

Supplemental CSO Team – Session 15  
PVSC Service Area / North Bergen Service Area  
June 17, 2020– 5:00 PM

Virtual Meeting

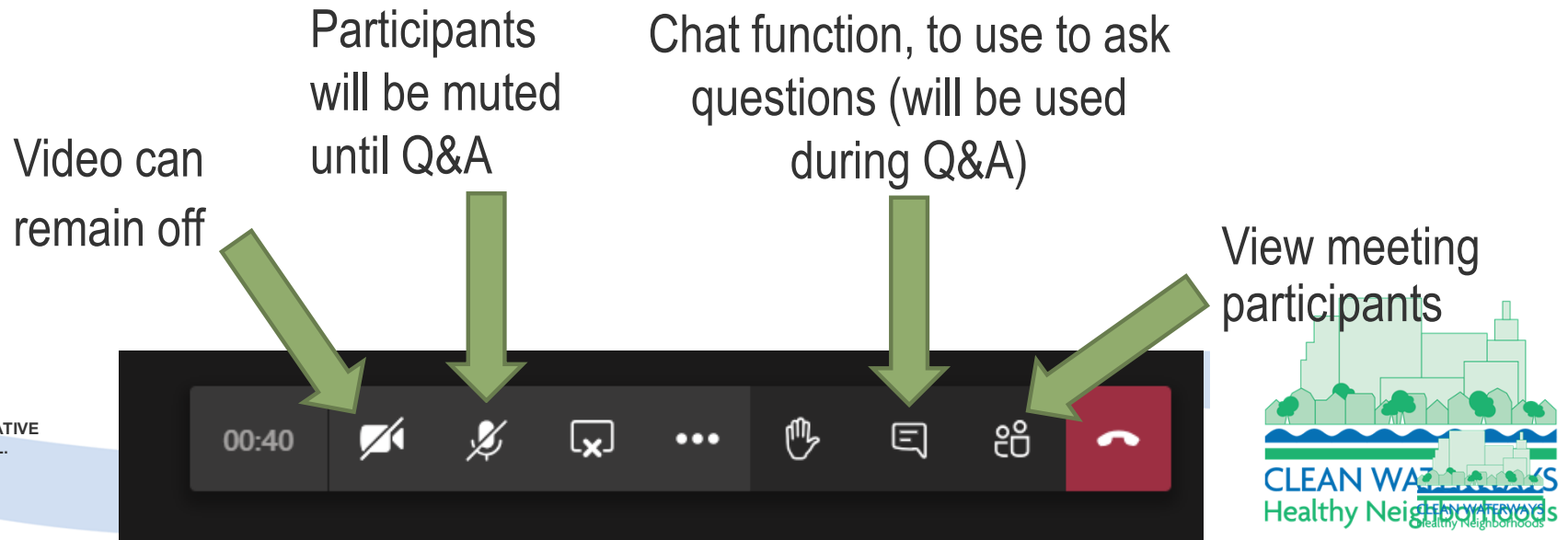


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Virtual Room Link: <https://gather.cdmsmith.com/v/4e0jDR4M1r9>

## Teams Interface Overview

- If you are having trouble with audio or your speakers, you can also call into the meeting:
  - Call (844) 566-5330 , Conference ID: 579 747 818#
- Note the arrows and locations of these icons are approximate. Depending on the device and screen you have, these icons may shift their location, but will remain consistent.



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## More About Q&A

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Not all questions/comments will be addressed during the meeting, but they will be recorded

Type your question/comment here

Meeting chat



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# Agenda

- Introduction and Recap
- Project Status and Schedule
- Current Alternatives Options: Municipal and Regional Alternatives
- Performance Summary of Alternatives
- Cost Summary of Alternatives
- Next steps
  - Selection and Implementation of Alternatives Report
- Virtual SCO Team Meeting Room Demonstration
- Break & View Virtual Meeting Room
- Questions and Discussion
- Adjourn

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# Introduction and Recap

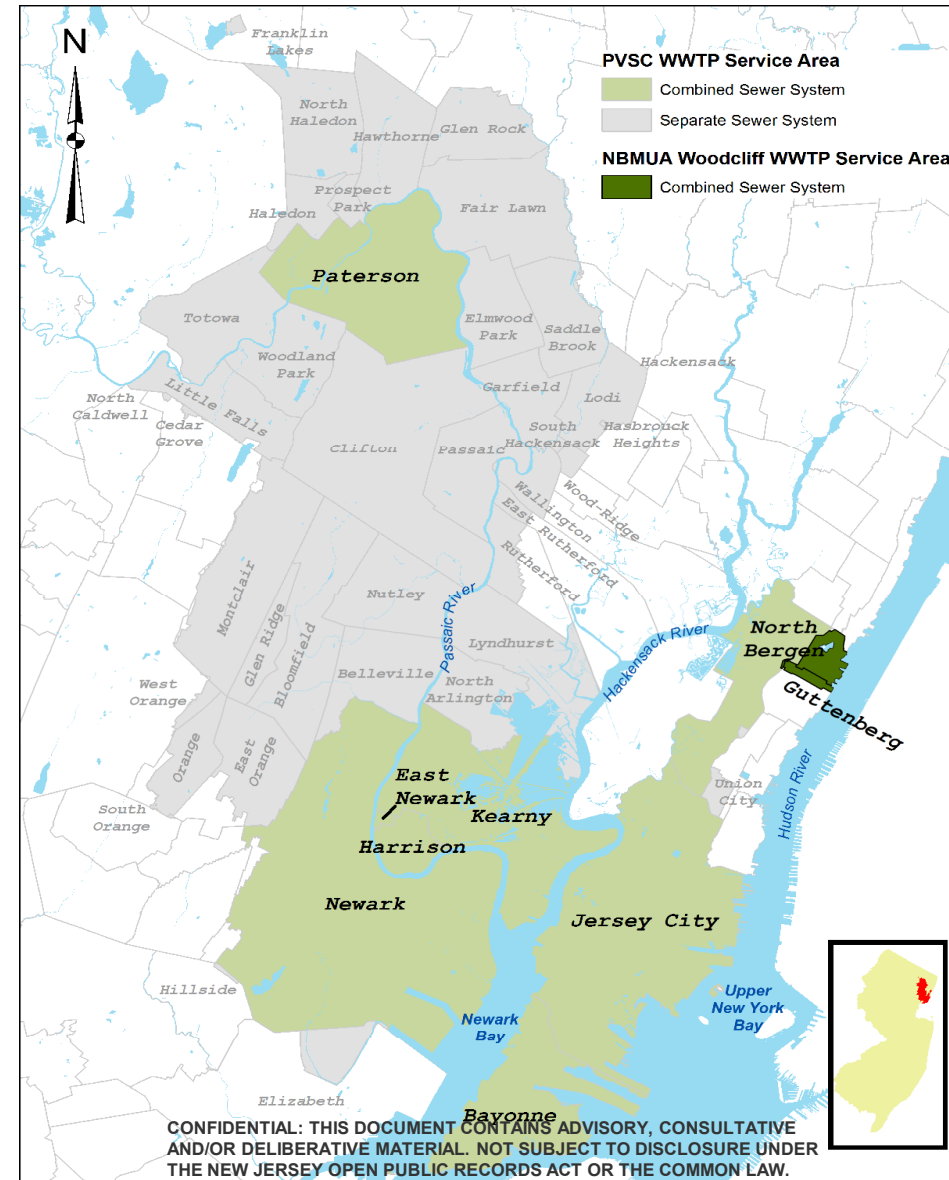
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# CLEAN WATERWAYS

## Healthy Neighborhoods

- City of Paterson
- City of Newark
- Town of Guttenberg
- Town of Harrison
- Town of Kearny
- Borough of East Newark
- North Bergen MUA
- City of Bayonne
- Jersey City MUA
- Passaic Valley Sewerage Commission (PVSC)



## Supplemental CSO Team Members

Member	Organization	Member	Organization
Dan Smereda	Bayonne Water Guardians	Sue Levine	Paterson Smart
Lisha Smereda	Bayonne Water Guardians	Ruben Gomez	City of Paterson Economic Development
Nicole Miller	Newark DIG	Sheri Ferreira	Greater Paterson Chamber of Commerce
Drew Curtis	Ironbound Community Corporation	Betty Jane Boros	New Jersey Business & Industrial Association
Robin Dougherty	Newark Greater Conservancy/Newark Business Partnership	Leslie Brunell	Stevens Institute of Technology
Jorge Santos	Newark Community Economic Development Corporation	Christopher C. Obropta, Ph.D	Rutgers University - Cooperative Extension Water Resources
Christopher Pianese	Township of North Bergen	Captain Bill Sheehan	Hackensack Riverkeeper
Janet Castro	Hudson Regional Health Commission Town of North Bergen	Harvey Morginstin	Passaic River Boat Club & Passaic River Superfund CAG
Thomas Stampe	North Bergen "Sustainable Jersey" group	Laurie Howard	Passaic River Coalition
Nancy Kontos	Bunker Hill Special Improvement District	Ben Delisle	Passaic River Rowing Association
Alison Cucco	Jersey City Environmental Commission	Patricia Hester-Fearon	Town of Kearny
Michele Langa	NY/NJ Baykeeper	Christopher Vasquez	Town of Kearny

# 59-Month Program Schedule and Milestones



January 1, 2016

- ✓ Coordinates of pumps, regulators, and outfalls
- ✓ System Characterization Work Plan
- ✓ Baseline Compliance Monitoring Program Work Plan

July 1, 2016

- ✓ Map of Combined and Separate Sewer Areas

✦ Permit Due Date

July 1, 2018

- ✓ System Characterization Report
- ✓ Public Participation Process Report
- ✓ Compliance Monitoring Program Report
- ✓ Consideration of Sensitive Areas Plan

July 1, 2019

- ✓ Development and Evaluation of Alternatives Report – Approved

~~June 1, 2020~~ October 1, 2020

Selection and Implementation of Alternatives Report in the Final LTCP



## Project Status

### What has happened since the last SCSO Team Meeting?

- Continued Evaluation of Alternatives by PVSC and Municipalities
- Received NJDEP Approval for Development and Evaluation of Alternatives Reports
- Permittees continued to refine plans to:
  - Refine technical components and costs of preferred alternatives
  - Short list candidate plans (one municipal plan, one regional plan)
- Meeting with Mayors of CSO Communities to discuss alternatives

# Current Alternatives Options: Municipal and Regional Alternatives

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## Evaluation of Alternatives: Municipal and Regional

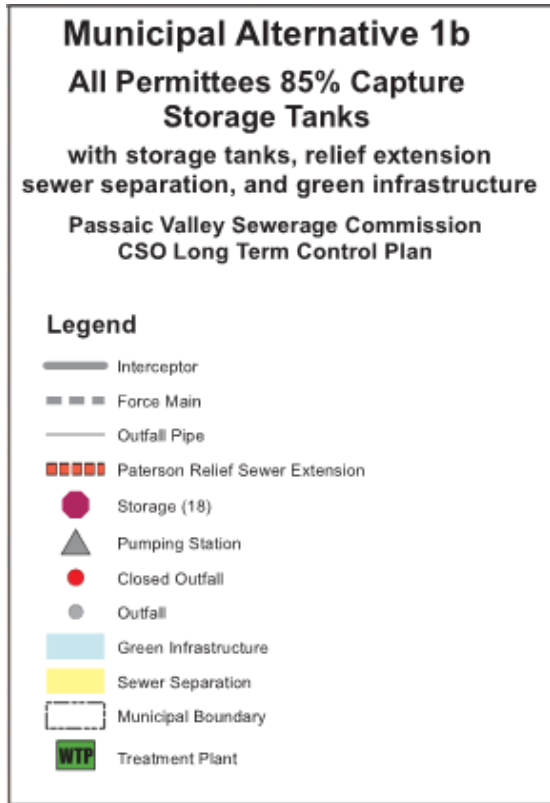
- Municipal permittees identified **local solutions** (to be implemented within municipal boundaries)
  - Green infrastructure, storage tanks, satellite treatment facilities, sewer separation
- Feasible and cost effective **regional** solutions were identified by PVSC (to be implemented across 2 or more municipalities)
  - Storage facilities, new interceptors, PVSC Bypass
- A mix of municipal and regional solutions were selected based on:
  - Performance (Reduction in the number of CSOs and/or CSO Volume)
  - Cost Effectiveness
  - Feasibility (Construction and Maintenance Requirements)

# Municipal Alternative (1b)

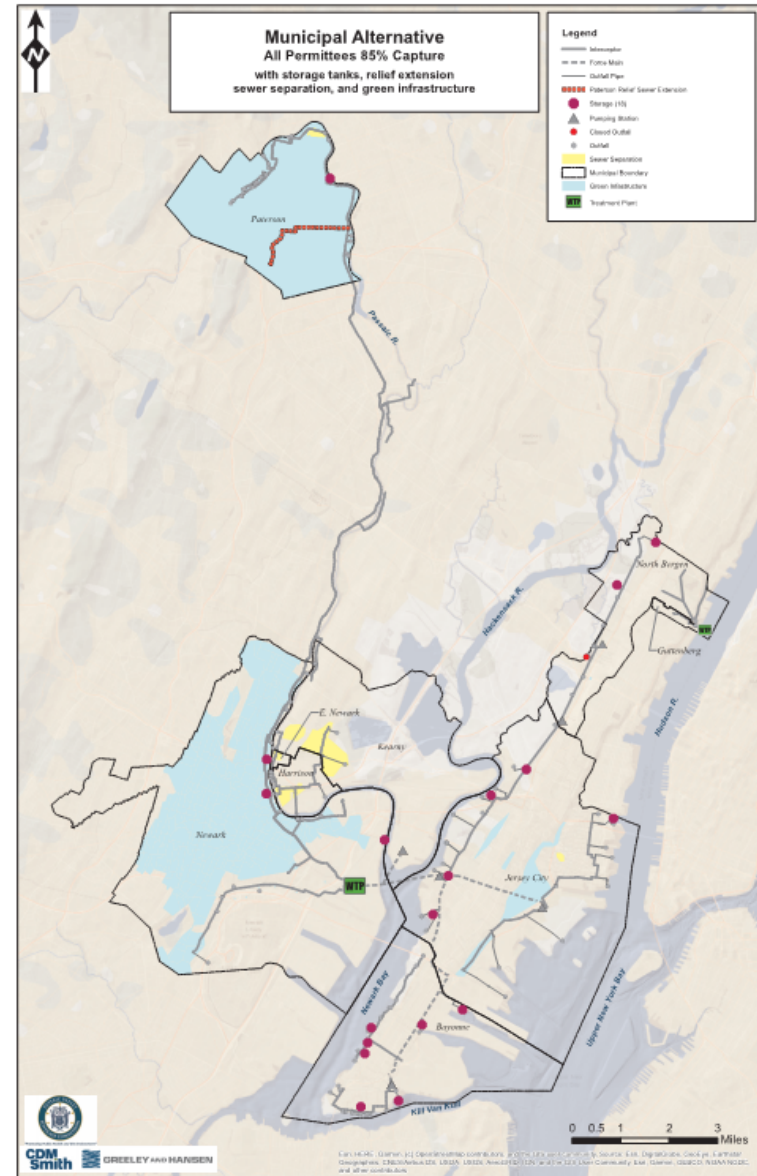
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# Summary of Selected Municipal Alternatives



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# Summary of Selected Municipal Alternative 1b

Permittee	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
Bayonne	335	0.73	347
East Newark	6	0.00	6
Harrison	16	0.03	16
Jersey City	645	1.16	673
Kearny	70	0.00	70
Newark	424	1.01	439
North Bergen	102	0.22	105
Paterson	122	0.27	126
<b>Total (Pending Updates)</b>	<b>\$1,720 M</b>	<b>\$3.42 M</b>	<b>\$1,782 M</b>



**CLEAN WATERWAYS**  
Healthy Neighborhoods

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# Bayonne – Alternative 1b

ID	Alternative 1b Selected Improvements	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
1	14 MG Storage Tank at BA001/002	161	0.22	164
2	3.2 MG Storage Tank at BA017	47	0.11	49
3	1.0 MG Storage Tank at BA010	18	0.07	19
4	1.0 MG Storage Tank at BA014	18	0.07	19
5	2.0 MG Storage Tank at BA015	32	0.09	34
6	1.6 MG Storage Tank at BA017	27	0.08	28
7	2.0 MG Storage Tank at BA021	32	0.09	34
<b>Total</b>		<b>\$335 M</b>	<b>\$0.73 M</b>	<b>\$347 M</b>

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# East Newark – Alternative 1b

ID	Alternative 1b Selected Improvements	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
1	Thread Mill Sewer Separation, 13 acres	3.9	0.00	3.9
2	Water Front Sewer Separation, 7 acres	2.1	0.00	2.1
<b>Total</b>		<b>\$6 M</b>	<b>\$0.00 M</b>	<b>\$6 M</b>

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# Harrison – Alternative 1b

ID	Alternative 1b Selected Improvements	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
1	Green Infrastructure Pilot Program (first 10 yrs. = \$750,000 commitment)	0.75	0.03	1.2
2	Partial Sewer Separation: - At 004 (11 ac. completed) - At 005 (37.6 ac completed; 49.5 ac remaining)	15	0.00	15
<b>Total</b>		<b>\$15.75 M</b>	<b>\$0.03 M</b>	<b>\$16.2 M</b>

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# Jersey City – Alternative 1b

ID	Alternative 1b Selected Improvements	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
1	I/I Source Control Piping Rehabilitation, 87,890 LF (12"-16")	37	0.00	37
2	28.9 acres of Sewer Separation at Bates	11	0.00	11
3	7% Green Infrastructure, 188 acres	92	0.42	98
4	6.2 MG Storage Tanks in Secaucus Postal Parking Lot (JC001, JC002)	102	0.15	107
5	7.1 MG Storage Tanks by Duffield and Howell (JC003, JC004, JC005)	114	0.16	118
6	10.15 MG Storage Tanks at Fisk/Culver Circle (JC006, JC007, JC008, JC009, JC010)	154	0.19	160
7	4.3 MG Storage Tanks at Tidelands Athletic Parking (JC011, JC013)	76	0.13	79
8	3.2 MG Storage Tanks at 14 <sup>th</sup> Street Dead End** (JC028, JC029)	59	0.11	63
<b>Total</b>		<b>\$645 M</b>	<b>\$1.16 M</b>	<b>\$673 M</b>

\*\*Alternate location: 18<sup>th</sup> Street & Jersey Ave. Preliminary Costs are presented. Costs may be updated as the LTCP is finalized.

# Kearny – Alternative 1b

ID	Alternative 1b Selected Improvements	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
1	Sewer Separation at Outfall KE010, 34 acres	10	0.00	10
2	Sewer Separation at KE006, 199 acres	60	0.00	60
<b>Total</b>		<b>\$70 M</b>	<b>\$0.00 M</b>	<b>\$70 M</b>

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# Newark – Alternative 1b

ID	Alternative 1b Selected Improvements	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
1	3.78 MG Storage Tank at NE022	54	0.12	56
2	16.92 MG Storage Tank at NE009 & NE010	188	0.24	191
3	7.8 MG Storage Tank at NE014	99	0.17	102
4	Regulator Modifications on Main Interceptor	0	0.00	0
5	Green Infrastructure, 212.67 acres	83	0.48	90
<b>Total</b>		<b>\$424 M</b>	<b>\$1.01 M</b>	<b>\$439 M</b>

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# North Bergen – Alternative 1b

ID	Alternative 1b Selected Improvements	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
1	6.0 MG Storage Tank*	80*	0.15*	82*
2	1.2 MG Storage Tank*	21*	0.07*	22*
3	Closure of Outfall NB014	0.1	0.00	0.1
4	Green Infrastructure, 1 acre	0.4	0.002	0.4
<b>Total</b>		<b>\$102 M</b>	<b>\$0.22 M</b>	<b>\$105 M</b>

\*Final tank sizes, placement, and estimated cost still need confirmation  
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# Paterson – Alternative 1b

ID	Alternative 1b Selected Improvements	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
1	Sewer Separation for PT023, 29.8 acres	9	0.00	9
2	19 <sup>th</sup> Ave Relief Sewer for PT030, 7705 LF of Pipe	50	0.00	50
3	2.5% Green Infrastructure, 75 acres	29	0.17	32
4	15' Diam. 1600 LF of 2.1 MG Storage Tunnel at PT025	34	0.10	35
<b>Total</b>		<b>\$122 M</b>	<b>\$0.27 M</b>	<b>\$126 M</b>

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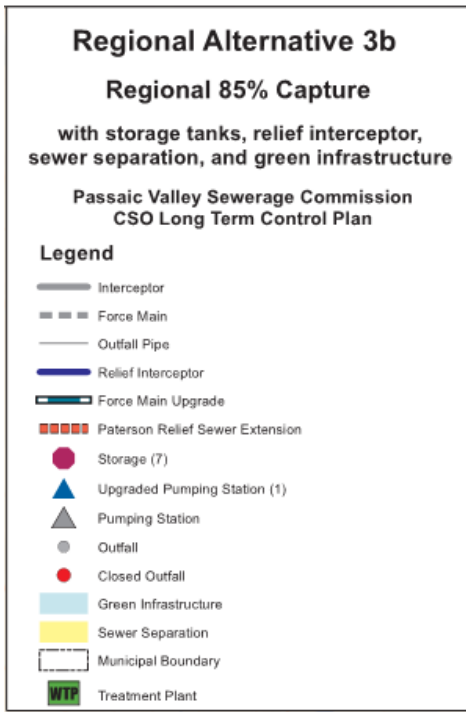


# Regional Alternative (3b)

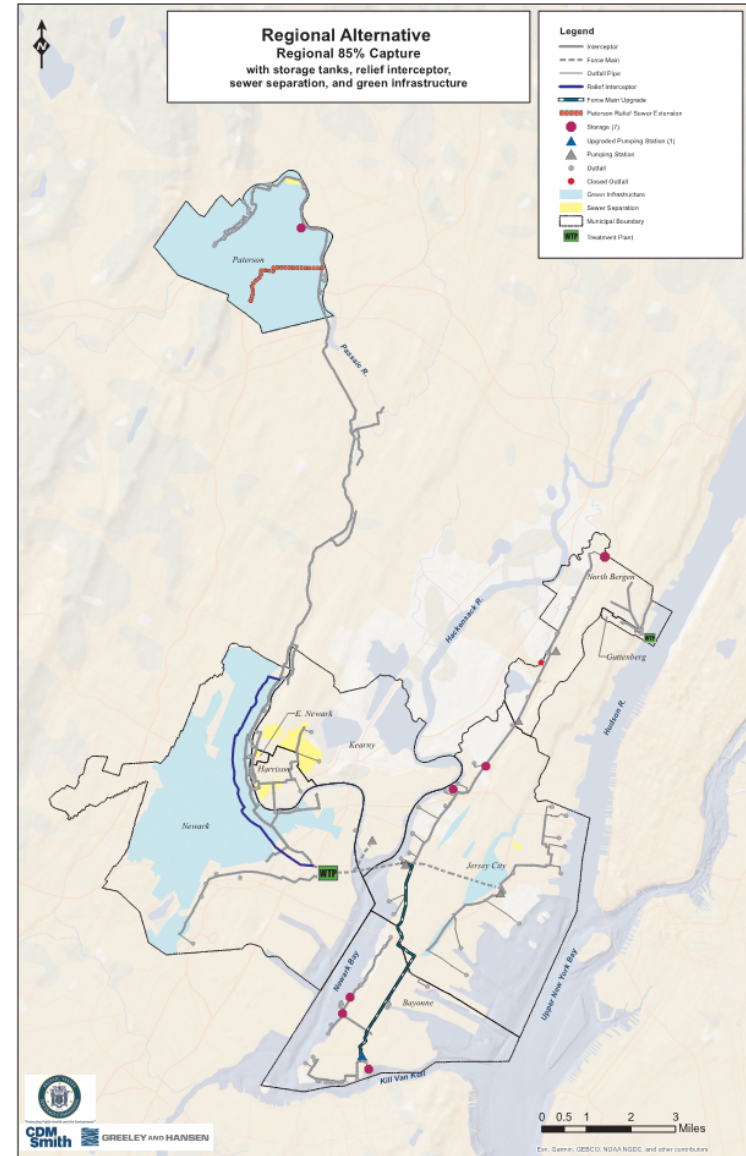
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# Summary of Selected Regional Alternatives



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# Summary of Selected Regional Alternative 3b

Permittee	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated Life Cycle Cost (\$M)
Bayonne	TBD	0.54	TBD
East Newark	TBD	0.00	TBD
Harrison	TBD	0.03	TBD
Jersey City	TBD	0.73	TBD
Kearny	TBD	0.00	TBD
Newark	TBD	0.48	TBD
North Bergen	TBD	0.15	TBD
Paterson	TBD	0.27	TBD
<b>Muni Total</b>	<b>\$966 M</b>	<b>\$2.20 M</b>	<b>\$1,003 M</b>
<b>Regional Facility Total</b>	<b>\$264 M</b>	<b>\$0.64 M</b>	<b>\$274 M</b>
<b>Grand Total (Pending Updates)</b>	<b>\$1,230 M</b>	<b>\$2.84 M</b>	<b>\$1,277 M</b>



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# Performance Summary

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# Performance Summary

Municipality	Baseline		Alt 1b		Alt 3b	
	Annual CSO (MG)	Capture	Annual CSO (MG)	Capture	Annual CSO (MG)	Capture
Bayonne	747	49%	217	85%	308	79%
East Newark	17	77%	11	85%	11	85%
Harrison	47	82%	38	85%	38	85%
Jersey City	1,557	72%	550	88%	1,145	77%
Kearny	255	75%	99	85%	99	85%
Newark	1,313	77%	686	86%	210	96%
North Bergen	274	66%	121	85%	144	82%
Paterson	353	82%	268	85%	268	85%
<b>Totals – System Wide CSO / Percent Capture*</b>	<b>4,563</b>	<b>69%</b>	<b>1,990</b>	<b>86%</b>	<b>2,223</b>	<b>85%</b>

# Cost Comparison: Municipal and Regional Alternatives

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# Cost Summary

	Municipal Alternative (1b)			Regional Alternative(3b)		
Permittee	Updated Capital Cost (\$M)	Updated O&M Cost (\$M)	Updated LCC (\$M)	Updated Capital Cost (\$M)	Updated Annual O&M Cost (\$M)	Updated LCC (\$M)
Bayonne	335	0.73	347	TBD	0.54	TBD
East Newark	6	0.00	6	TBD	0.00	TBD
Harrison	16	0.03	16	TBD	0.03	TBD
Jersey City	645	1.16	673	TBD	0.73	TBD
Kearny	70	0.00	70	TBD	0.00	TBD
Newark	424	1.01	439	TBD	0.48	TBD
North Bergen	102	0.22	105	TBD	0.15	TBD
Paterson	122	0.27	126	TBD	0.27	TBD
<b>Muni Total</b>	<b>\$1,720 M</b>	<b>\$3.42 M</b>	<b>\$1,782 M</b>	<b>\$966 M</b>	<b>\$2.20 M</b>	<b>\$1,003 M</b>
<b>Regional Total</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>\$264 M</b>	<b>\$0.64 M</b>	<b>\$274 M</b>
<b>Grand Total</b>	<b>\$1,720 M</b>	<b>\$3.42 M</b>	<b>\$1,782 M</b>	<b>\$1,230 M</b>	<b>\$2.84 M</b>	<b>\$1,277 M</b>

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# Next Steps

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## Next Steps & Schedule

- June - August, 2020: Municipal Selection of Alternatives (Municipal vs. Regional)
- August/September, 2020: Final Modeling and Financial Capability Analysis
- October 1, 2020: Final Selection of Alternatives Report and LTCP to NJDEP

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# Questions and Discussion



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