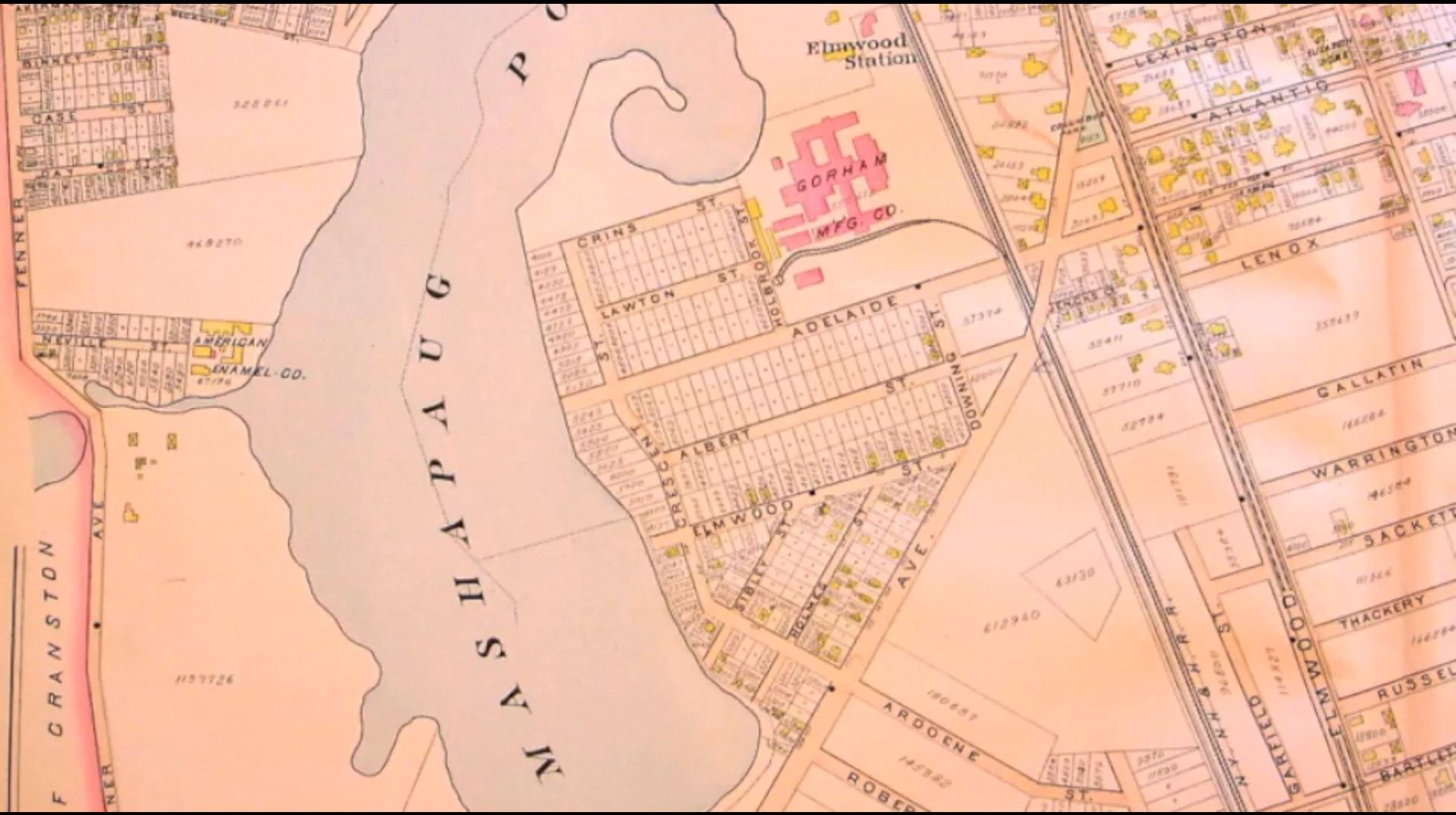


**A Brief Introduction to Some of the Social, Cultural
and Policy Issues Related to [what is now]
Providence's Huntington Industrial Park**



TENNER

F GRANSTON

MASSAPEQUA

Elmwood Station

GORHAM MFG. CO.

320261

468270

AMERICAN ENAMEL CO.

1139726

CRINS ST

LAWTON ST

ADELAIDE ST

ALBERT ST

ELMWOOD ST

SIBLEY ST

ARDOENE ST

ROBERT ST

LEXINGTON

ATLANTIC

LENOX

GALLATIN

WARRINGTON

SACKETT

THACKERY

RUSSELL

N.Y. & M.W. R.R. S.

GARFIELD

BARTLEY

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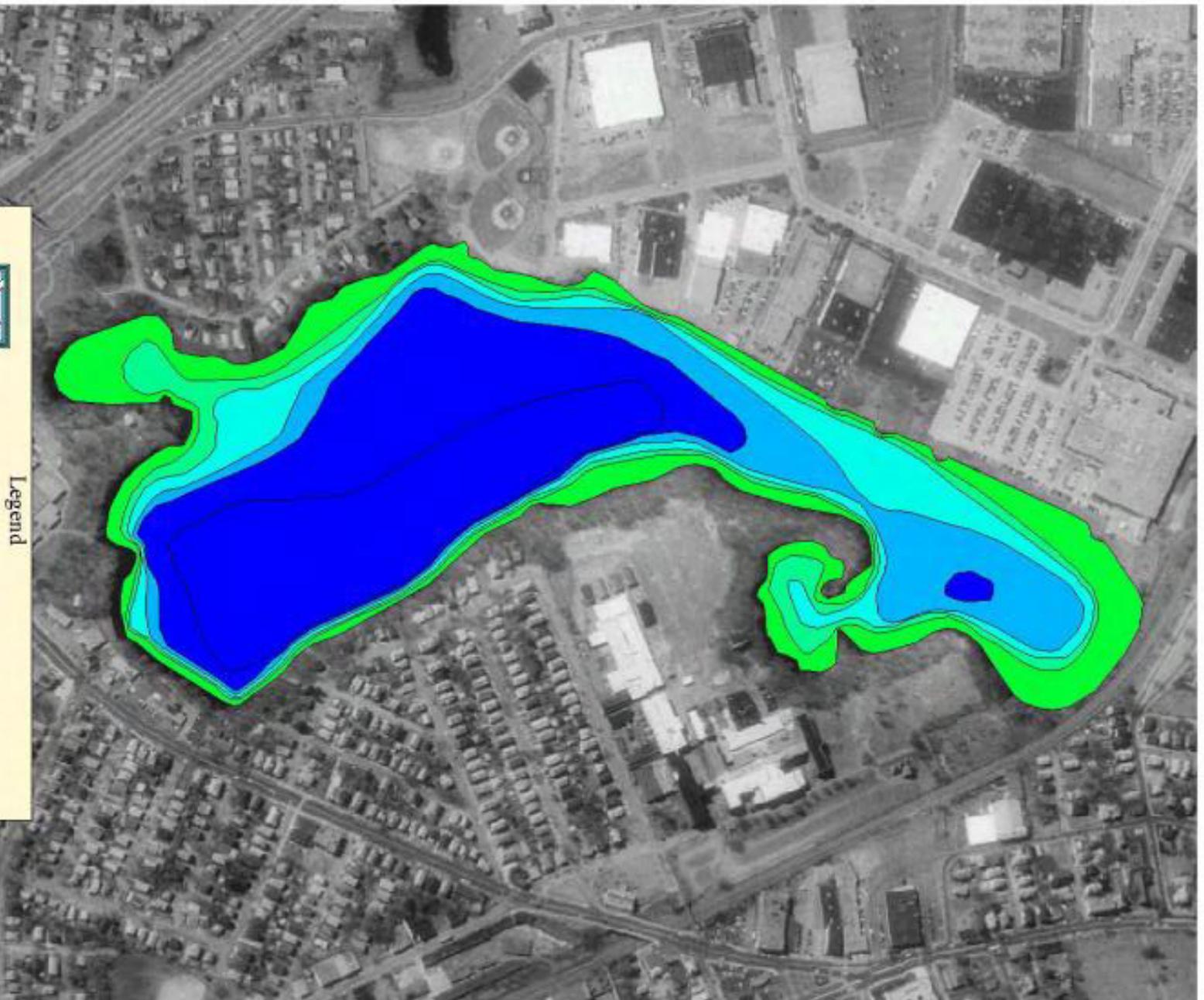
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The neighborhood has been called by many names—Across the Tracks, Over the Bridge, West Elmwood and the West End—and its story is tied to urban renewal, a changed geography and bitter displacement.

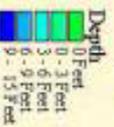




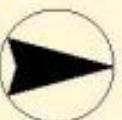


RI Department of
Environmental Management
Office of Water Resources

0.03 0 0.03 0.06 0.09 Miles

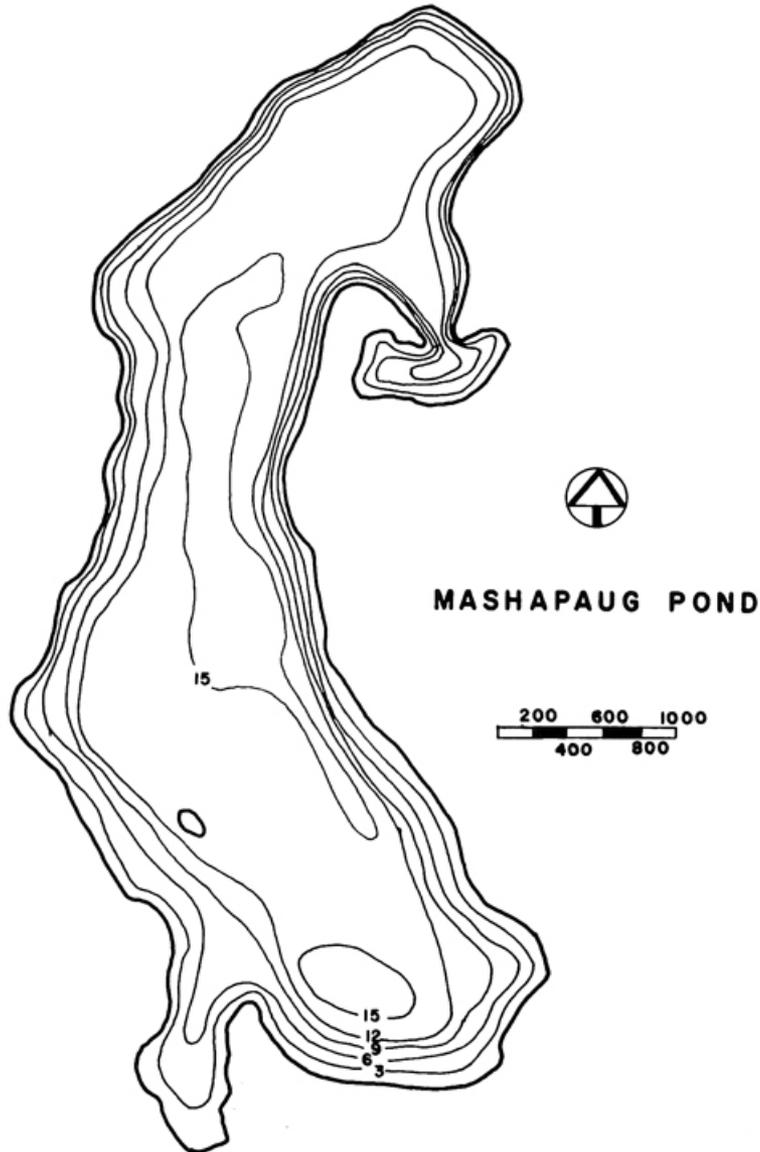


Legend



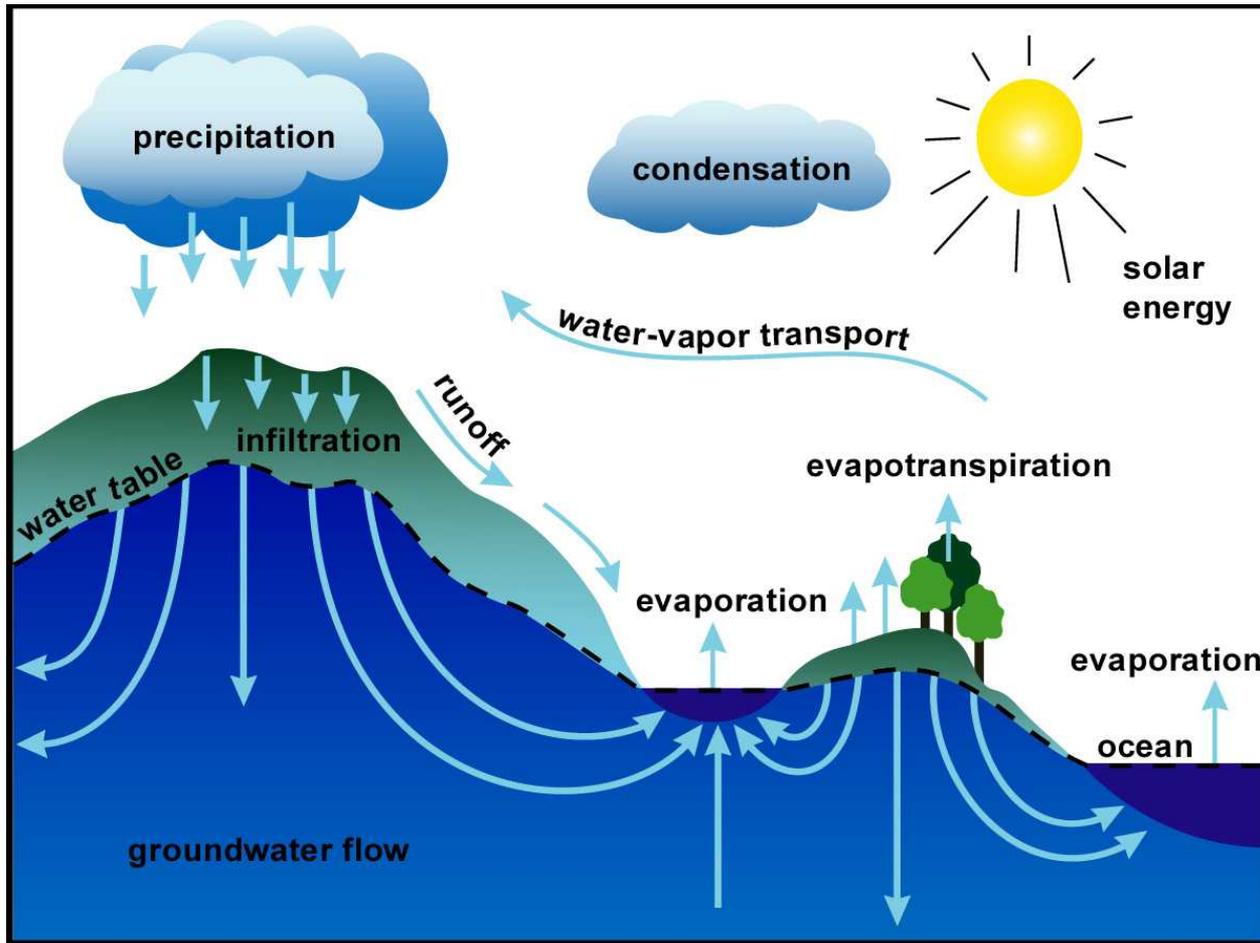
RI GIS

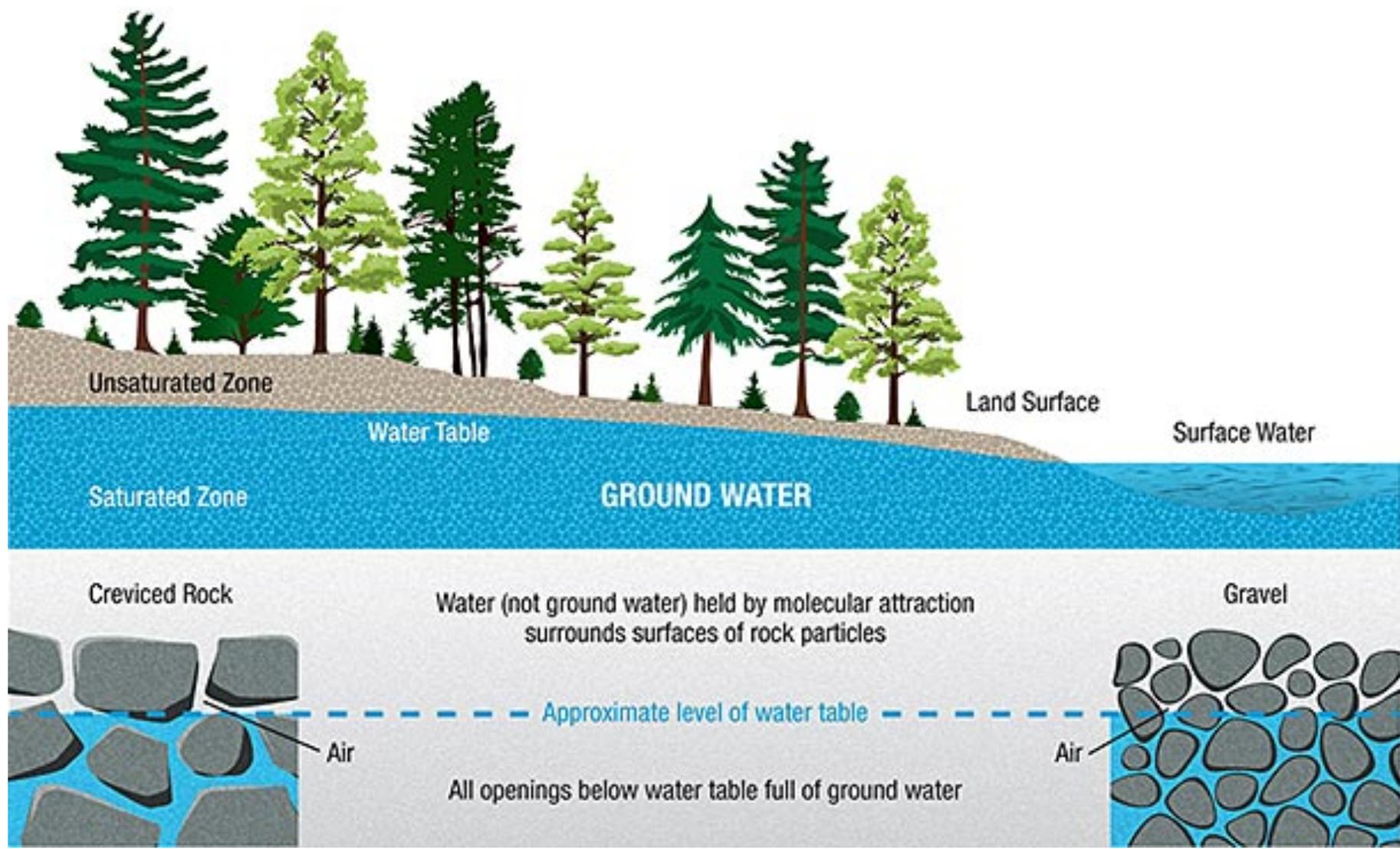
Let's Talk About **Stormwater**



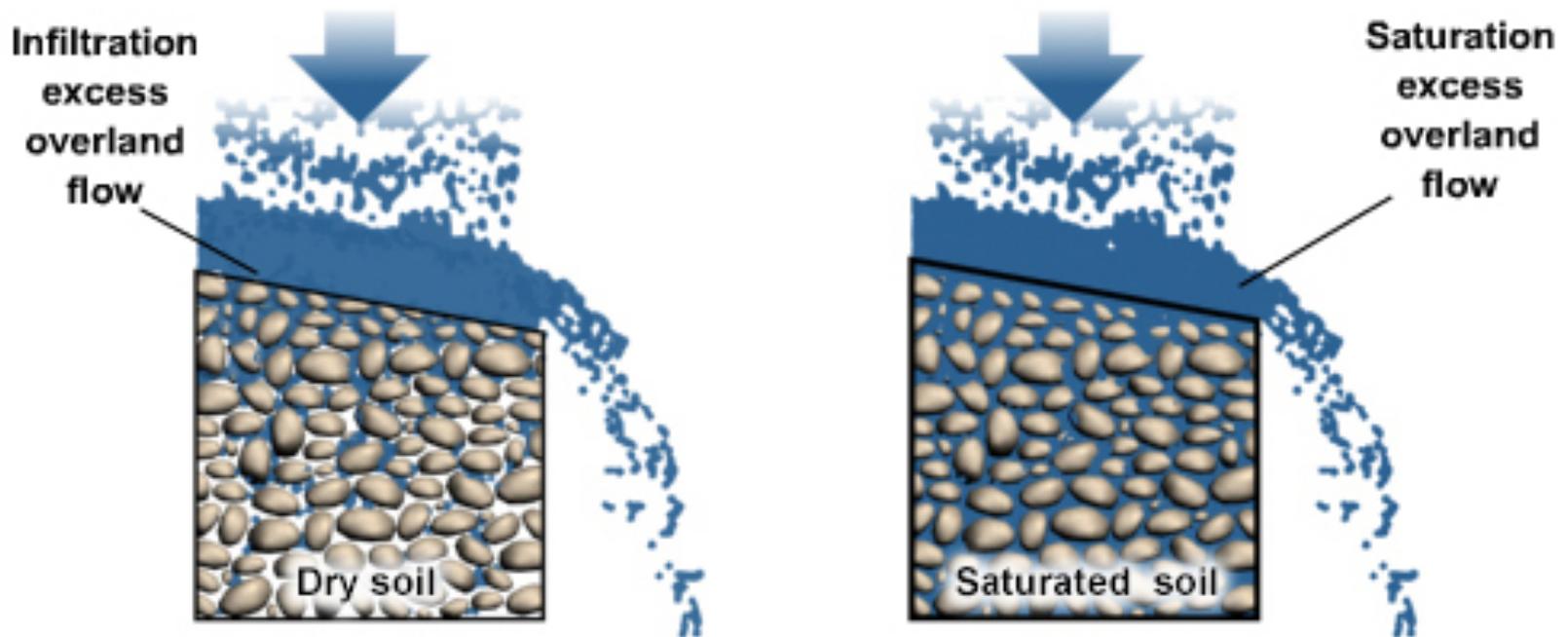
Urban Pond Procession
Artists' and Educators'
Workshop
January 25, 2014

Clouds → Mashapaug



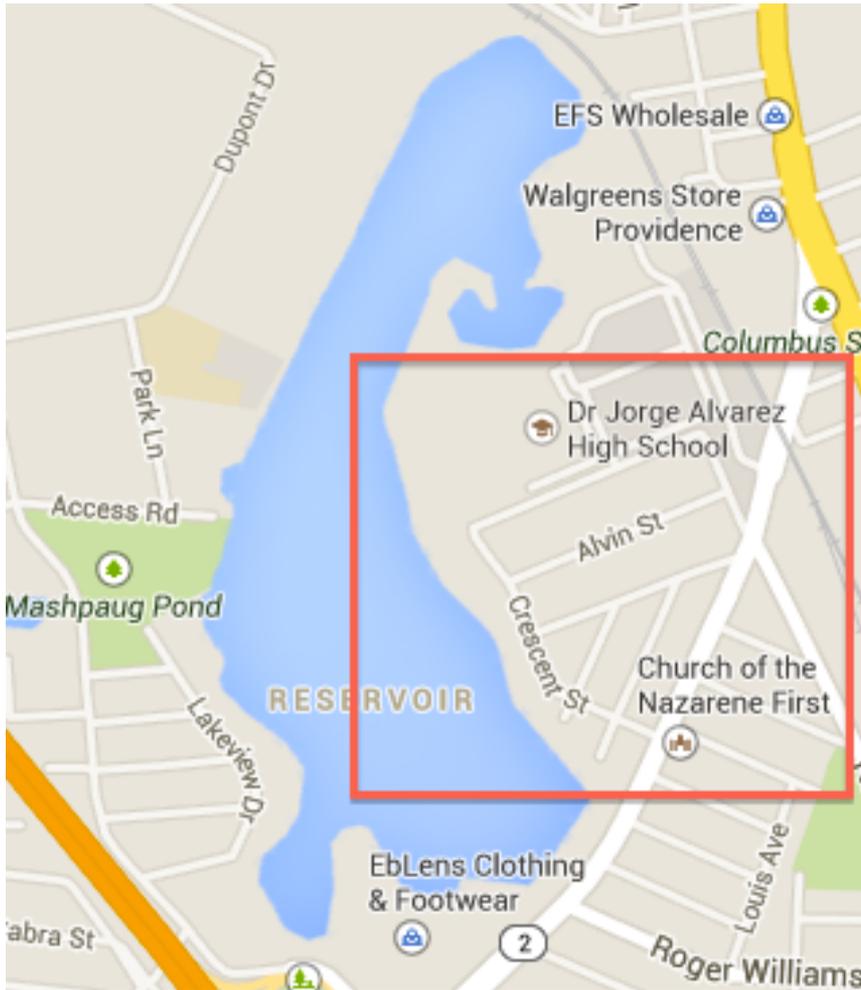


Types of surface runoff



Note: Enlarged soil particles are not drawn to scale.

©The COMET Program



City of Providence
Reservoir Triangle
Impervious Study Map
 derived from
 2013 Providence Planning plat map
 Google Images 2013
 Site assessment winter 2013

 not to scale
 Compiled by Groundwork Providence



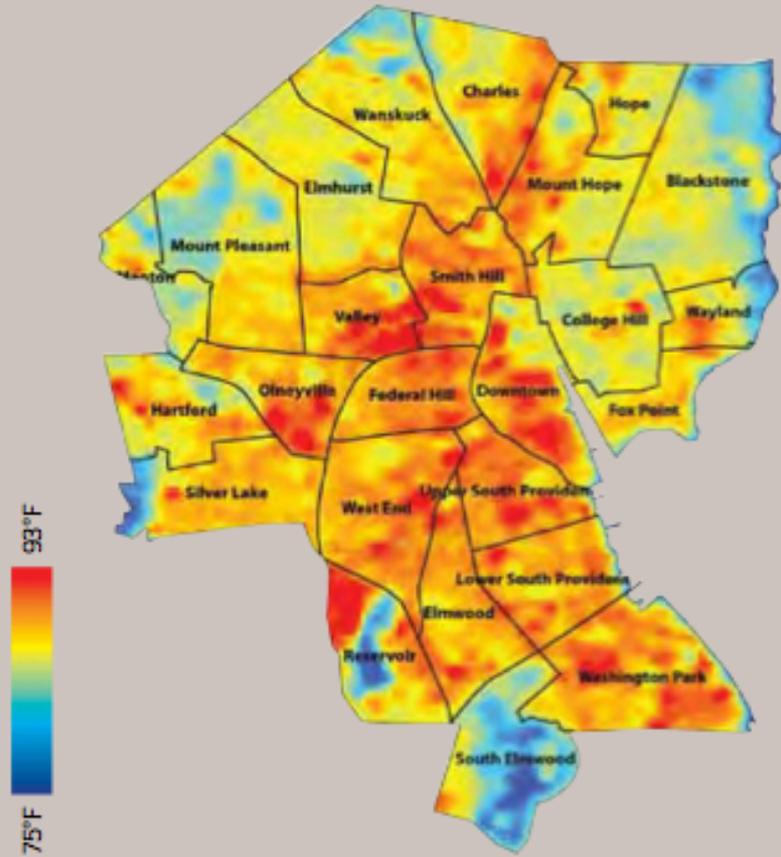
Impervious surfaces are marked in black on this map.





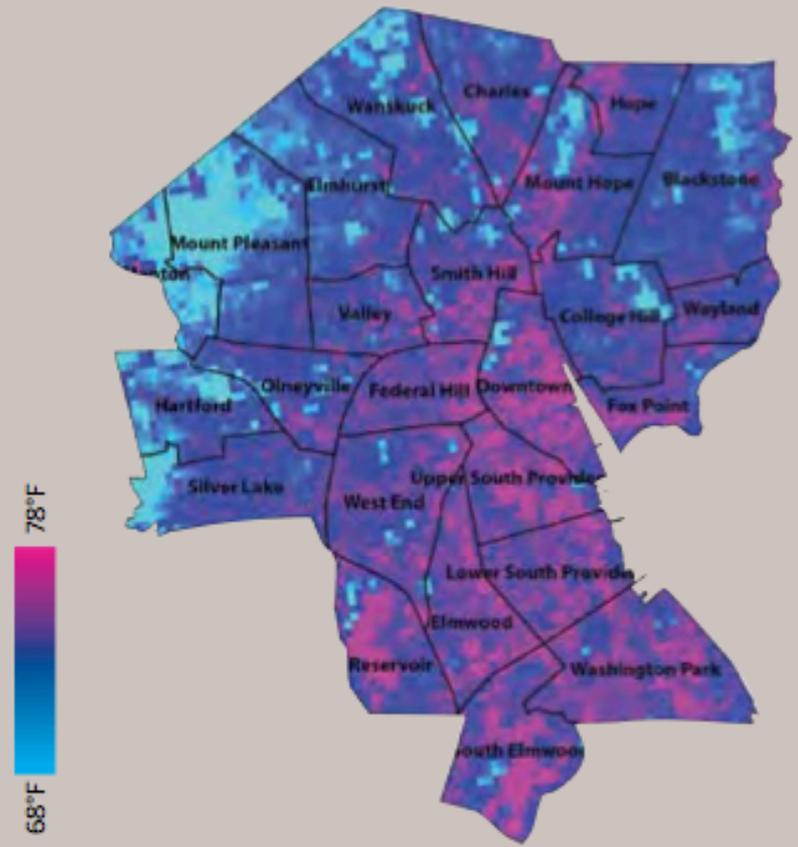
Daytime Surface Temperature

August 3, 2006, 11:20am



Nighttime Surface Temperature

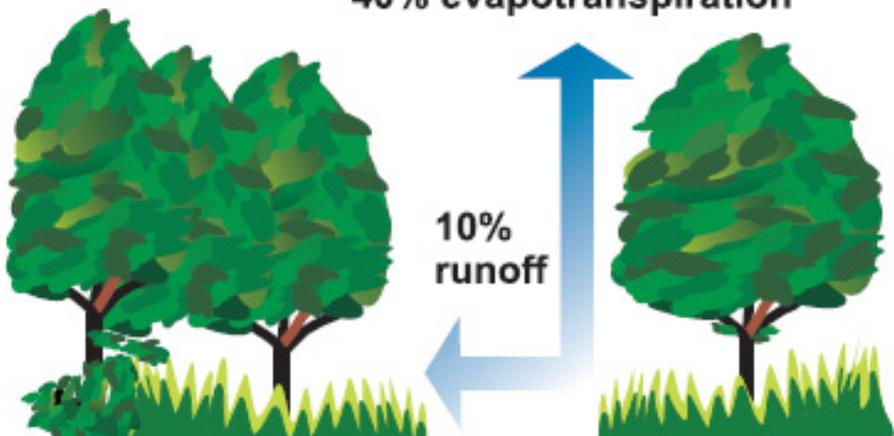
July 24, 2005, 10:49pm





Dupont Street in the Providence Industrial Park has a travel width of approximate 40 feet. Reducing the paving to between 28 and 32 feet would result in a significant runoff and pollutant load reduction

40% evapotranspiration



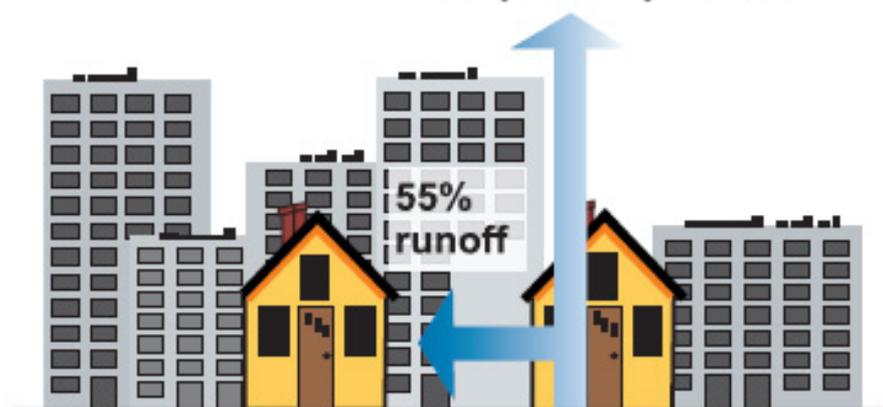
10% runoff

25% shallow infiltration

25% deep infiltration

Natural Ground Cover

30% evapotranspiration



55% runoff

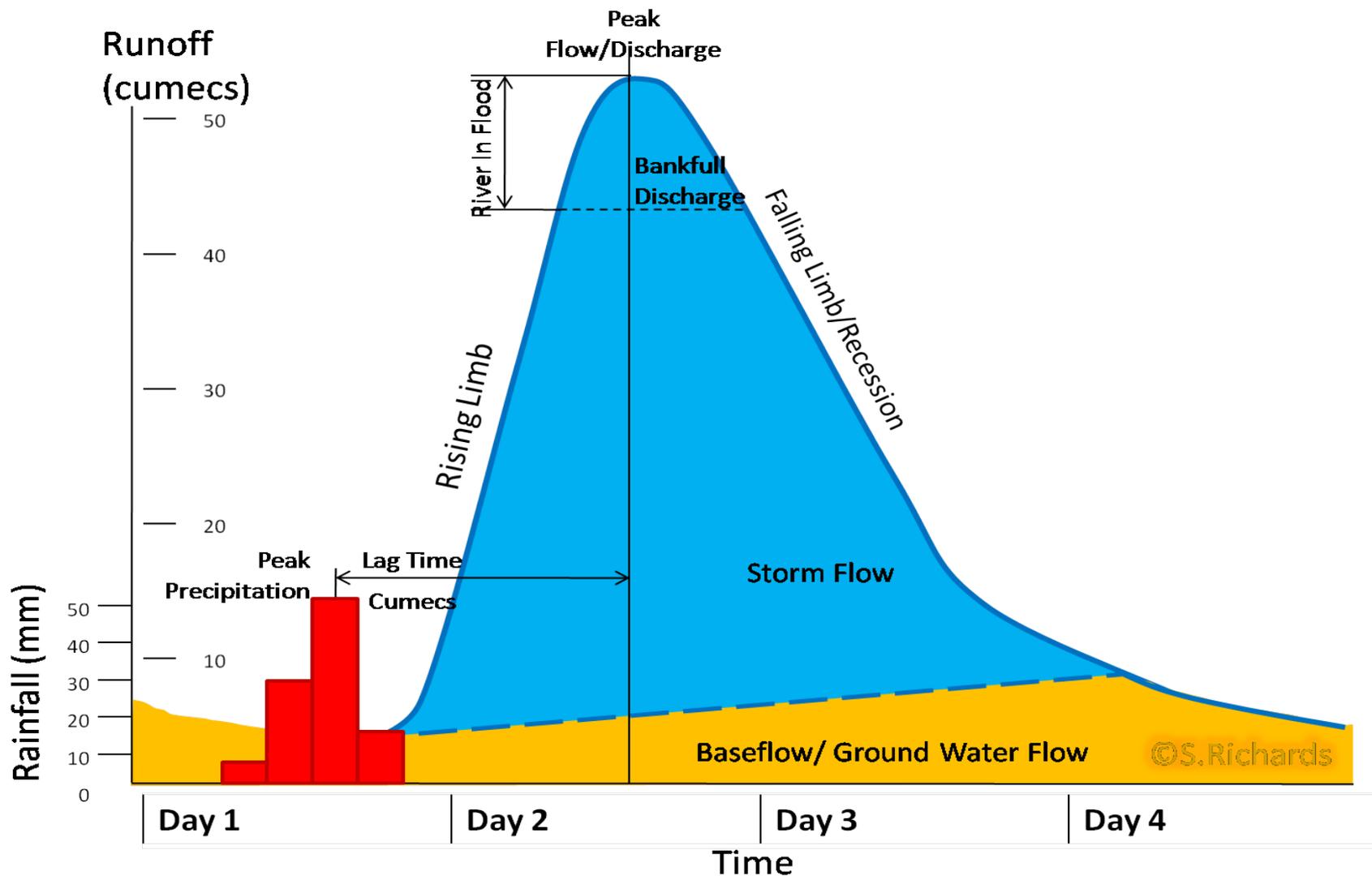
10% shallow infiltration

5% deep infiltration

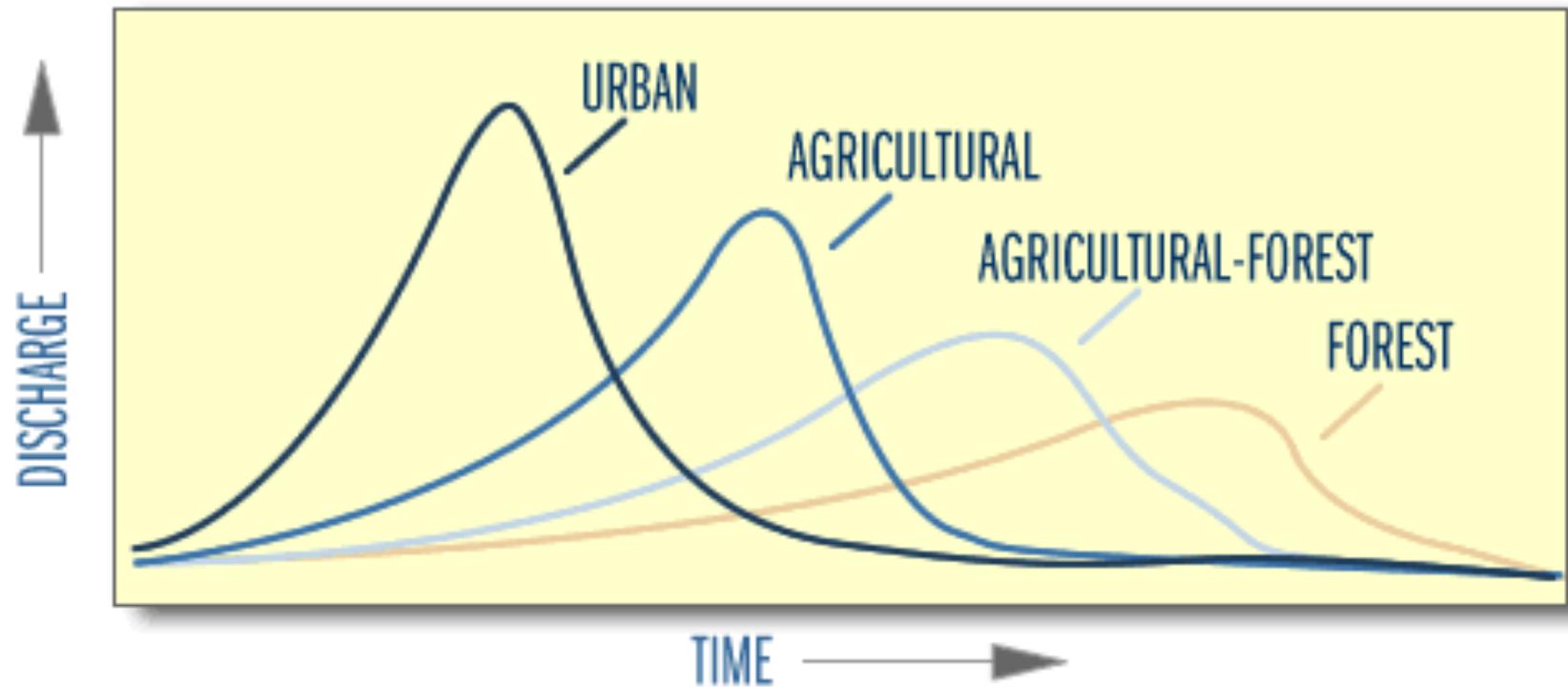
75%-100% Impervious Cover

Runoff might carry:

- Oil, grease and toxic chemicals from cars
- Pesticides and fertilizers
- Pet waste
- Road salts
- Heavy metals from cars and roof shingles
- Sediments
- Hot water



STORMWATER DISCHARGES FROM VARIOUS LAND COVERS

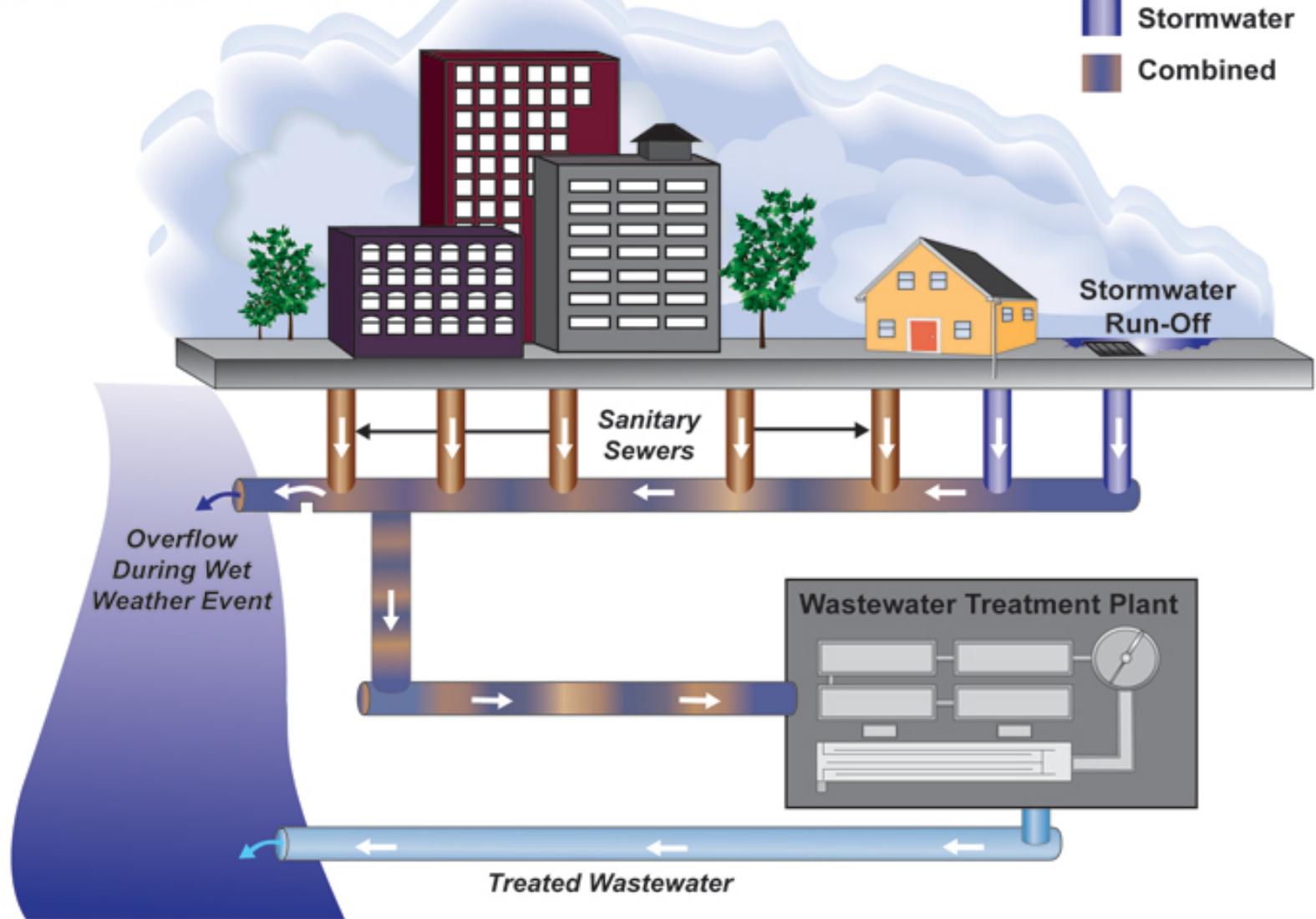


We need infrastructure changes



COMBINED SEWER SYSTEM

-  Sanitary
-  Stormwater
-  Combined



Green infrastructure

Uses vegetation, soils and natural processes to soak up and store stormwater.

Planter boxes



Green roofs



Rain gardens



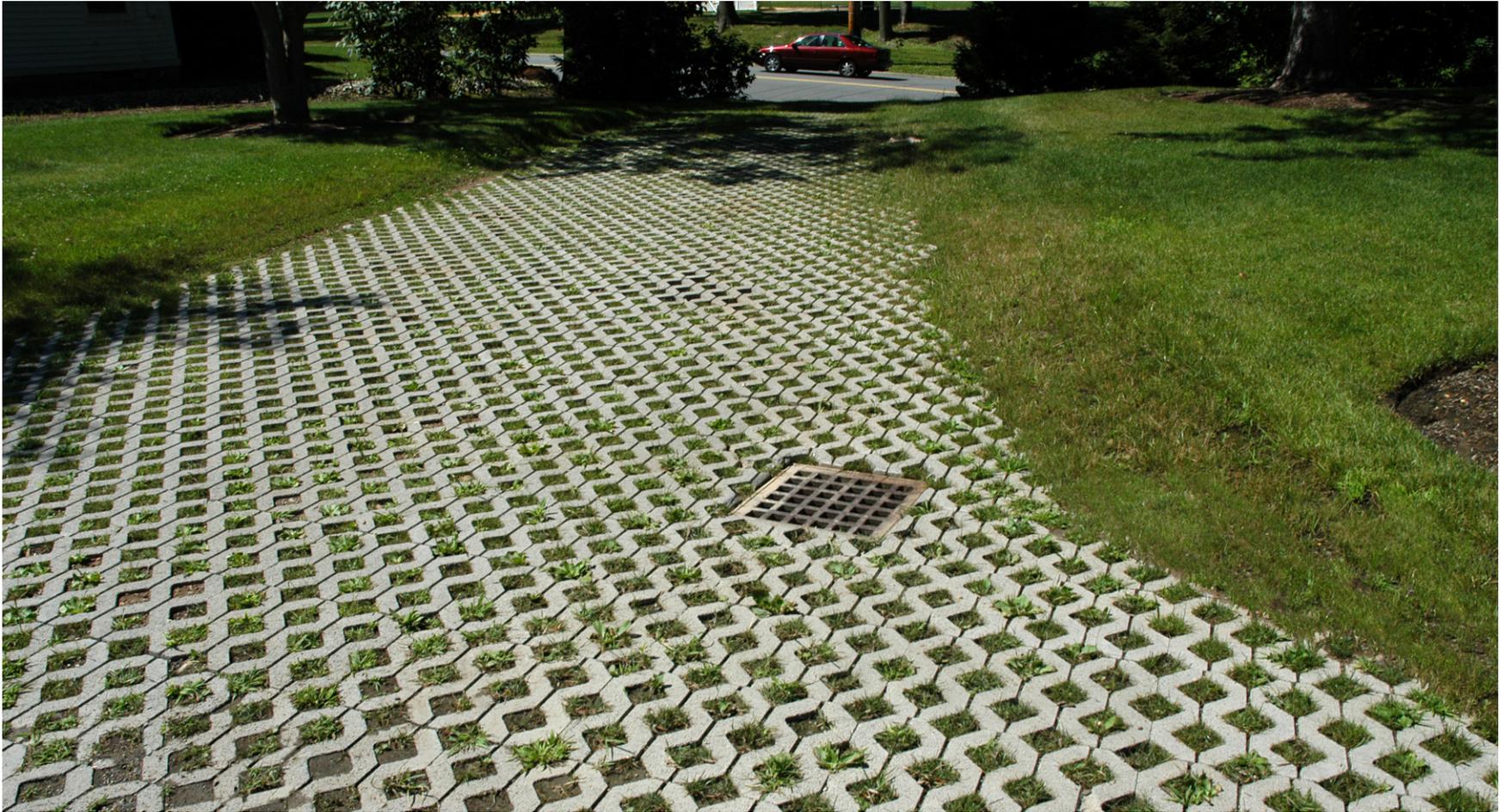
Rain barrels



Bioswales



Permeable pavement



Reservoir Triangle Geoblock





Stormwater flows over short grass and compacted soil quickly and can contribute to erosion and sediment problems.



Direct water so it may flow through vegetated areas. This can help to dissipate velocity, filter and infiltrate some storm water coming from downspouts.



Neighbors can work together to plan a volunteer-based tree planting. Entire blocks could be transformed while aiding stormwater mitigation through tree transpiration.



In areas with limited impervious space the right of way may pose an opportunity to slow, filter, and infiltrate some storm water.



Above ground planters can artificially create 'ground' when there is little available and still keep water away from sensitive foundations.



Flow through planters can accept some roof runoff and irrigate several species that can thrive in both wet and dry situations. Planters are made to spill over when the appropriate water level is reached.

Images from Environmental Justice League of RI and Groundwork Providence

Providence gets grant to reduce stormwater runoff

October 26, 2013 12:03 AM

BY RICHARD SALIT

JOURNAL STAFF WRITER

rsalit@providencejournal.com

McCarthy announced that Providence was among four cities chosen to share \$400,000 to devote to “green infrastructure” solutions to stormwater. The approach, she said, beautifies urban communities, creates jobs, curbs pollution and enhances resiliency to climate change.

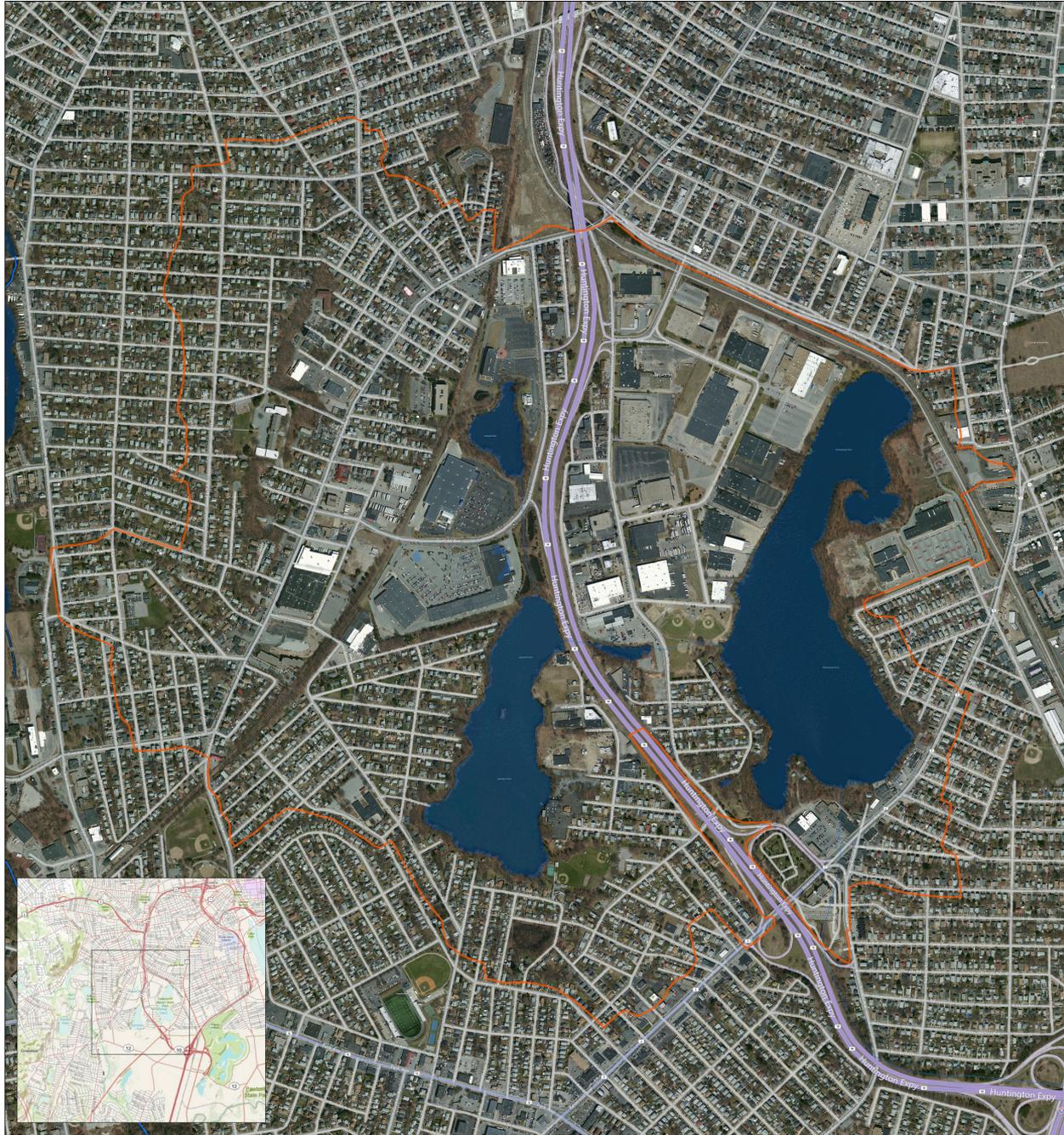
“Green infrastructure is a new way of doing business,” she said, adding that managing contaminated runoff is “one of the most significant challenges” facing the nation.

The \$75,000 will be used by the City of Providence to pay for public stormwater projects that can serve as models. No projects have been singled out, said Sheila Dormody, the city’s first sustainability coordinator.

Dormody said one likely target will be an area where stormwater issues are already being addressed — Mashapaug Pond and the system of ponds at Roger Williams Park. Other possibilities include city streets slated for improvements, including roundabout plans for Fountain Street, and on the East Side near the Seekonk River.

Roger Williams Park





Questions about this map?
 Paul Jordan
 RI Dept of Environmental Management
 401-222-3775 x4379
 paul.jordan@dem.ri.gov

0 1,000 2,000 Feet

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Watershed
 Of
 Mashapaug Pond

