Alternatives Report – Screening

Maximize inline storage capacity



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## Ridgefield Park Supplemental CSO Team

Development and Evaluation of Alternatives Report – Screening

Maximize inline storage capacity

Works best with large flat pipes, which are not typical in Ridgefield Park



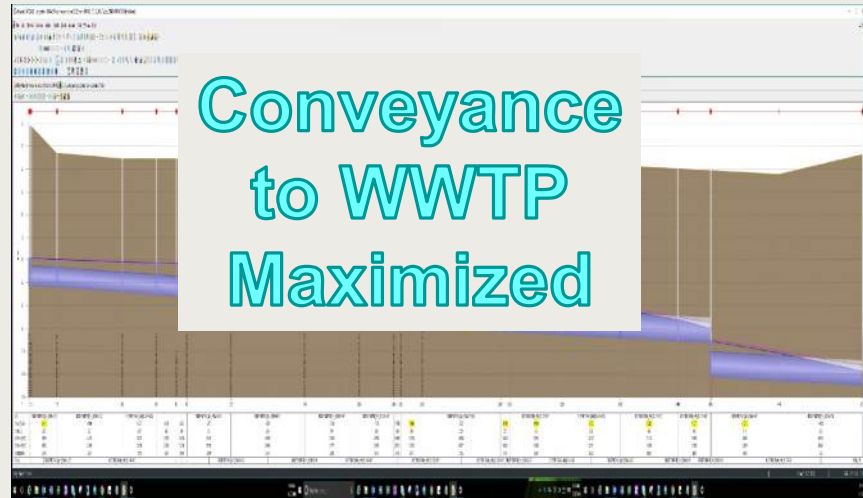
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## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report – Screening



## Ridgefield Park Supplemental CSO Team

NJ CSO Group Coordination – Agreed with BCUA Modeled Output

### • Levels of Control

- 0 Overflows
- 4 Overflows
- 8 Overflows
- 12 Overflow
- 20 Overflows
- 85% Capture

	Rank	Event	Total CSO (MG)	Start	End
Top 4 Storm Events by Overflow	1	49	262.0	9/28/2004 5:30	9/30/2004 13:45
	2	46	154.4	9/8/2004 3:30	9/9/2004 22:00
	3	48	129.4	9/18/2004 7:15	9/18/2004 15:15
	4	36	115.0	7/18/2004 16:30	7/19/2004 2:00
Top 8 Storm Events by Overflow	5	56	106.9	11/28/2004 3:30	11/29/2004 0:15
	6	35	101.0	7/12/2004 9:15	7/14/2004 23:30
	7	32	98.1	6/25/2004 17:00	6/26/2004 6:15
	8	37	94.4	7/23/2004 10:30	7/24/2004 4:15
Top 12 Storm Events by Overflow	9	6	89.9	2/6/2004 8:00	2/6/2004 23:45
	10	23	87.6	5/12/2004 15:30	5/12/2004 21:45
	11	38	78.9	7/27/2004 16:15	7/28/2004 8:45
	12	15	78.5	4/12/2004 18:15	4/14/2004 21:00
Top 20 Storm Events by Overflow	13	44	59.7	8/21/2004 13:30	8/21/2004 18:30
	14	17	59.5	4/26/2004 1:30	4/27/2004 6:00
	15	34	57.7	7/5/2004 3:00	7/5/2004 16:45
	16	43	57.2	8/14/2004 22:30	8/16/2004 12:30
	17	52	44.4	11/4/2004 14:15	11/5/2004 17:30
	18	57	44.3	12/1/2004 4:30	12/1/2004 15:15
	19	24	38.7	5/15/2004 21:30	5/16/2004 9:00
	20	22	38.6	5/10/2004 23:45	5/11/2004 5:45

## Ridgefield Park Supplemental CSO Team

Existing Conditions

Outfall No.	Outfall Name	Annual Total		Maximum	
		No. Overflow Events	Overflow Volume (Mgal)	Duration (hours)	Peak Flow (mgd)
001A	Bergen Turnpike	44	12.99	273.15	20.86
002A	Main Street and Bergen Turnpike	37	2.10	125.30	7.89
003A	Christie Street	59	15.49	310.99	31.87
004A	Mount Vernon Street	72	23.41	652.37	49.36
005A	Industrial Avenue	37	4.32	75.92	7.84
006A	Hackensack Avenue	35	0.75	205.94	3.74
<b>System-wide Total</b>		<b>not appl.</b>	<b>59.05</b>	<b>not appl.</b>	<b>not appl.</b>
<b>System-wide Maximum</b>		<b>72</b>	<b>23.41</b>	<b>652.37</b>	<b>49.36</b>

## Ridgefield Park Supplemental CSO Team

Future Baseline Conditions - 2050

- Required by Permit

Year	Population
1970	13,990
1980	12,738
1990	12,522
2000 (US Census)	12,873
2010 (US Census)	12,729
2017 (US Census 7-Year Estimate)	13,154

## Ridgefield Park Supplemental CSO Team

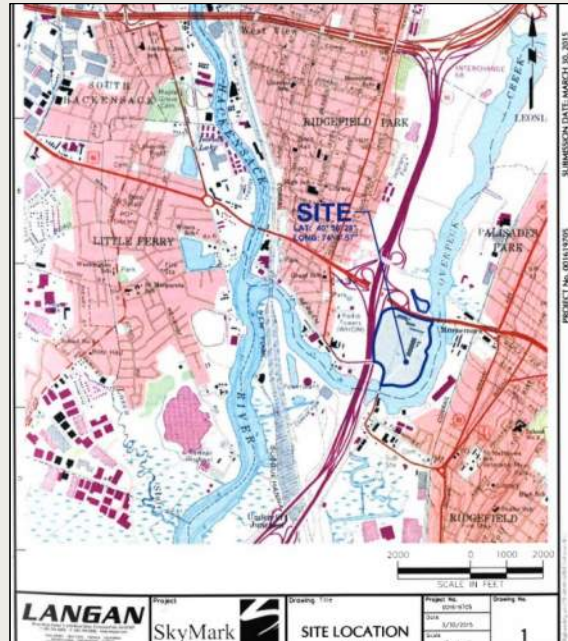
Future Baseline Conditions

Data Source	Projected Population to 2050 - Conservative (people)	Projected Population to 2050 - All Sources (People)
NJTPA	17,960	17,960
US Census Projection		15,910
NJ Department of Labor	15,720	15,720
Sky Mark Development Analysis	16,470	16,470
BCUA Projections		14,620
Average	16,720	16,100

## Ridgefield Park Supplemental CSO Team

### Future Baseline Conditions

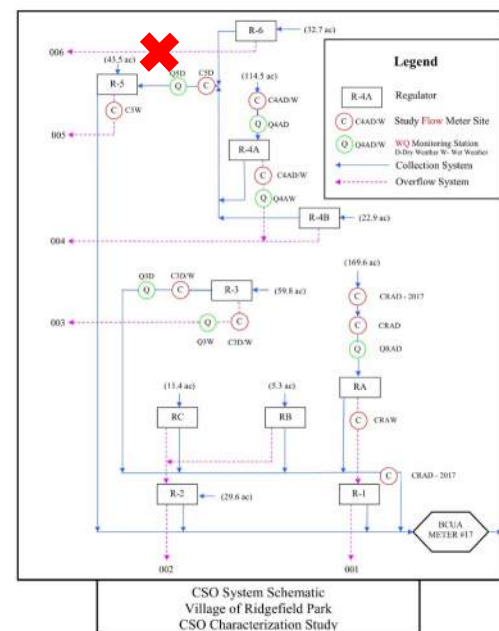
- Future growth associated with Skymark and outside of combined area.



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006





## Ridgefield Park Supplemental CSO Team

## Control Programs

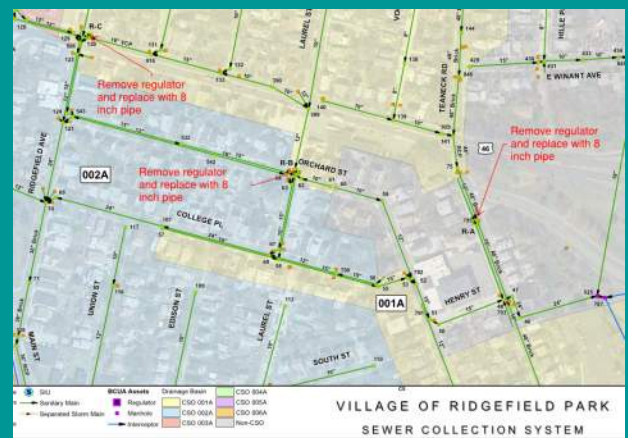
- Eliminate Regulator 006



## Ridgefield Park Supplemental CSO Team

## Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators

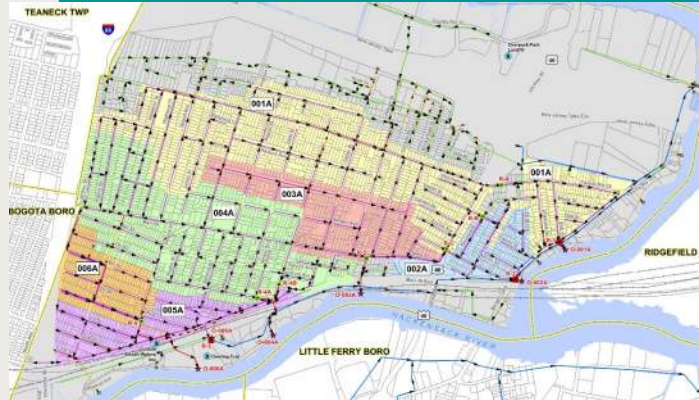




## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation



## Ridgefield Park Supplemental CSO

### Control Programs

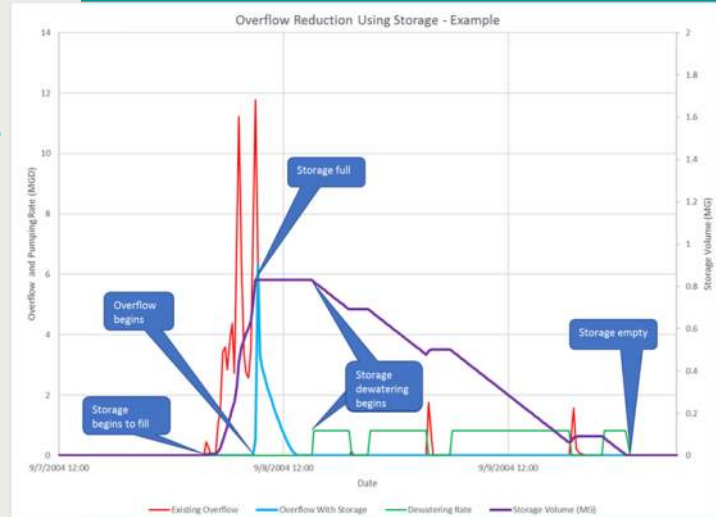
- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Preliminary Cost \$150-\$200M



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage





## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage
- Preliminary Cost \$40-\$90M



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage
- Tunnel



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage
- Tunnel



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage
- Tunnel





## Ridgefield Park Supplemental CSO Team

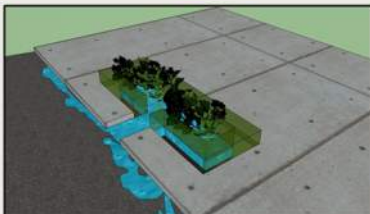
### Control Programs



## Ridgefield Park Supplemental CSO Team

### Control Programs

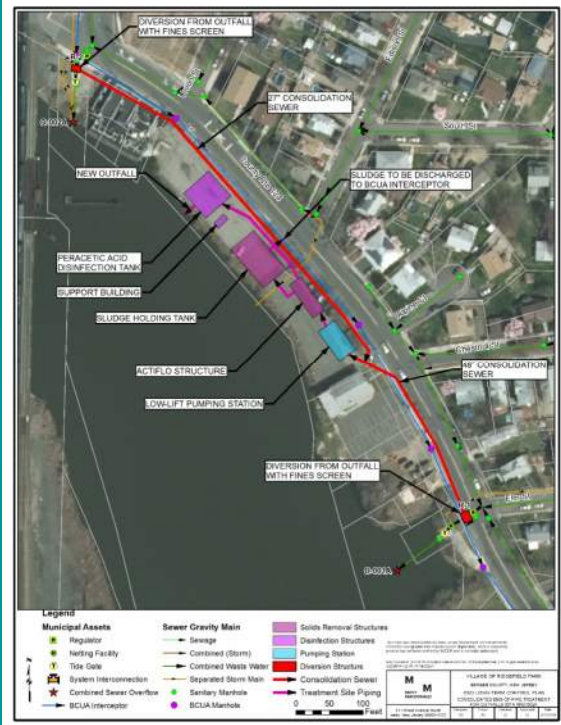
- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage
- Tunnel
- Green Infrastructure



## Ridgefield Park Supplemental CSO Team

### Control Programs

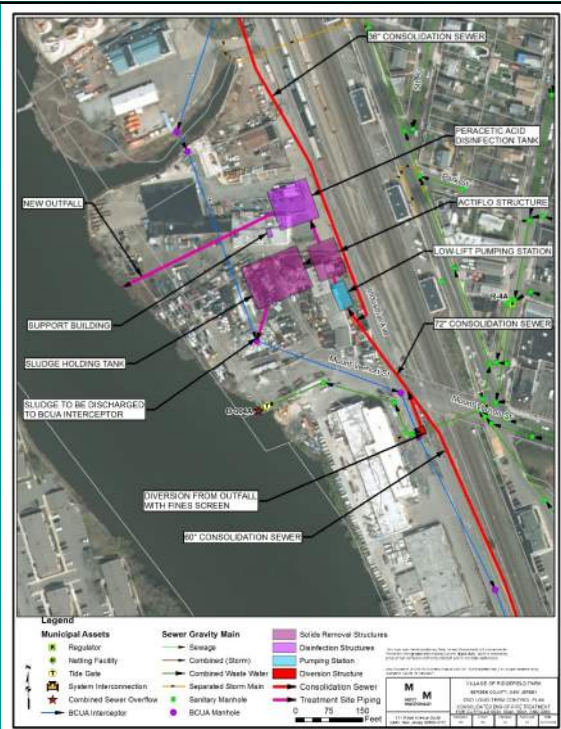
- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage
- Tunnel
- Green Infrastructure
- End of Pipe Treatment



## Ridgefield Park Supplemental CSO Team

### Control Programs

- Eliminate Regulator 006
- Eliminate Internal Regulators
- Sewer Separation
- Consolidated Storage
- Tunnel
- Green Infrastructure
- End of Pipe Treatment



## Ridgefield Park Supplemental CSO Team

### Development and Evaluation of Alternatives Report – DRAFT Outline

- Introduction
- General Information
- Public Participation Update
- Water Quality Objectives
- Development of Alternatives
  - Development and Screening Levels
- Costing
- Available Land Analysis
- Alternatives Evaluation
- Summary
- References

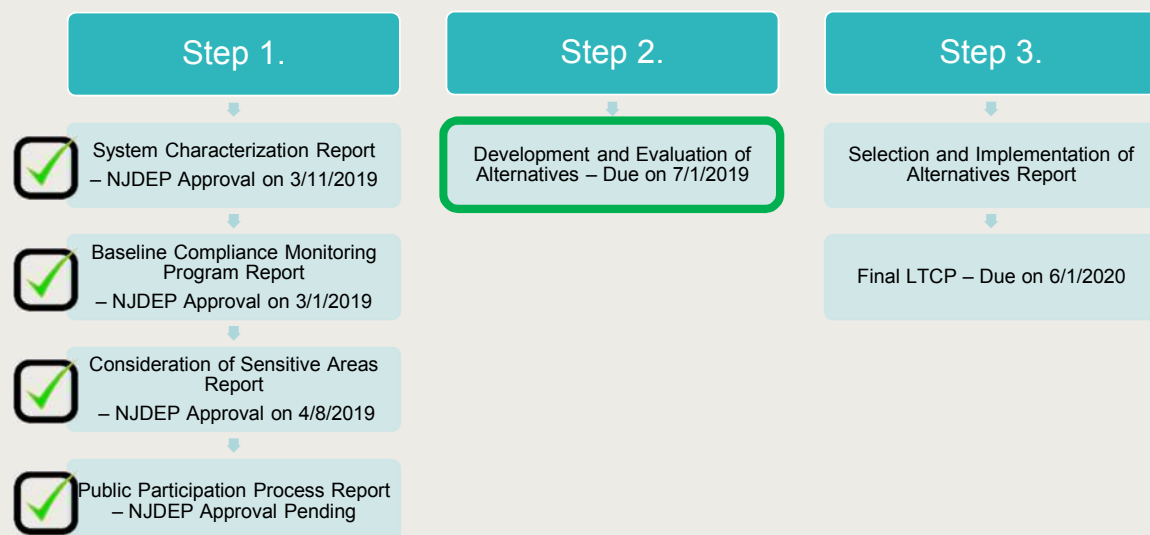
Mott MacDonald | Presentation

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28 May 2019

## Ridgefield Park Supplemental CSO Team

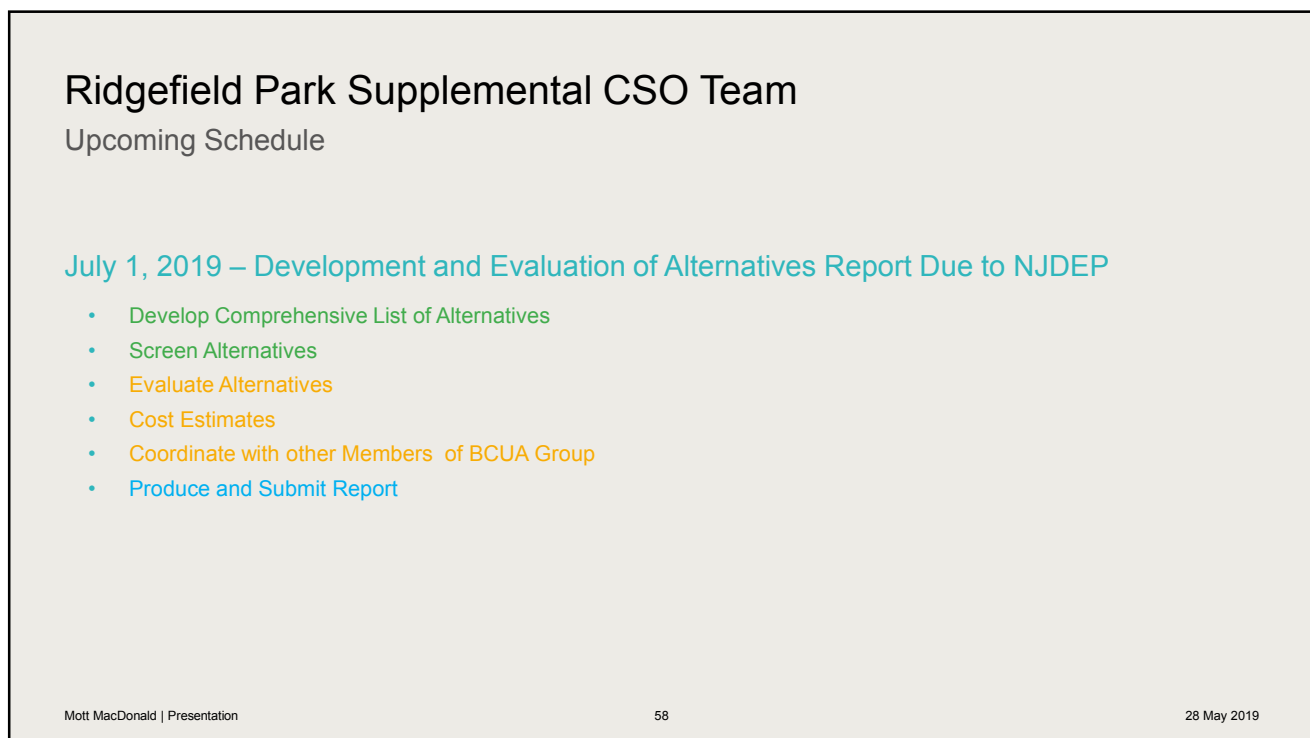
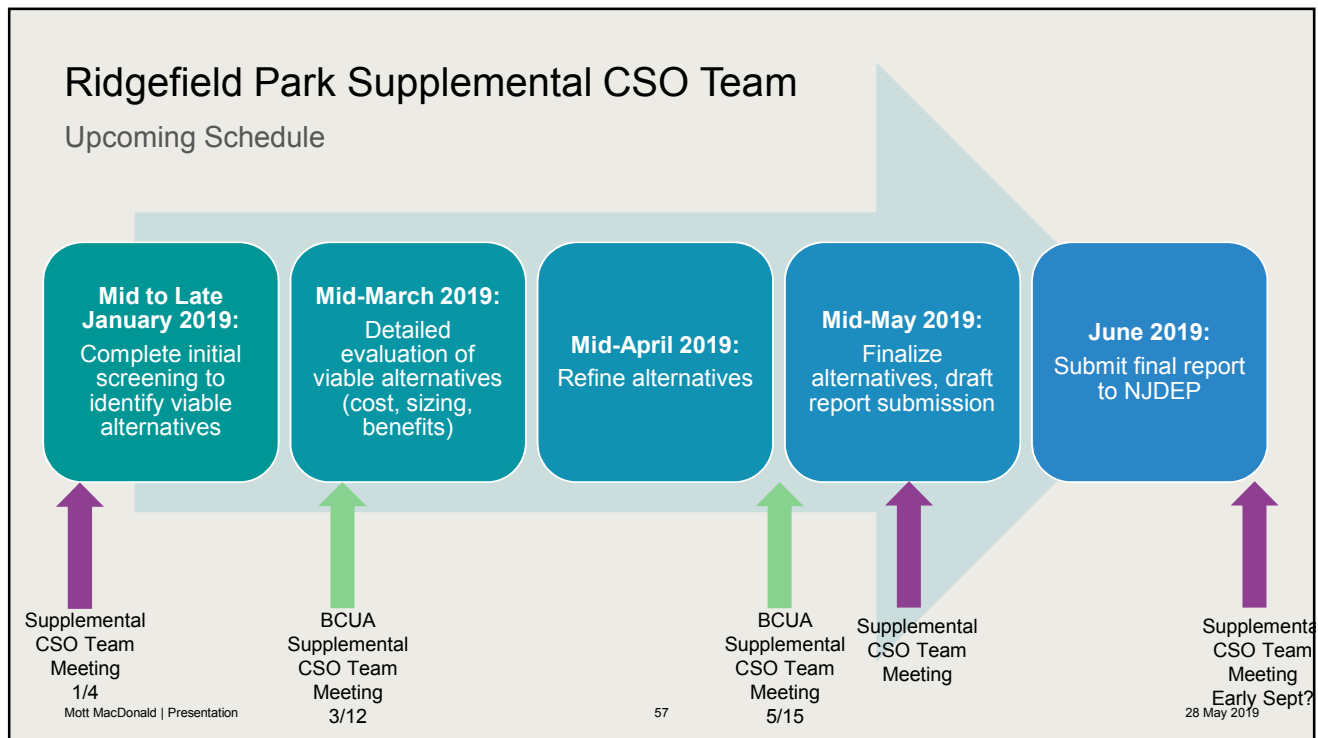
### Long term control plan submission and NJDEP review status



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May 28, 2019





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# Final Questions?

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01 June 2019

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# Thank You?

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01 June 2019