



ACEC - State Markets Conference

BWSC's Project Summary

April 14, 2022

Charlie Jewell
Director of Planning and Sustainability

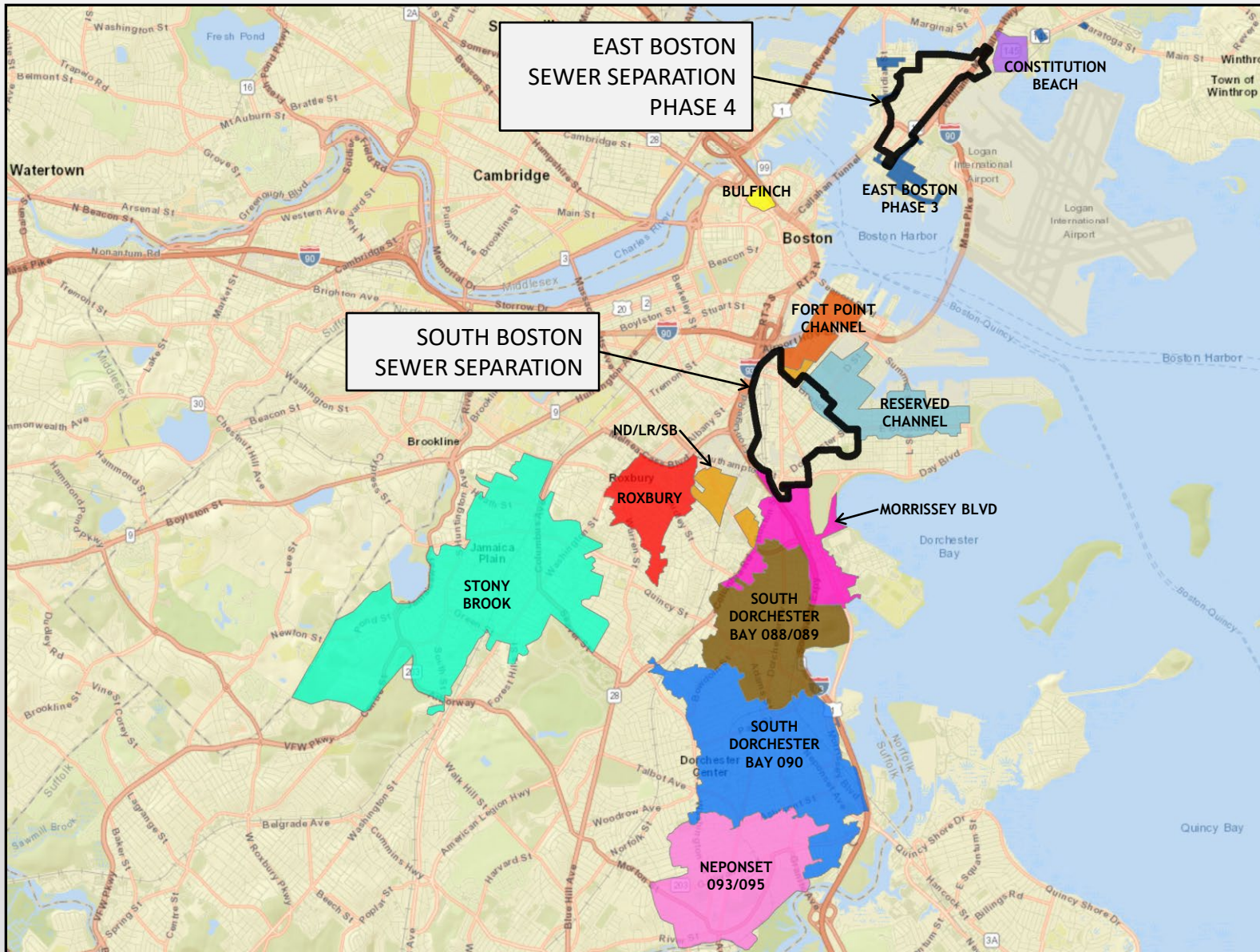
Water Main Replacement 2022

<u>Neighborhood</u>	<u>Length</u>	<u>Cost</u>	<u>Award Date</u>
Dorchester / Fenway / S. Boston	4,300 ft.	\$7.7 M	April, 2022
Back Bay	3,600 ft.	\$3 M	May, 2022
City Proper - Central	4,900 ft.	\$11.6 M	May, 2022
South End Phase I	7,400 ft.	\$9 M	June, 2022
Bunker Hill Ave - CTown	8,800 ft.	\$7.5 M	July, 2022
Rutherford Ave - CTown	11,800 ft.	\$7.5 M	July, 2022
South Boston	12,500 ft.	\$10.1 M	Sept, 2022
<u>Totals</u>	<u>53,300 ft.</u>	<u>\$56.4 M</u>	

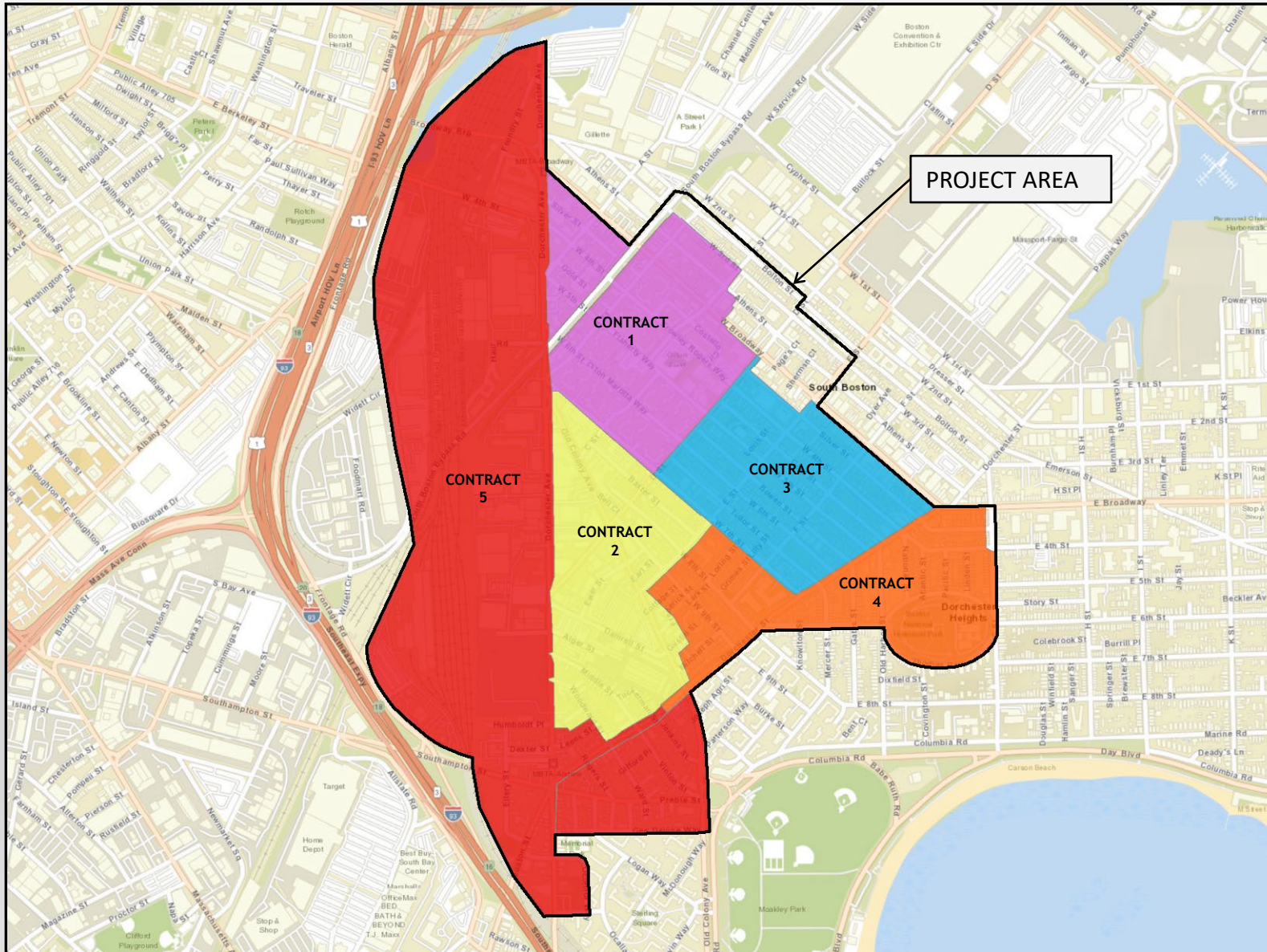
Sewer and Drain Replacement 2022

<u>Neighborhood</u>	<u>Length</u>	<u>Cost</u>	<u>Award Date</u>
Fenway	8,400 ft.	\$8.8 M	May, 2022
North Allston	9,400 ft.	\$5.2 M	July, 2022
Mattapan Rehab	20,800 ft.	\$6.4 M	Aug, 2022
Charlestown – City Sq	3,800 ft.	\$4.2 M	Sept, 2022
Brighton/Roxbury Relay	3,900 ft.	\$4 M	Sept, 2022
Citywide Rehab	6,800 ft.	\$8 M	Oct, 2022
South Boston Tidegates	N/A	\$0.5 M	Dec, 2022
<u>Totals</u>	<u>53,100 ft.</u>	<u>\$37.1 M</u>	

Separation Projects - CSO



South Boston Sewer Separation

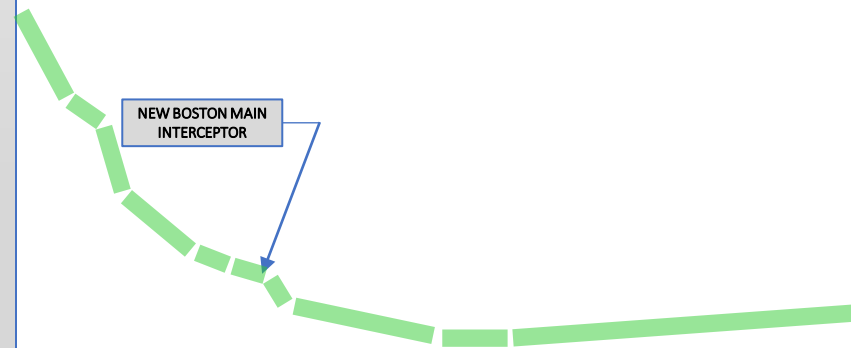


SBSS Water Main Replacement

SIZE	LENGTH (LF)
8"	19,520
12"	20,910
16"	6,475
20"	5,680
30"	1,290
TOTAL	53,875

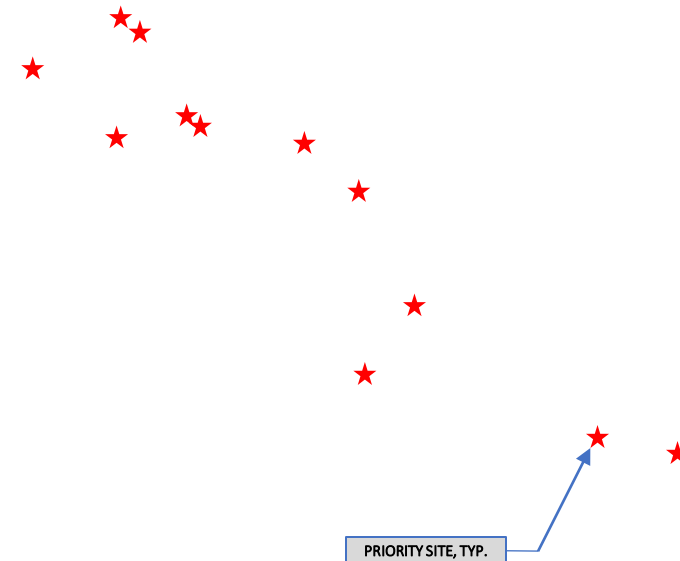
SBSS Sewer System Improvements

- 37,290 LF of Proposed Sewer
- 22,575 LF of Local Sewer Rehabilitation
- 5,685 LF of South Boston Interceptor Rehabilitation
- New Boston Main Interceptor Rehabilitation



SBSS Storm Drain Network

- 38,025 LF of Proposed Drain
- 6,400 LF of Combined Sewer Conversion
- 8,685 LF of Local Drain Rehabilitation
- Priority Sites for GI Technologies
- Preble Street Area Stormwater Improvements



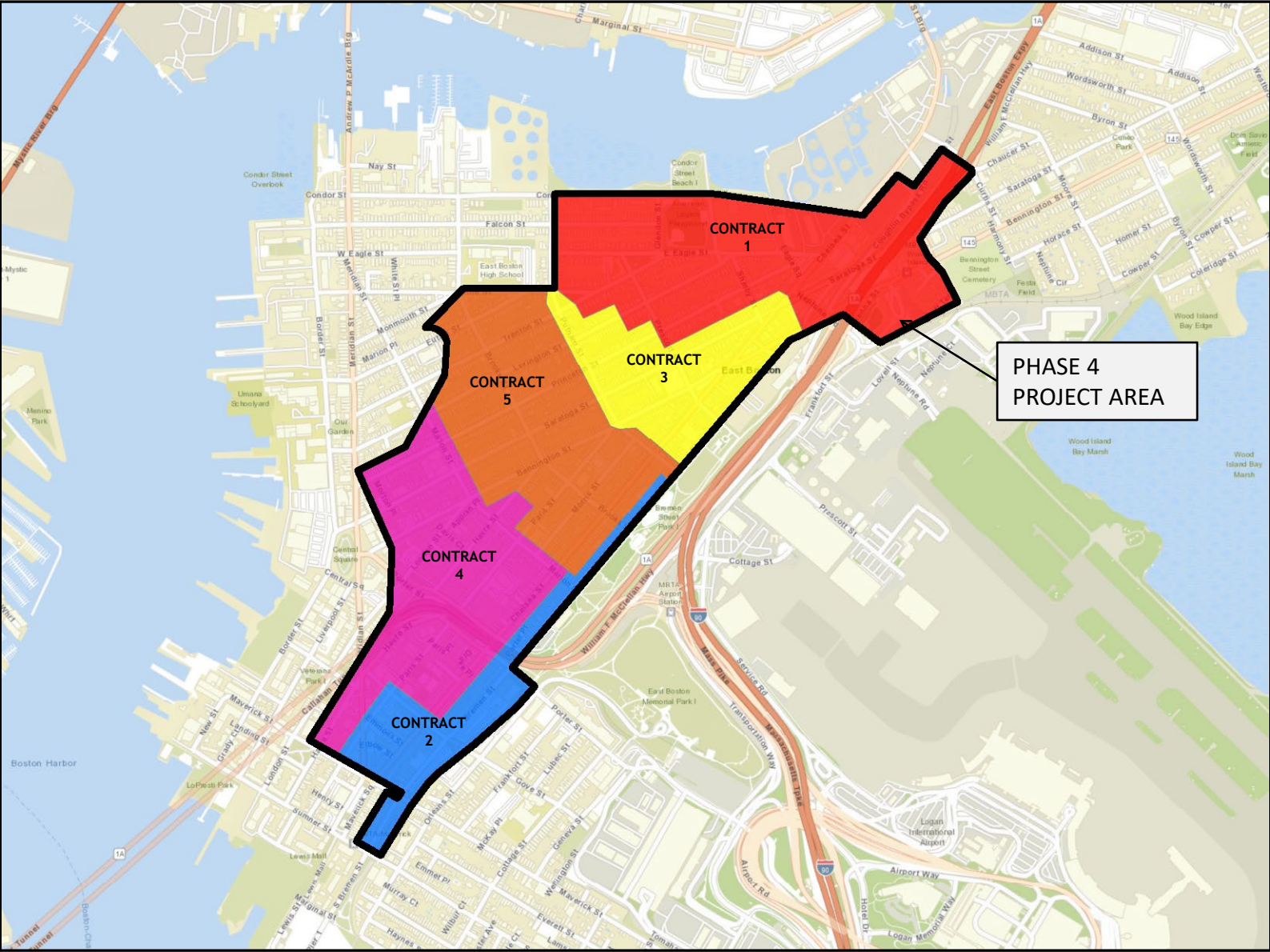
SBSS Construction Schedule

Phase	Start Date	End Date	Duration (Months)	2020	2021	2022	2023	2024	2025	2026	2027	2028
South Boston Sewer Separation	7/6/2021	11/15/2028	88									
Construction Contracts	7/6/2021	7/24/2027	72									
Contract 1	7/6/2021	8/6/2023	25									
Contract 2	7/24/2022	7/24/2024	24									
Contract 3	7/24/2023	7/24/2025	24									
Contract 4	7/24/2024	7/24/2026	24									
Contract 5	7/24/2025	7/24/2027	24									
Paving Contracts	7/6/2023	11/15/2028	64									
Contract 6	7/6/2023	11/15/2025	28									
Contract 7	4/15/2026	11/15/2028	31									

SBSS Construction Cost

CONTRACTS		2021	2022	2023	2024	2025	2026	2027	2028	TOTALS
Contract 1	Drain	\$ 1,403,376	\$ 2,806,752	\$ 1,637,272						\$ 5,847,400
	Sewer	\$ 1,689,466	\$ 3,378,931	\$ 1,971,043						\$ 7,039,440
	Water	\$ 955,500	\$ 1,911,000	\$ 1,114,750						\$ 3,981,250
Contract 2	Drain		\$ 2,016,368	\$ 4,032,735	\$ 2,016,368					\$ 8,065,470
	Sewer		\$ 1,717,733	\$ 3,435,465	\$ 1,717,733					\$ 6,870,930
	Water		\$ 2,324,750	\$ 4,649,500	\$ 2,324,750					\$ 9,299,000
Contract 3	Drain			\$ 1,804,856	\$ 3,609,713	\$ 1,804,856				\$ 7,219,425
	Sewer			\$ 1,420,689	\$ 2,841,378	\$ 1,420,689				\$ 5,682,755
	Water			\$ 1,705,705	\$ 3,411,410	\$ 1,705,705				\$ 6,822,820
Contract 4	Drain				\$ 1,487,909	\$ 2,975,818	\$ 1,487,909			\$ 5,951,635
	Sewer				\$ 885,968	\$ 1,771,935	\$ 885,968			\$ 3,543,870
	Water				\$ 2,149,624	\$ 4,299,248	\$ 2,149,624			\$ 8,598,495
Contract 5	Drain					\$ 735,545	\$ 1,471,090	\$ 735,545		\$ 2,942,180
	Sewer					\$ 3,319,920	\$ 6,639,840	\$ 3,319,920		\$ 13,279,680
	Water					\$ 2,156,785	\$ 4,313,570	\$ 2,156,785		\$ 8,627,140
SBI/NB Rehabilitation						\$ 4,136,500	\$ 4,136,500			\$ 8,273,000
NBMI Rehabilitation			\$ 4,150,000	\$ 4,150,000						\$ 8,300,000
Paving Contracts				\$ 1,896,100	\$ 3,792,205	\$ 3,160,170	\$ 2,528,135	\$ 3,792,200	\$ 3,476,190	\$ 18,645,000
TOTAL		\$ 4,048,342	\$ 18,305,533	\$ 27,818,115	\$ 24,237,055	\$ 27,487,170	\$ 23,612,635	\$ 10,004,450	\$ 3,476,190	\$ 138,989,490

East Boston Sewer Separation

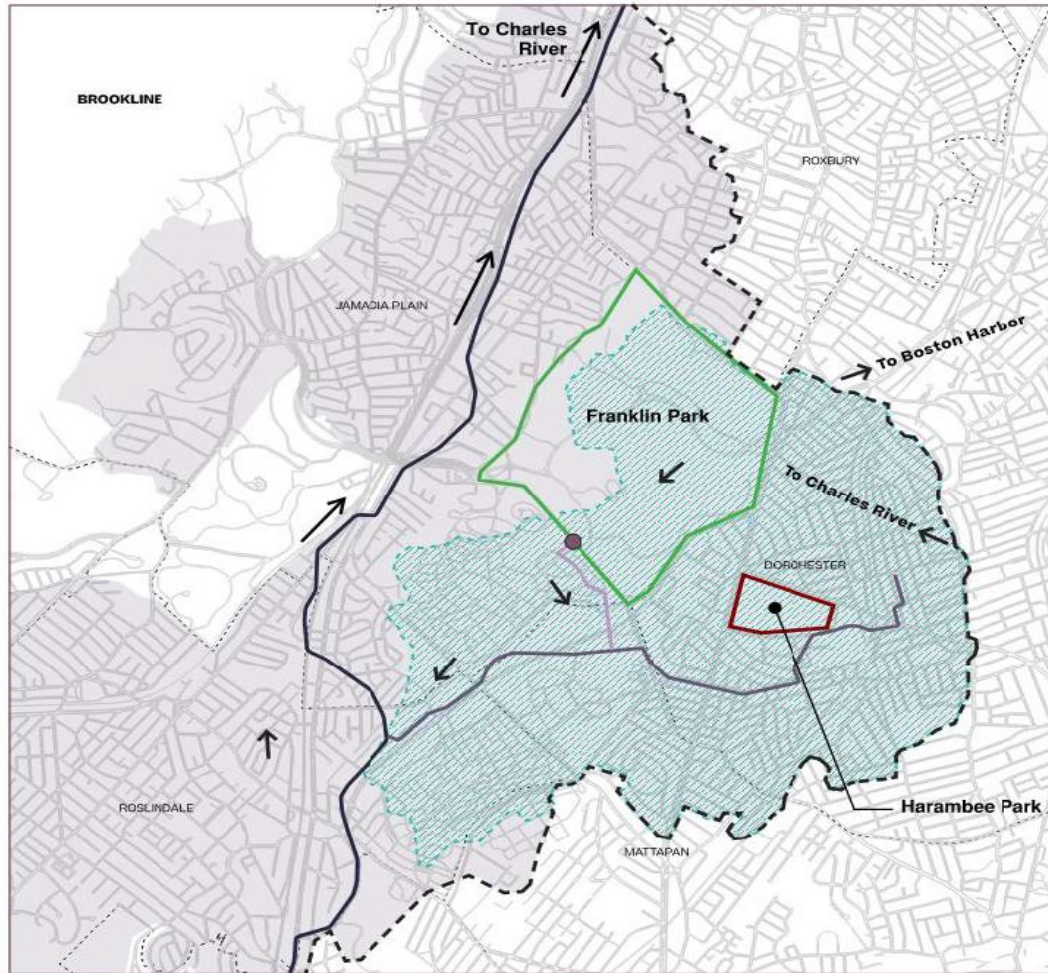


EBSS Construction Schedule

Phase	Start Date	End Date	Duration (Months)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
East Boston Sewer Separation	4/15/2024	11/15/2031	91			[Blue bar spanning 2024-2031]							
Construction Contracts	4/15/2024	4/15/2030	72			[Grey bar spanning 2024-2030]							
Contract 1	4/15/2024	4/15/2026	24			[Green bar spanning 2024-2026]							
Contract 2	4/15/2025	4/15/2027	24				[Green bar spanning 2025-2027]						
Contract 3	4/15/2026	4/15/2028	24					[Green bar spanning 2026-2028]					
Contract 4	4/15/2027	4/15/2029	24						[Green bar spanning 2027-2029]				
Contract 5	4/15/2028	4/15/2030	24							[Green bar spanning 2028-2030]			
Paving Contracts	4/15/2026	11/15/2031	67					[Grey bar spanning 2026-2031]					
Contract 6	4/15/2026	11/15/2028	31					[Red bar spanning 2026-2028]					
Contract 7	4/15/2029	11/15/2031	31								[Red bar spanning 2029-2031]		

Harambee Park Drainage Structure

- 122 Acre Watershed
- Approx. 65% Impervious Area
- Annual Phosphorus Load of 177 lb/year



Watersheds

- Stony Brook Conduit
- Canterbury Brook Conduit
- Canterbury Brook Connector
- Stony Brook Watershed
- ▨ Canterbury Brook Watershed
- Flow Direction

Harambee Park Drainage Structure

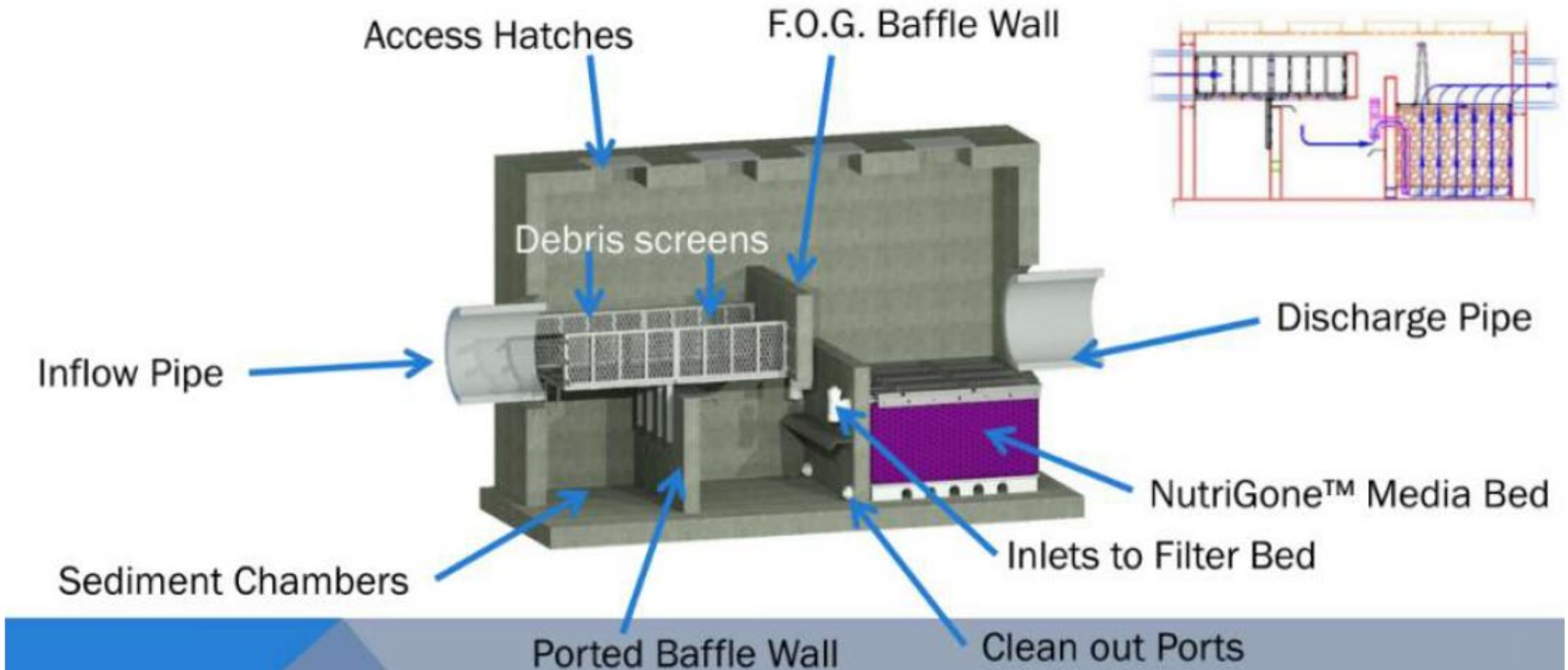


Figure 20 – Product Image (Source: EcoSense)

Planning Division Projects

3D Models of Sewer Structures – Phase 2 – Summer 2022

Charlestown Area SSES – Summer 2022

CSO Public Notification Program – Summer - 2022

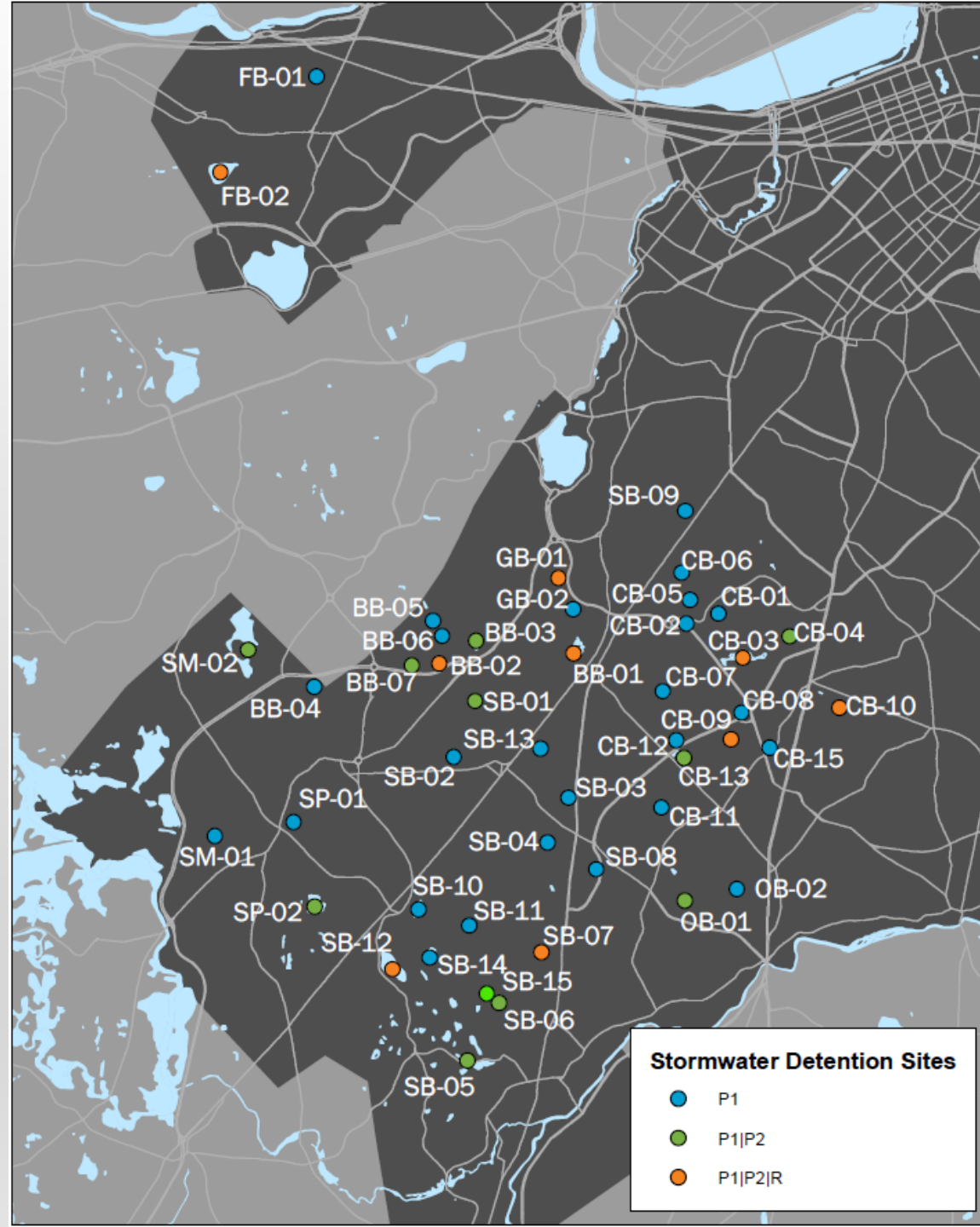
Stormwater Detention – Fall 2022

Dorchester Interceptor – Design Relief Sewer – Fall 2022

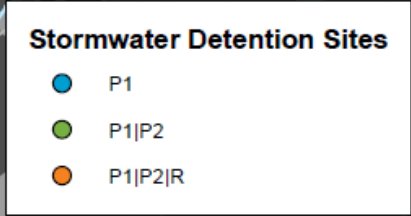
Dorchester Interceptor – Design Storage Tank – Fall 2022

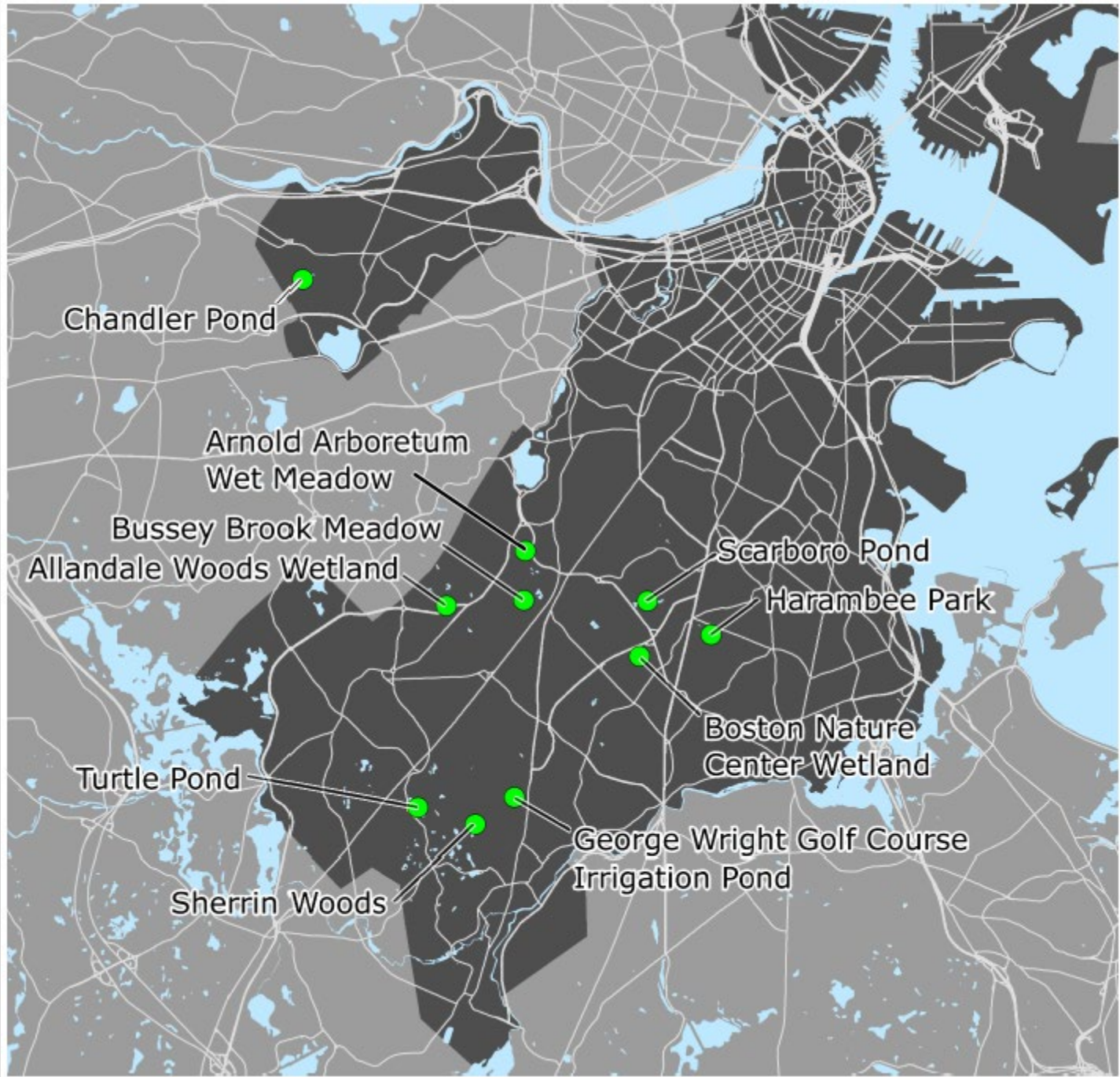
Sewer and Drain Models – Fall 2022

- Update of Models – Changes to Commission Sewer and Drain since 2018
 - Upcoming separation contracts – East Boston and South Boston
- Build out Model – Review to what extent models should be expanded
- Update Stormwater Quality component and recalibrate
- Assist Commission with ability to calculate CSO Activations and Quantities
- Update 2D Mesh for Inundation Model – Update Lidar – Update Coastal Boundary Conditions
 - Re-Run Storms
 - Climate Ready Boston Storms
- Examine Stormwater Detention Impacts
- Quantify left over Inundation
- Provide 3 years of training and support



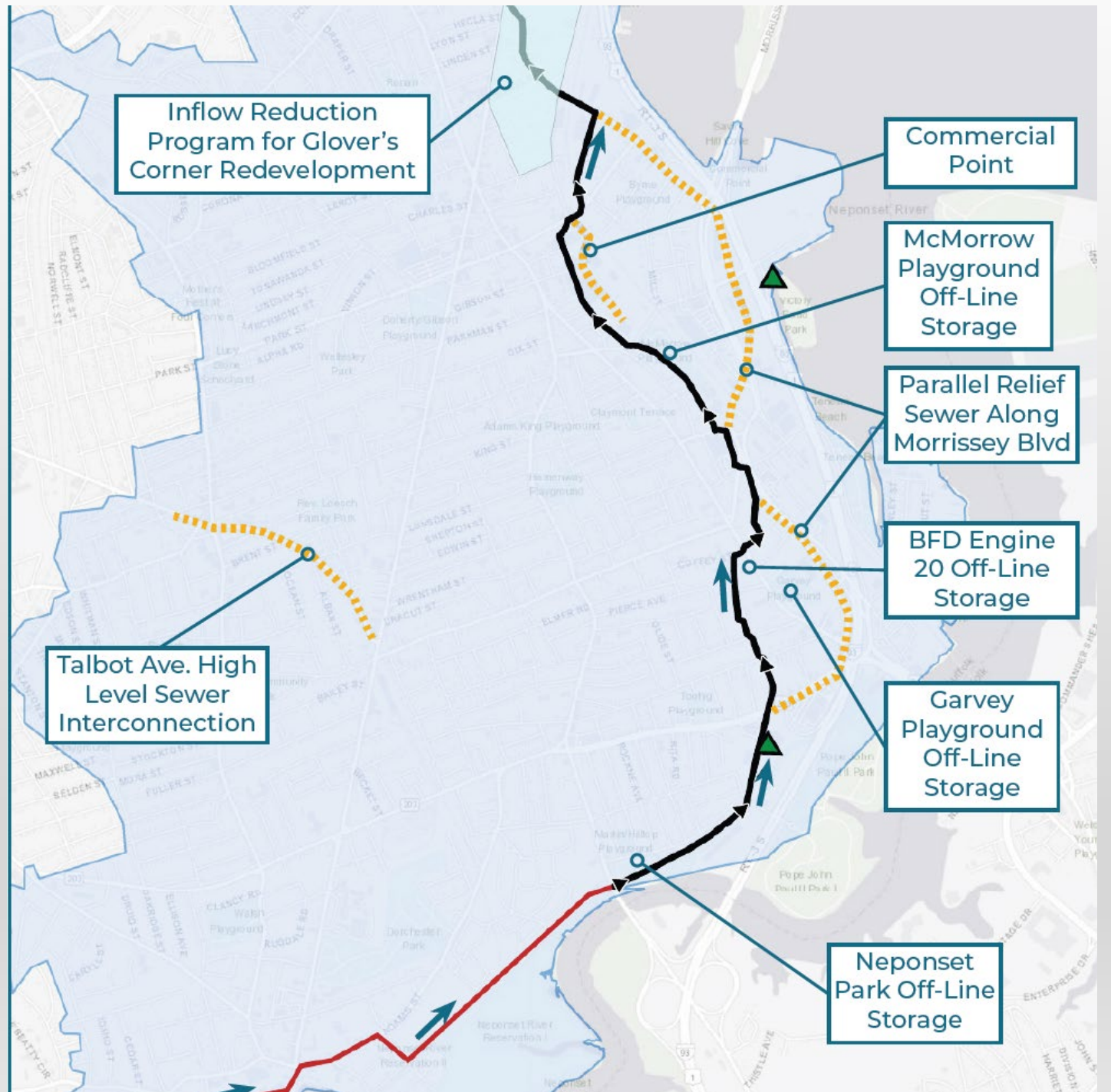
P1 – Initial List of Sites – 45
P2 – Refined List – 21
R – Recommended Sites - 10





Recommended Stormwater Detention Sites

Dorchester Interceptor Relief



Potential

- Coastal Stormwater Discharge Analysis Project – Climate Ready Boston

Questions

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