

I-90 Allston Interchange: A Framework for Place-making

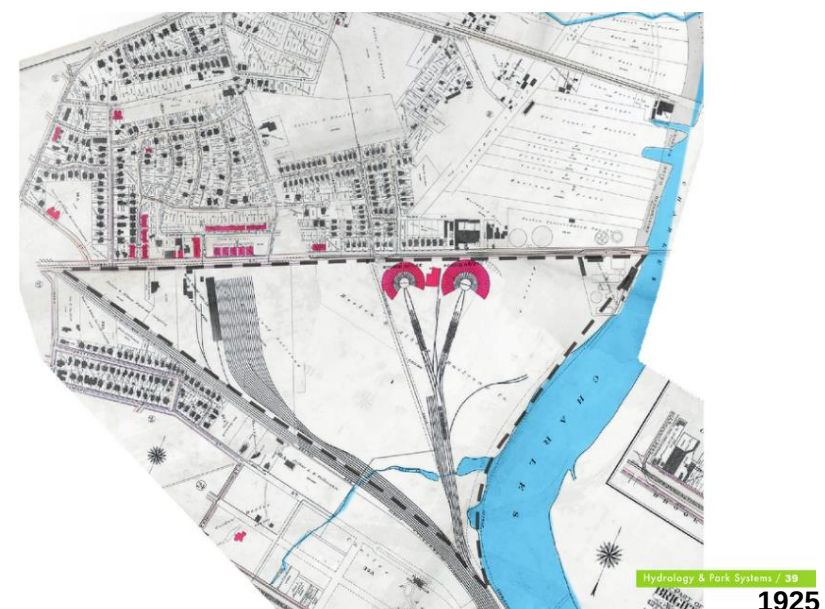
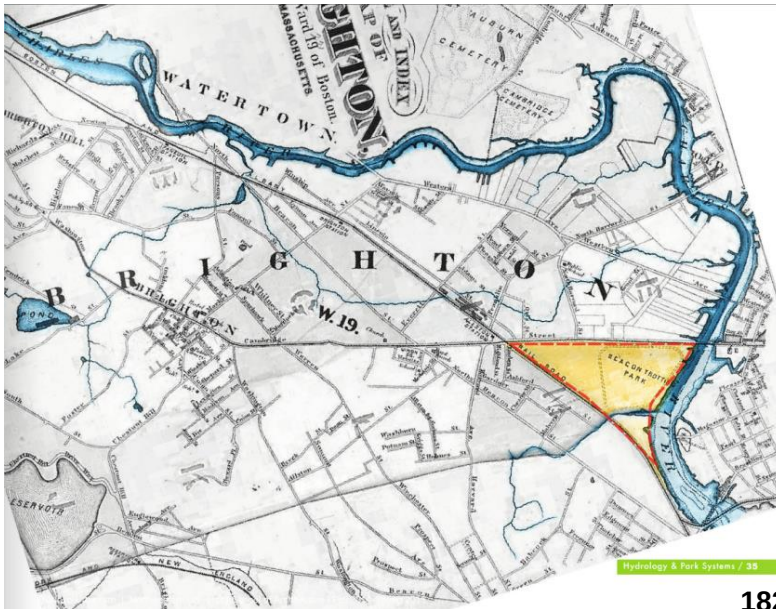
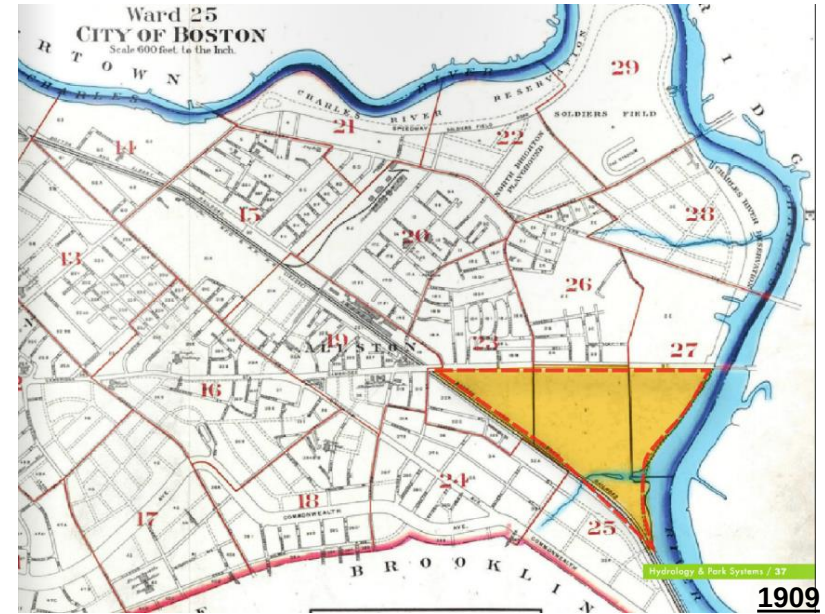


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I-90 Task Force
12/17/2015



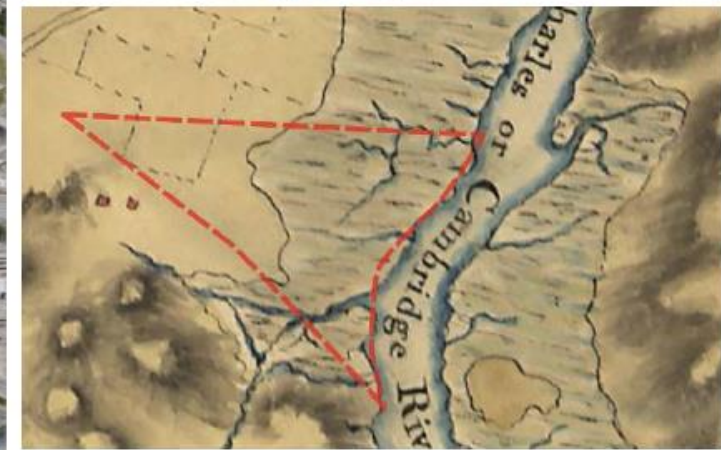
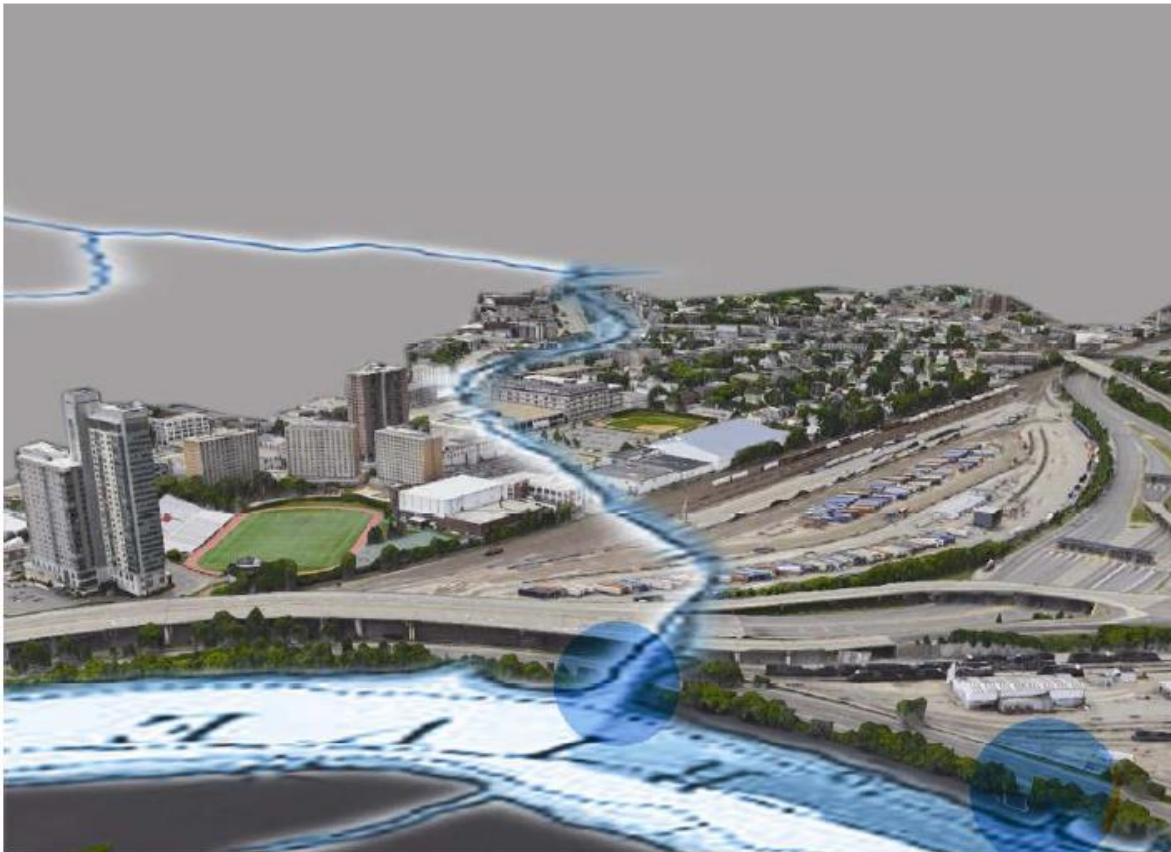
Charles River Watershed Association

Historical Context: Land and Water Interface

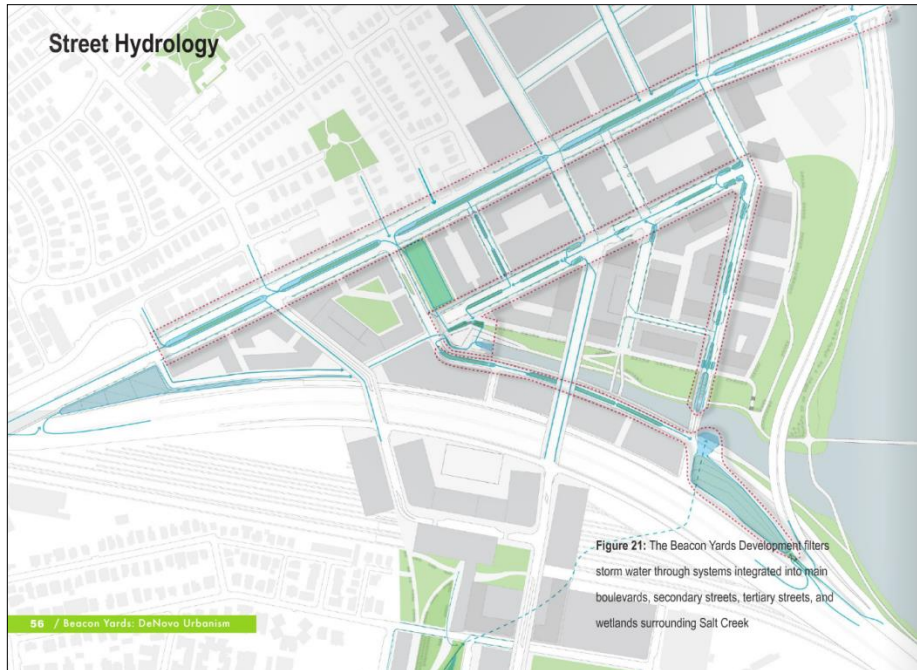


A Vision Based on the History of Land and Water

Nature of Opportunity: The History of Salt Creek



A Vision Based on Current/ Future Context & Opportunity



Source: School of Architecture, Northeastern University

The Allston Esplanade: Other/Alternate Visions

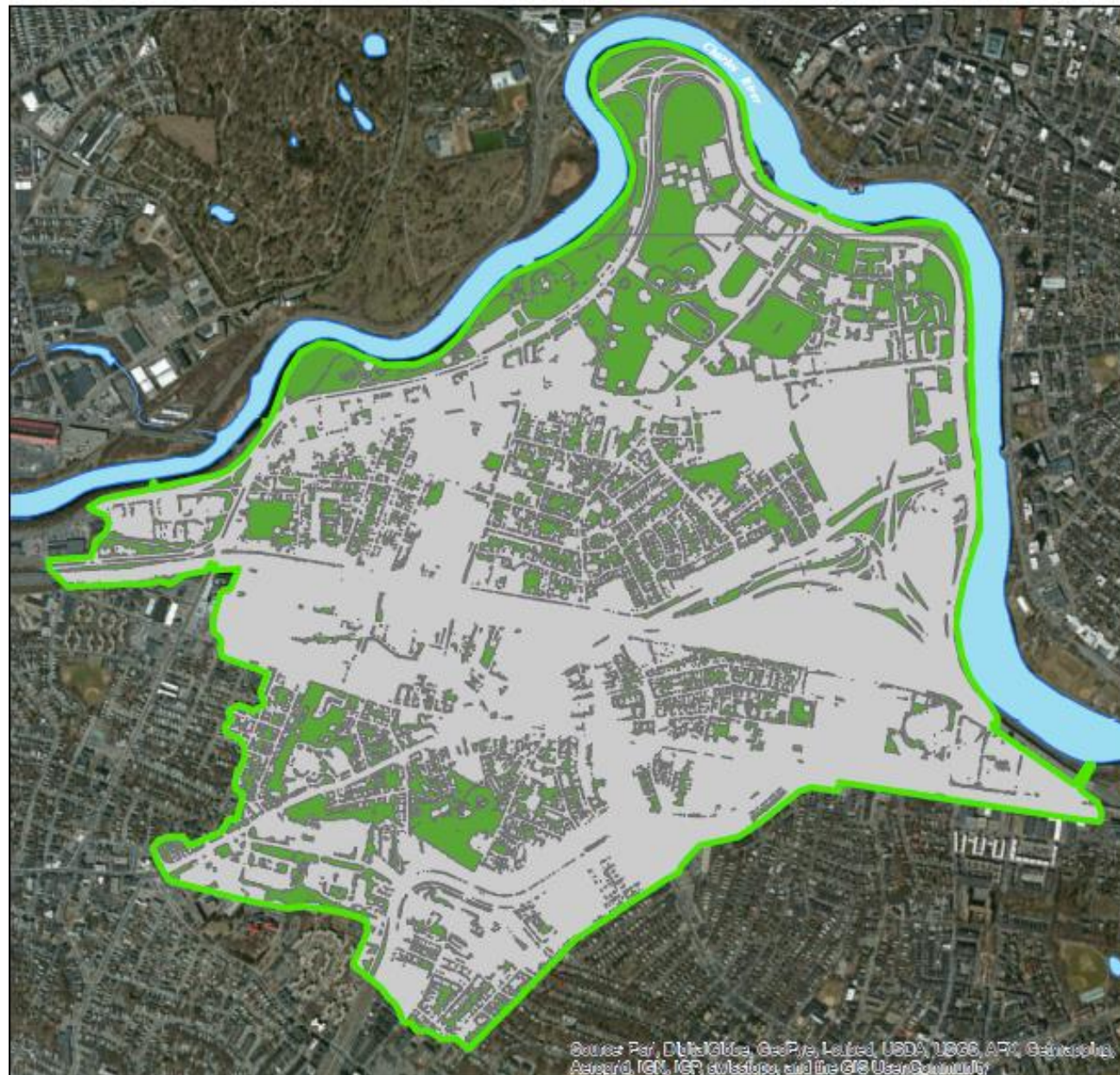


Source: Beacon Yards Urban Design Workshop,
Krieger/ Mountjoy Team BSA 2014



Source: New Allston Esplanade
Study, Solomon Foundation

The Existing Infrastructure Reality



Study Area
Impervious Cover



Figure H

Legend

-  Allston Study Area
- Impervious Cover**
 -  Pervious
 -  Impervious



0 350 700
Feet

Data Sources: MassGIS, CRWA

Source: Par, DigitalGlobe, GeoEye, Earthstar (USDA), USDA, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

Impacts of Flooding / Stormwater on our Rivers

- Water quality
- Sediments
- Floods and low flows
- Groundwater
- Ecosystem and habitat
- Algal blooms



Underground Tributaries Flowing into the Charles

Study Area Subwatersheds and Culverted Streams



Figure A

Legend

-  Culverted Streams
-  Allston Study Area
-  Surface Waters

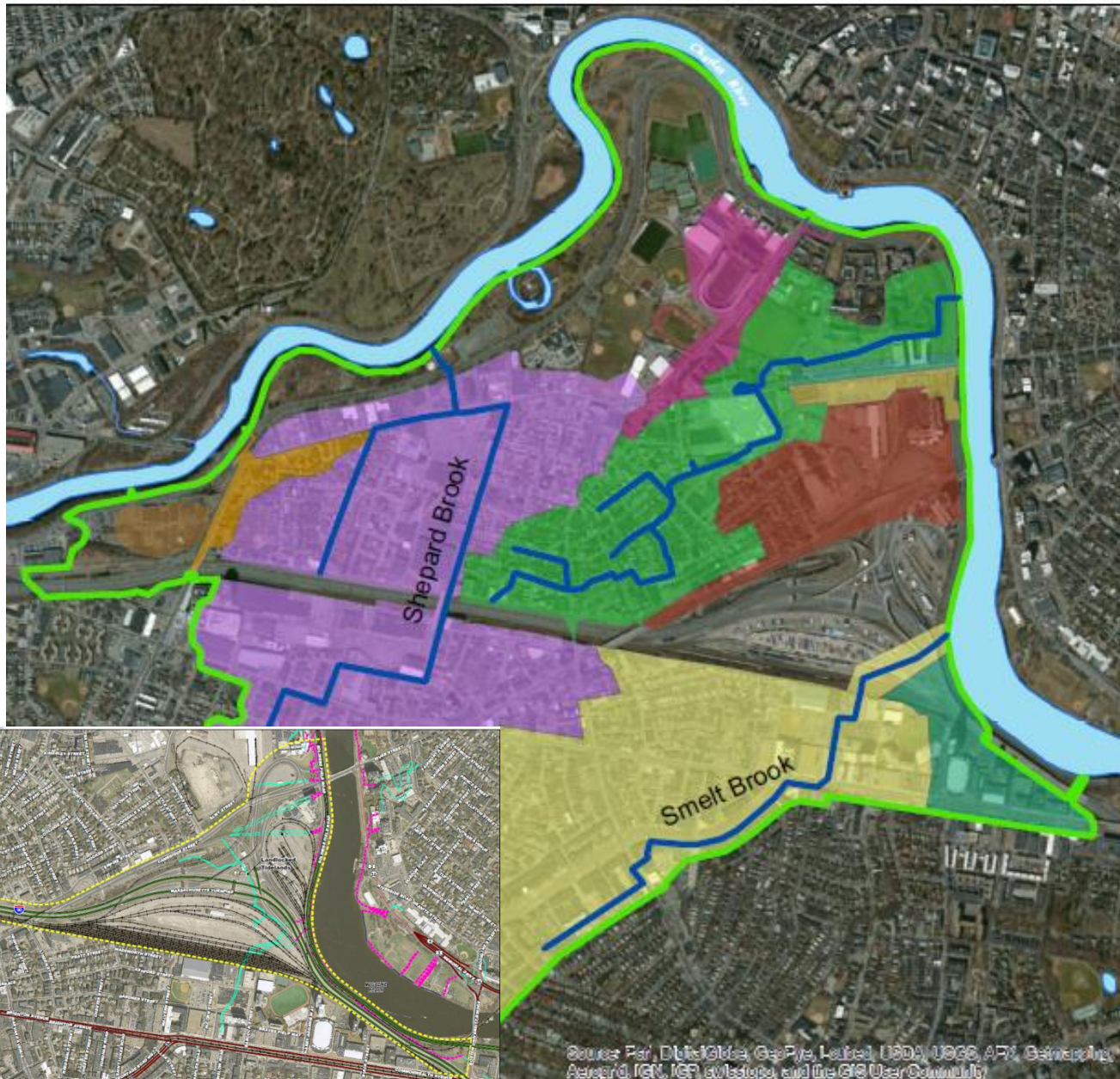
Subwatersheds

-  DO001
-  DO006
-  DO034
-  DO035
-  DO037
-  DO038
-  DO040
-  DO150



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Feet

Data Sources: MassGIS, CRWA

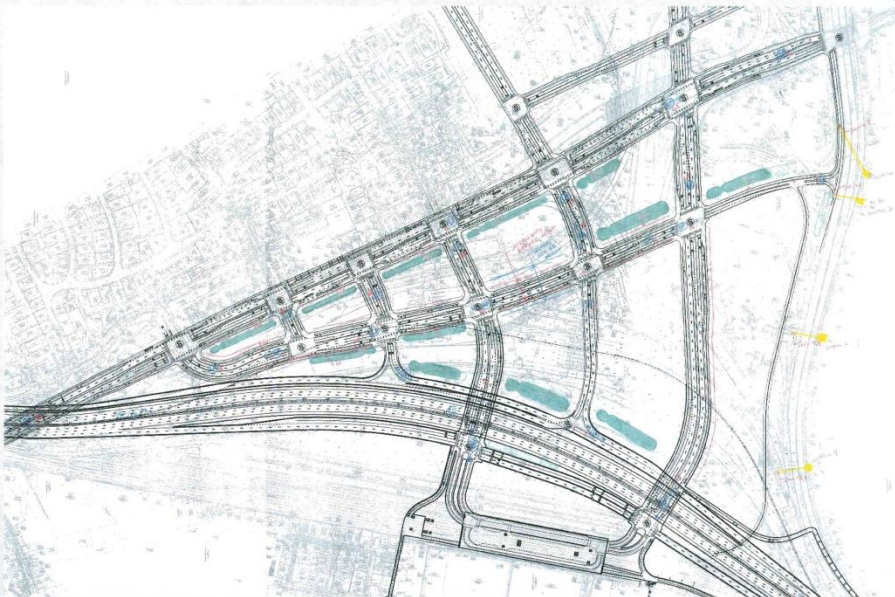


Existing and Proposed Drainage Approach for I-90

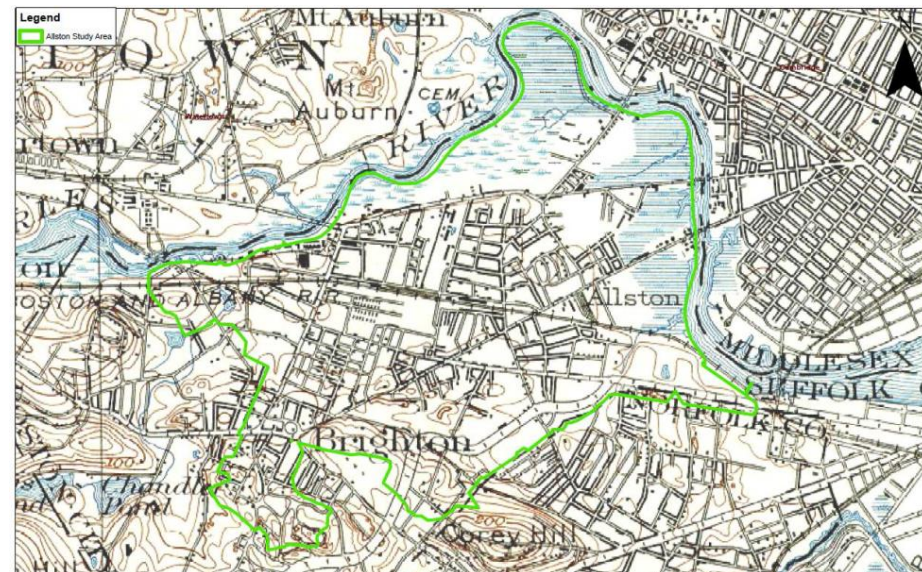
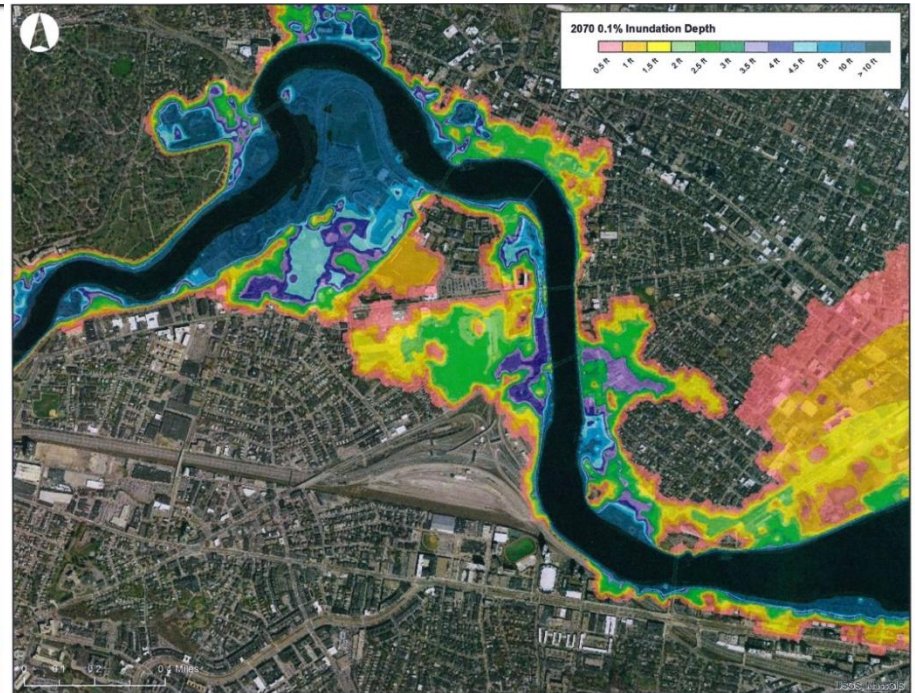
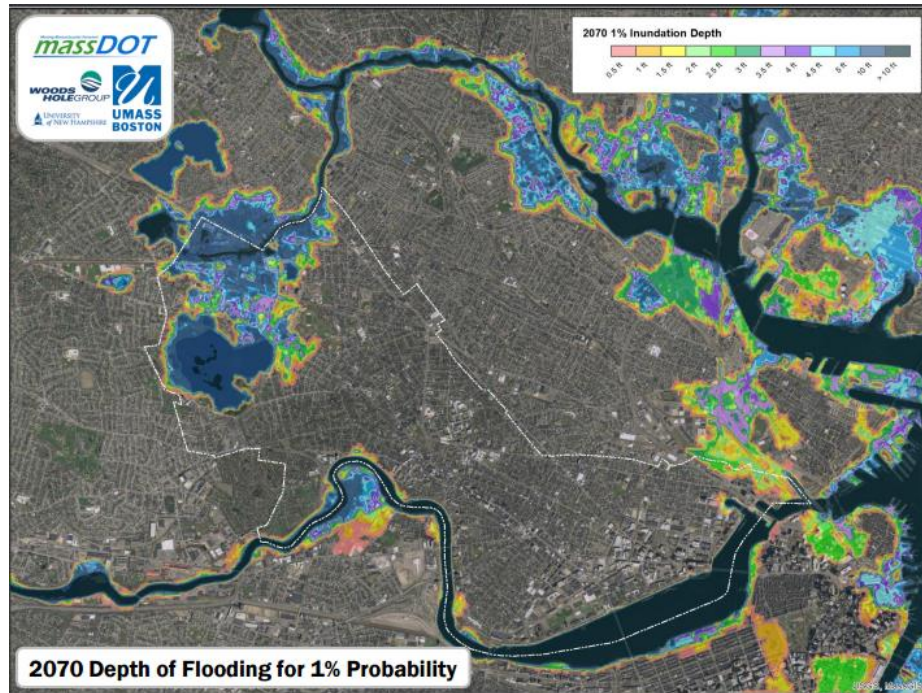
Existing Watershed Map



Proposed Localized Infiltration Basins



Future Climate Change Scenarios for North Allston/ I-90



Standard Urban Development

- Pave
- Pipe
- Pump



Standard Urban Problems

- Floods
- Water table changes
- Degraded rivers and streams
- Hot, noisy urban canyons



CRWA's Blue Cities Initiative

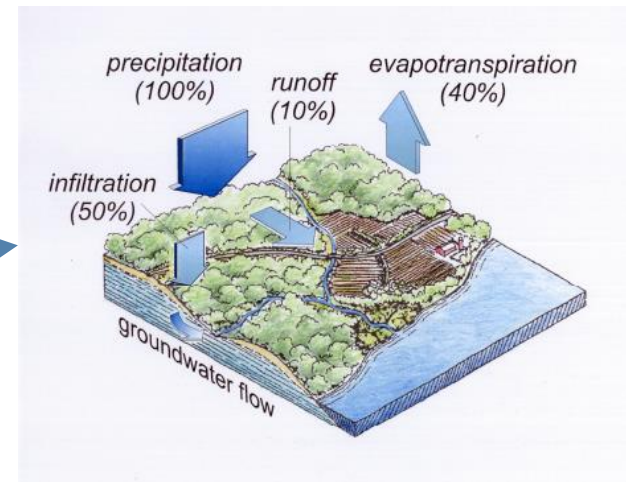
Blue Cities is a water-oriented approach to urban development and redevelopment that promote designs for the built environment that engages with every stage of the water cycle. Going beyond “green” building, “blue cities” embraces green infrastructure design with the aim of restoring the natural water cycle in the built environment



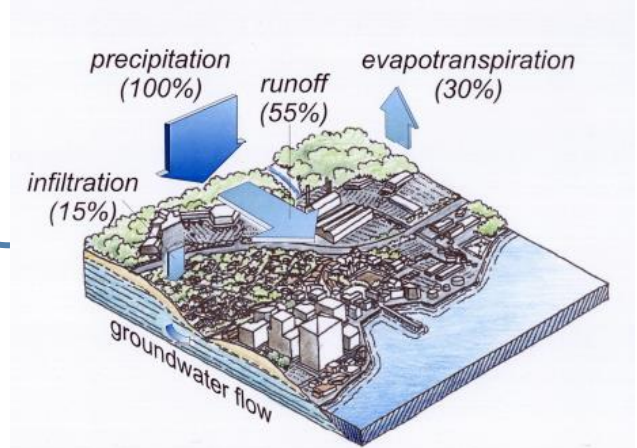
CRWA's Blue Cities Initiative

- Water centric planning and urban design
- Mimic natural water cycle and restore hydrologic integrity
- Retrofit sites to incorporate “green infrastructure”
- Build on links to open space, public health and public realm needs

Pre-development



Post-development



Public realm/neighborhood scale approaches

- Green streets and Greenways
- Integrate stormwater management with existing open space
- Stream daylighting
- Regional retention and detention systems

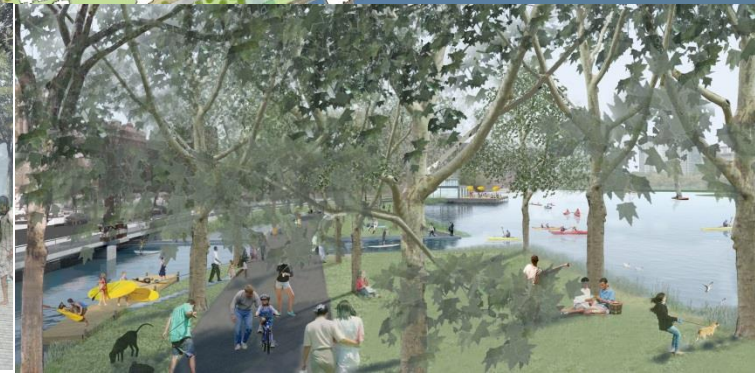


Large site scale approaches

- Parking lot retrofits
- Courtyard retrofits
- Permeable pavement
- Constructed wetlands and other retention and detention systems



A Vision for Resilient Infrastructure and Place-making



I-90 Allston Interchange: Framework for Place-making

CRWA's priorities for I-90 Interchange Project

- Enhanced parklands and access to the River
- Stormwater management via blue-greenways (linear open space corridors) and green streets
- Planning / design for climate change resilience
- Place-making with the goal of environmental restoration, improving quality of life for the neighborhood and creating access to nature in a dense urban core

Comments?



For more information
Visit us at www.crwa.org