

MWRA Wastewater Advisory Committee

Municipal Stormwater Planning, Innovations, Outreach and I/I Removal

Charlie Jewell
Director of Planning and Sustainability
Boston Water and Sewer Commission

February 6, 2015

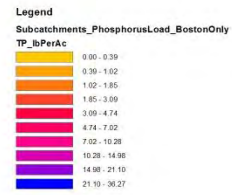
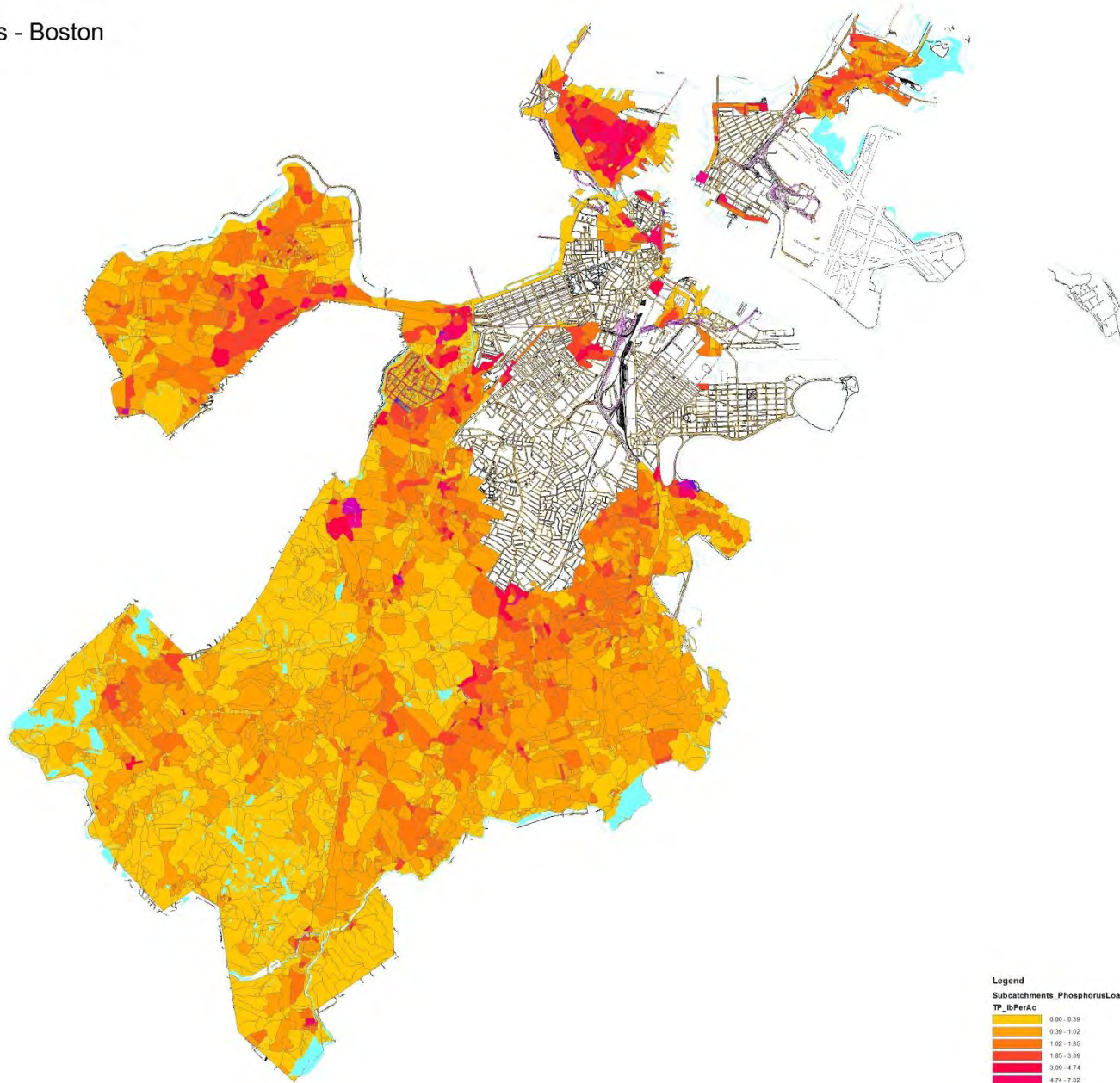
Consent Decree

- 2012
- Stormwater
- Illicit Discharges
 - Commission Policy on Correction
 - Leaking Laterals

Charles River

- TMDL – Phosphorus
- Update Stormwater Model
 - Pollutant Loadings
- Phosphorus in base flow
- Develop BMP/GI/LID Implementation Plan
- Site Plan Review

Phosphorus Loadings - Boston



Demonstration Projects

- Central Square
- Audubon Circle
- City Hall Plaza
- Monitoring

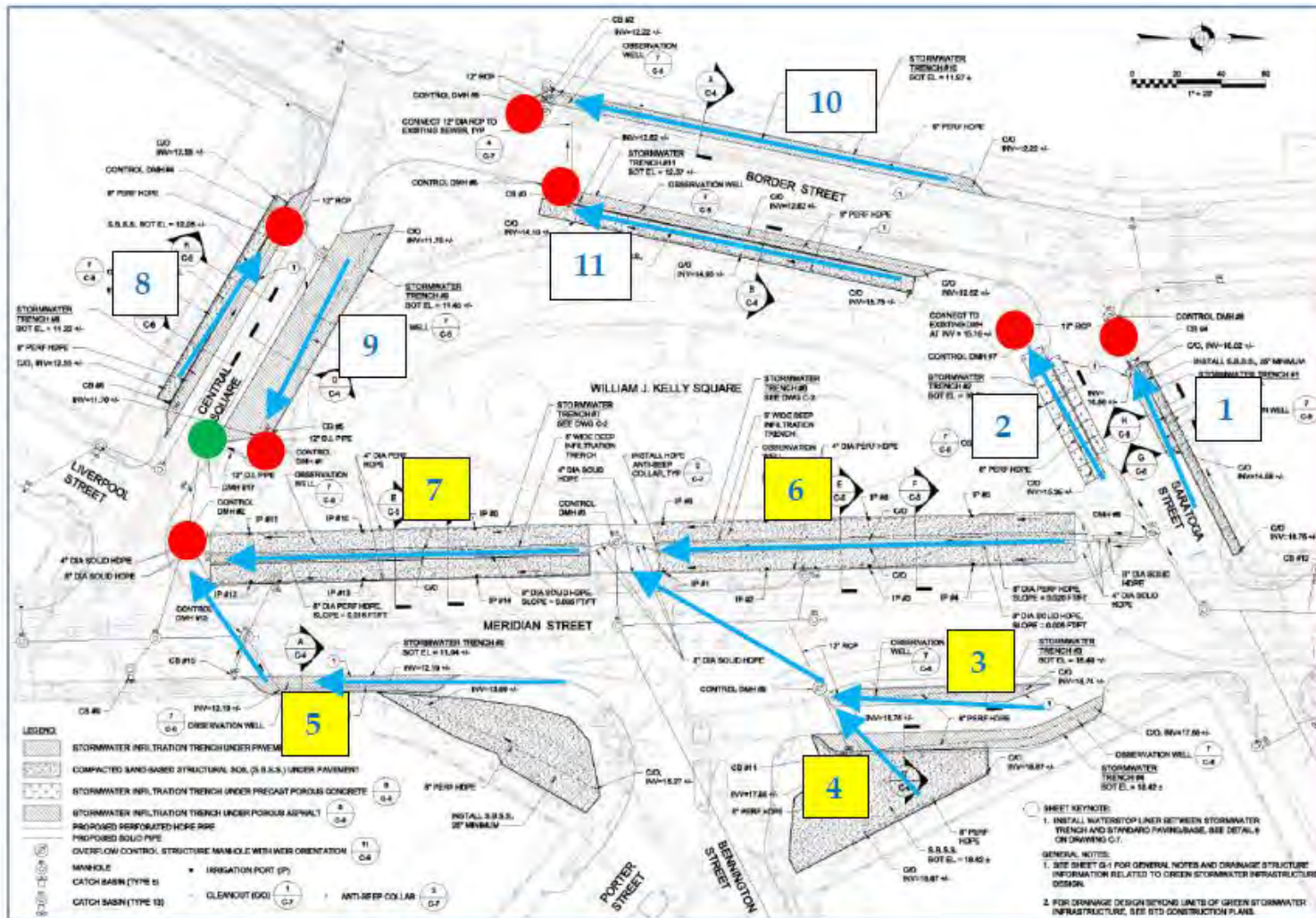


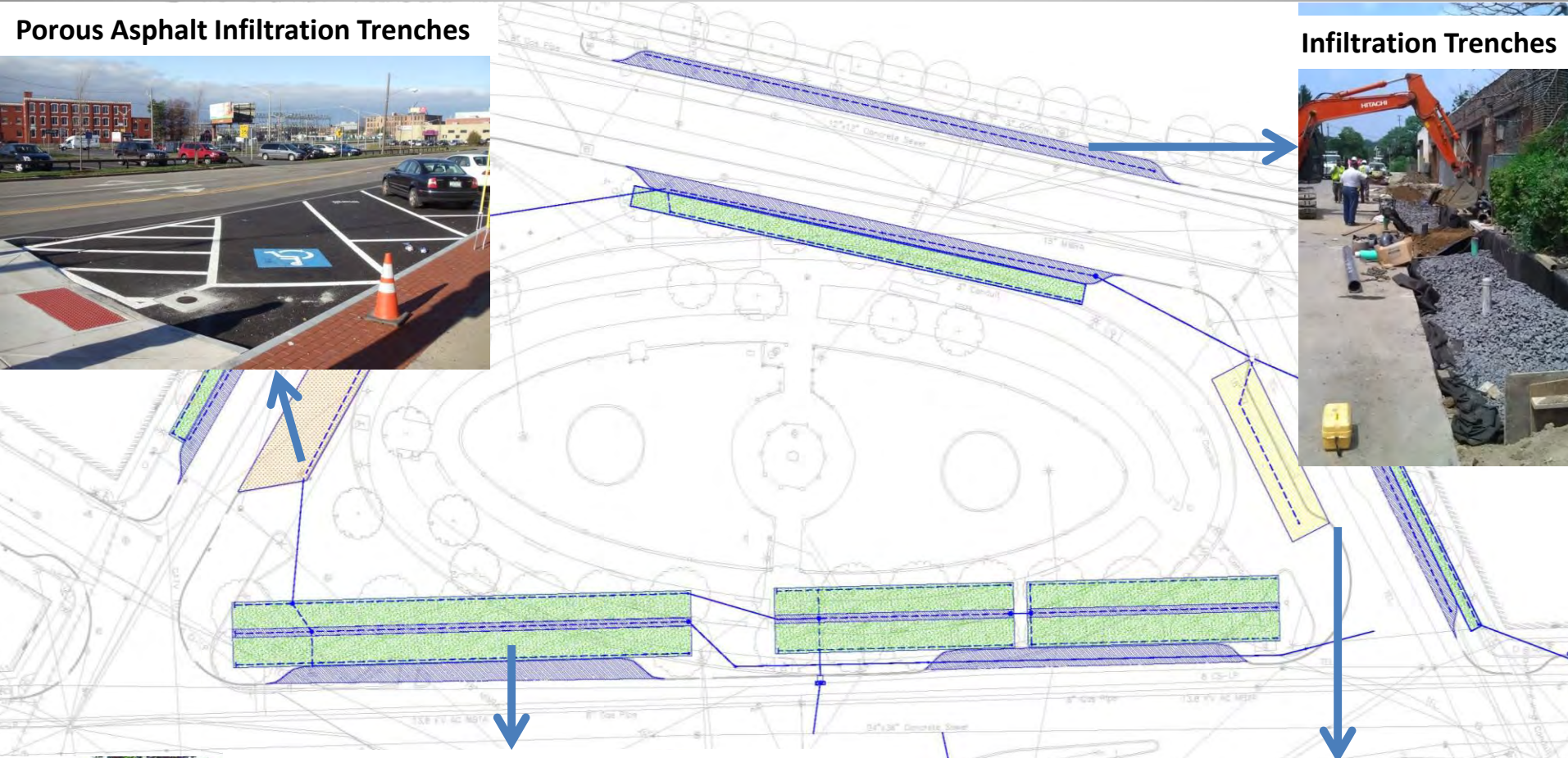
Figure 2 – Flow Schematic for Final Green Stormwater Infrastructure Design (red dots ● represent ultimate overflow points to storm drains; the green dot ● represents the anticipated flow meter location; numbers represent the stormwater trench systems; yellow numbers 7 represent the five trenches that are hydraulically connected)

Proposed Green Stormwater Infrastructure Plan for Central Square

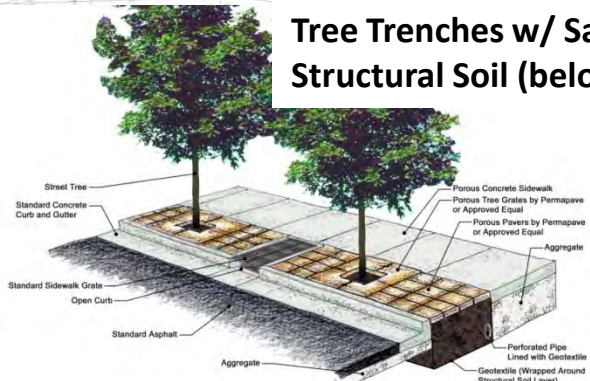
Porous Asphalt Infiltration Trenches



Infiltration Trenches



Tree Trenches w/ Sand-based Structural Soil (below Porous Pavers)



Porous Concrete Infiltration Trench





Figure 6. Audubon Circle Project Location at Intersection of Beacon Street and Park Drive

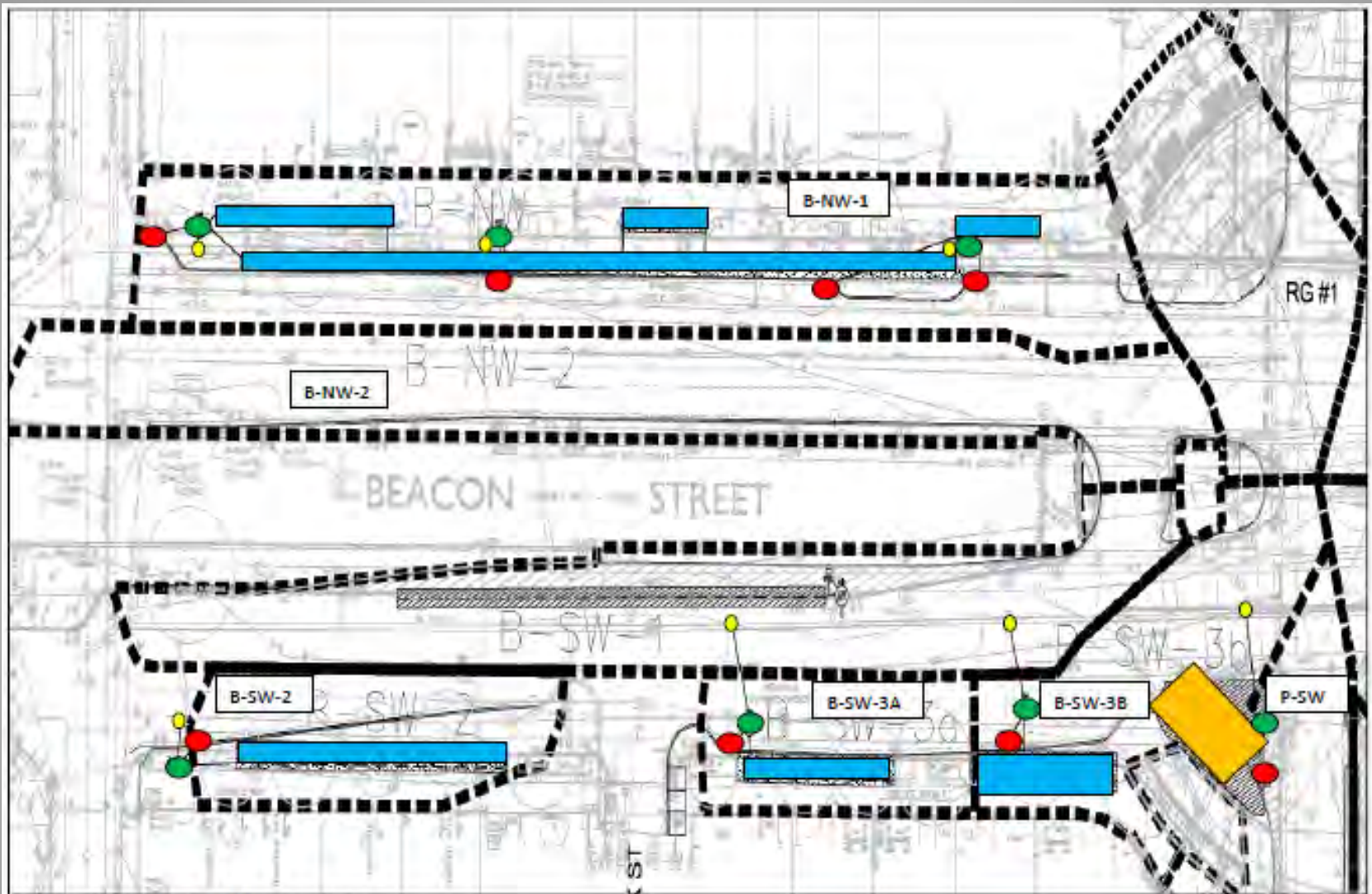


Figure 1 – Western Portion of Audubon Circle

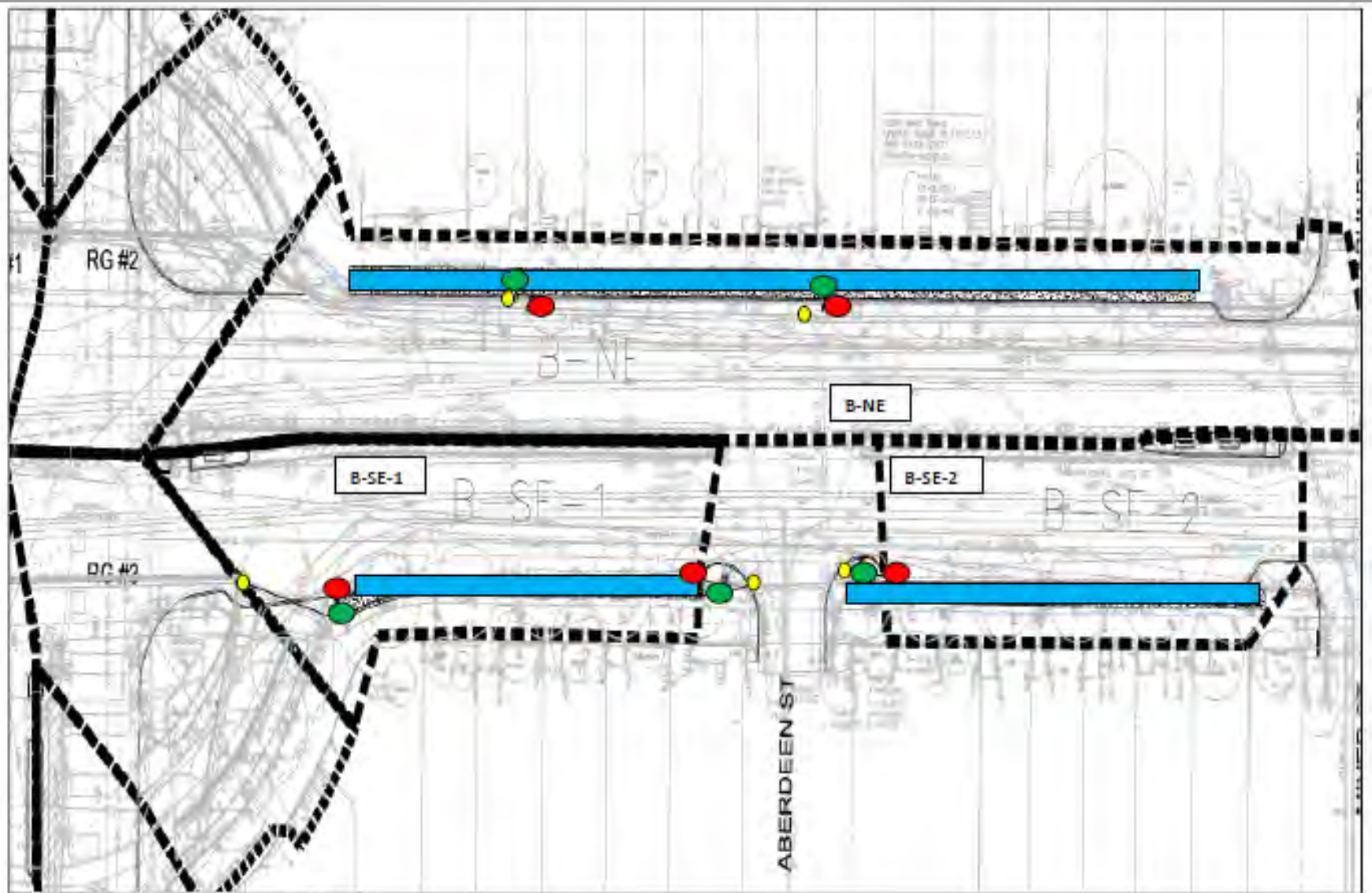


Figure 2 – Eastern Portion of Audubon Circle

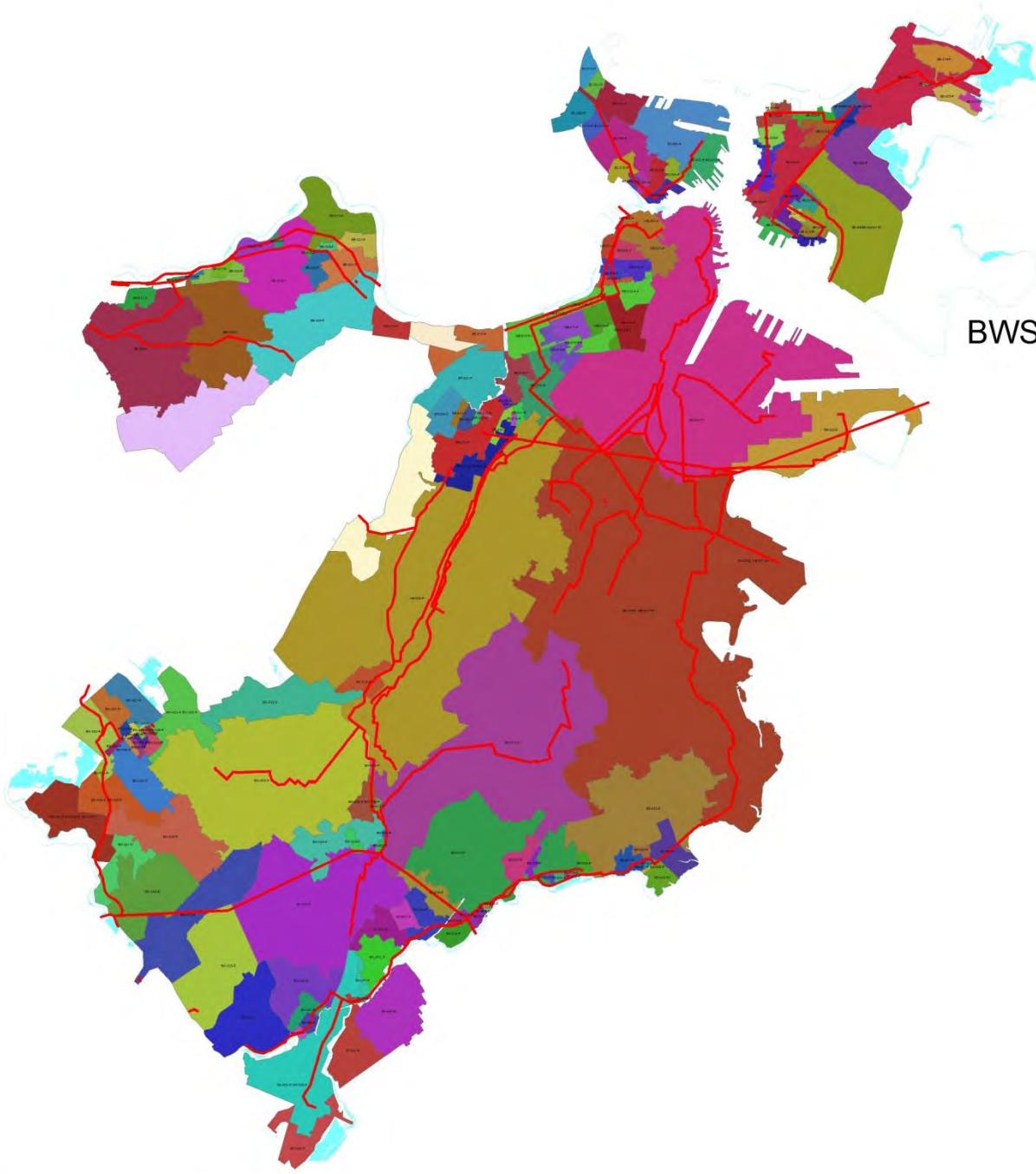
BMPs in City

BMP	#		BMP	#
Bio Filter Strips	1		Leaching Basins	327
Bio Swales	10		Multiple	9
Cultec Chambers	588		Perforated Pipe	389
Detention Ponds	23		Rain Garden	10
Dry wells	1,162		Stormtech Chambers	41
Injection wells	3		Tank Injection Wells	3
			Total	2,566

Began tracking in 1999

I/I Master Plan

- DEP Regulations
- Past Studies
- New Plan
 - Summarizes what has been done
 - Create new baseline
 - Plan for going forward



BWSC P-Connections Tributary Areas and Interceptors

Questions?