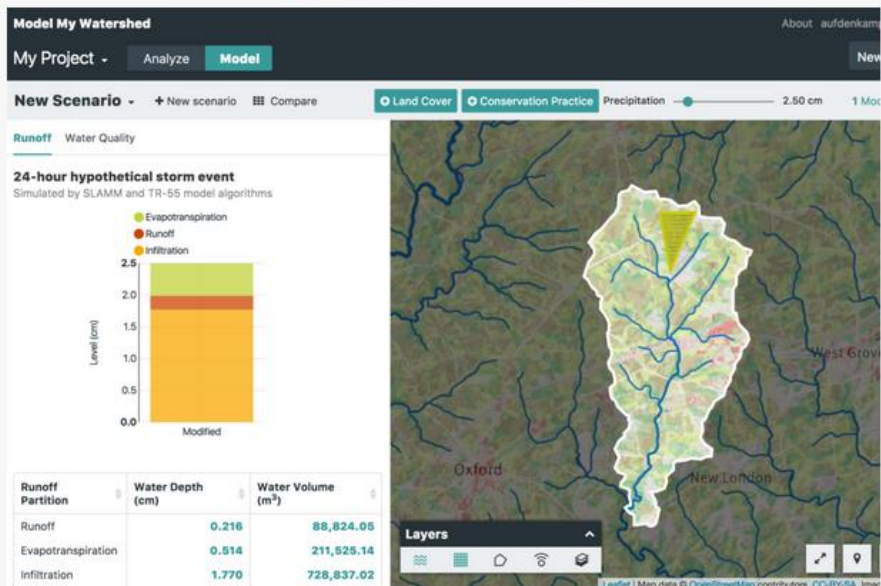


Workshop: Mapping to Analyze Land Use Impacts on Water



<https://ModelMyWatershed.org>



<https://runoff.ModelMyWatershed.org>



Dr. Laura Cisneros, Assistant Extension Professor
Dept. of Natural Resources & the Environment

Conservation Ambassador Program

Week-Long Field Experience &
Conservation Project

UConn Storrs Campus

Conservation Training Partnerships

Two-Day Workshop with Partner &
Conservation Project

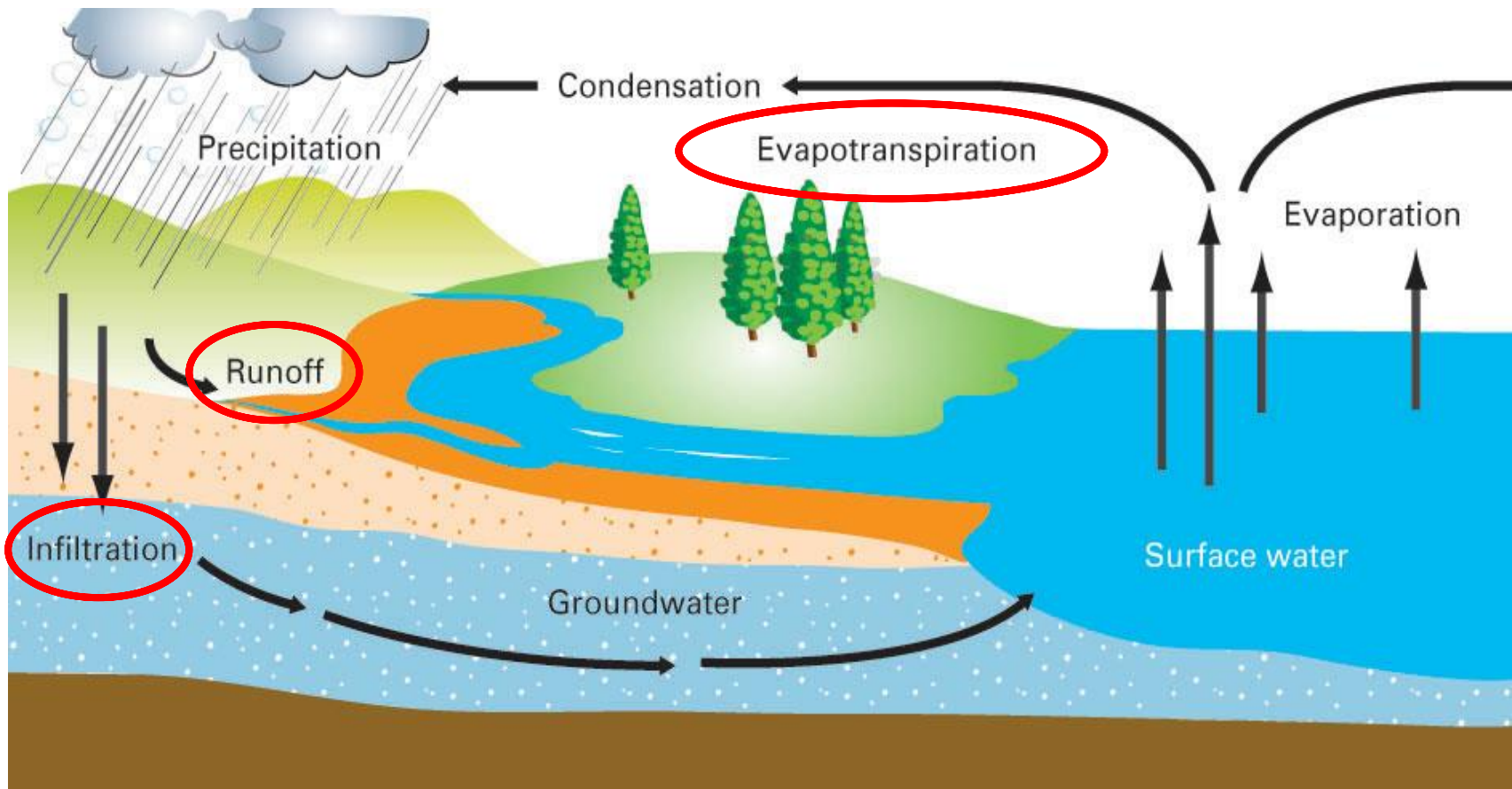
Locations throughout CT



email: nrca@uconn.edu | visit: nrca.uconn.edu
follow: [@UConnNRCA](https://twitter.com/UConnNRCA)



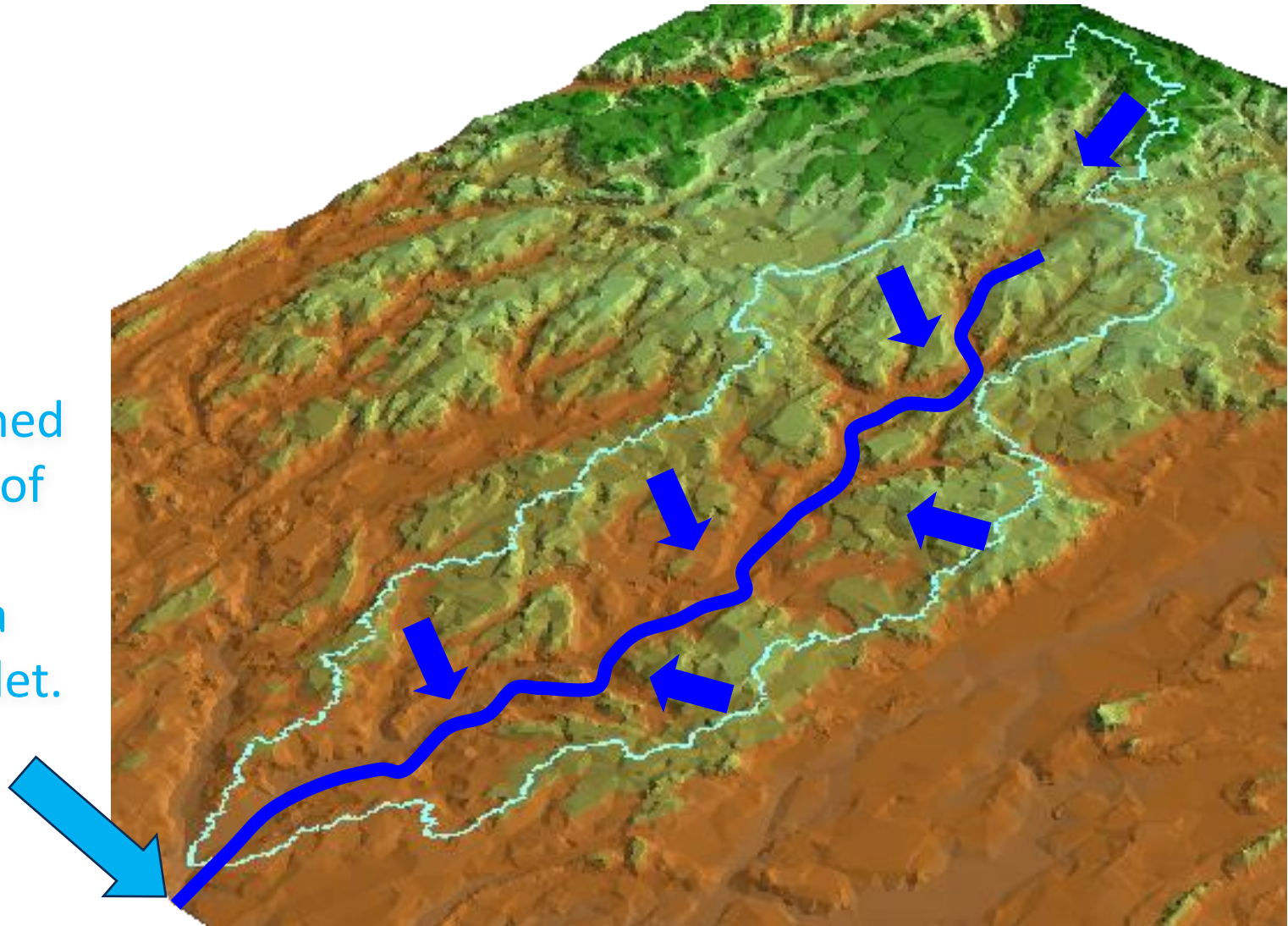
The Water Cycle





What is a Watershed?

A watershed is an area of land that drains to a single outlet.



Current Challenges:

- “Nonpoint” pollution
- Runoff from agricultural and urban areas
- Difficult to identify and control

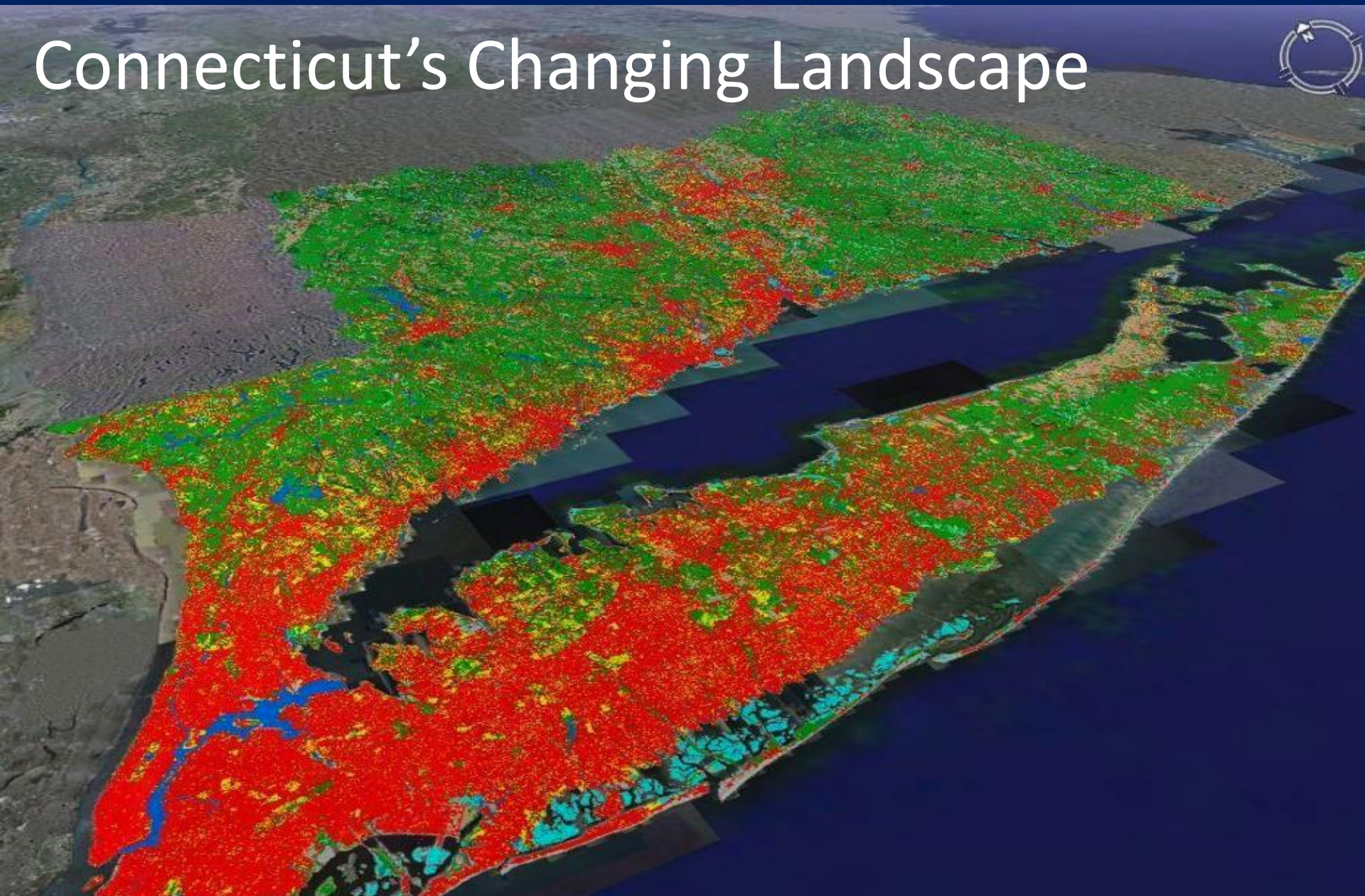




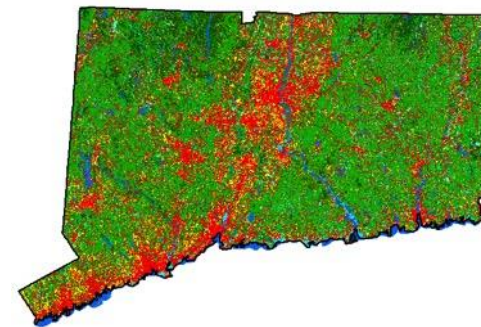
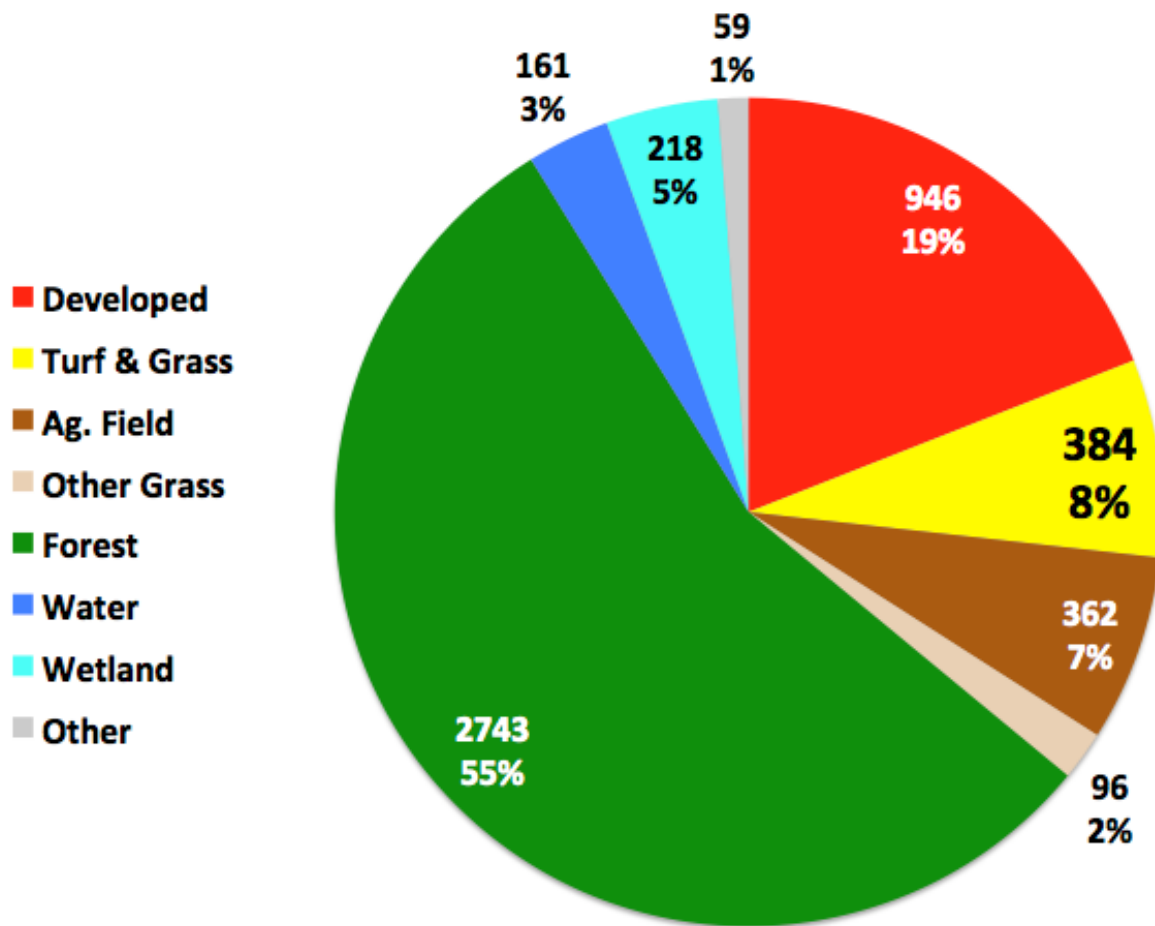
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Connecticut's Changing Landscape

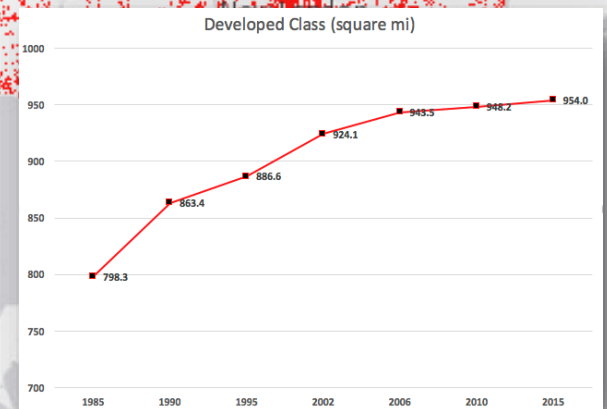
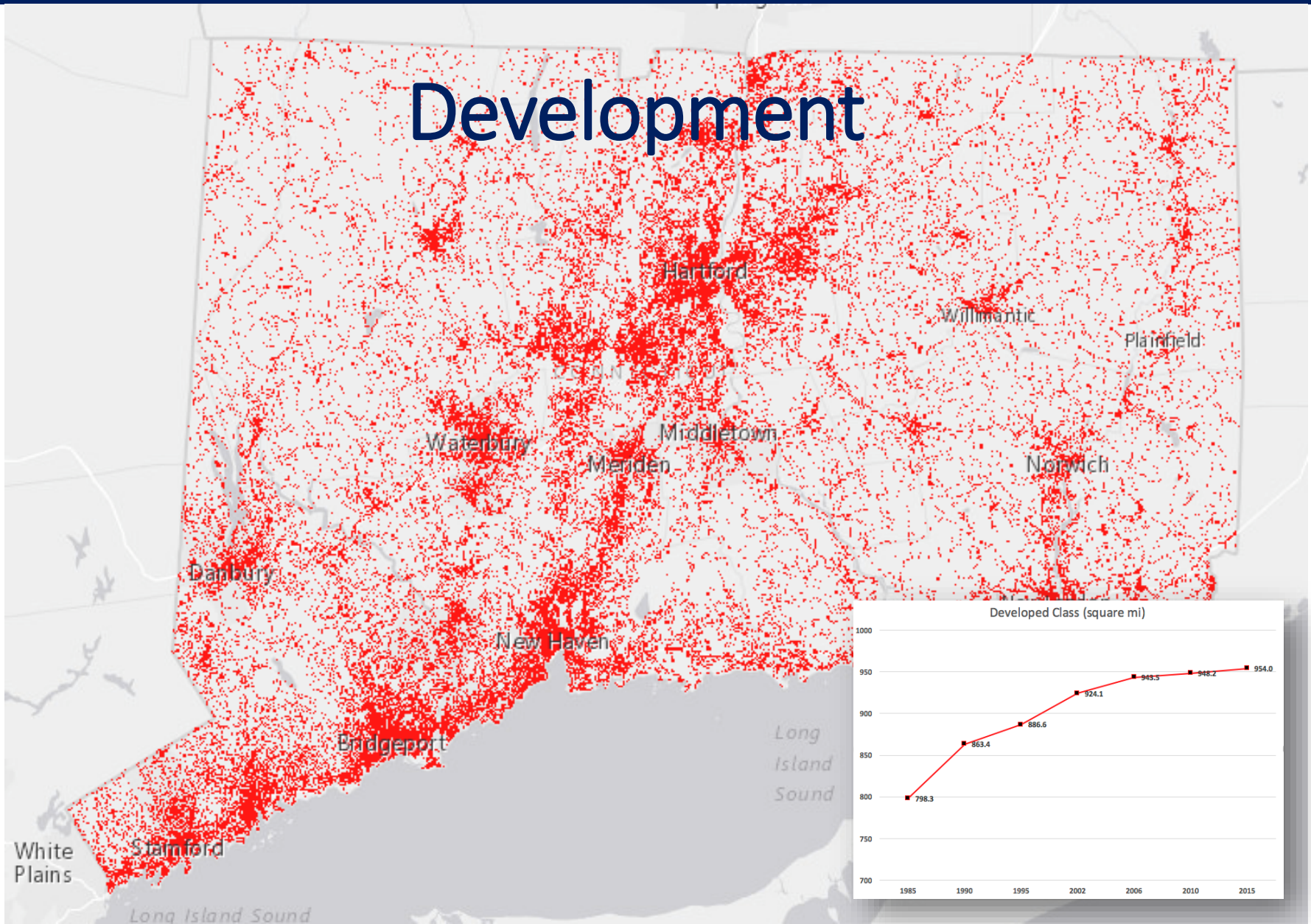


Land Cover Status: 2015



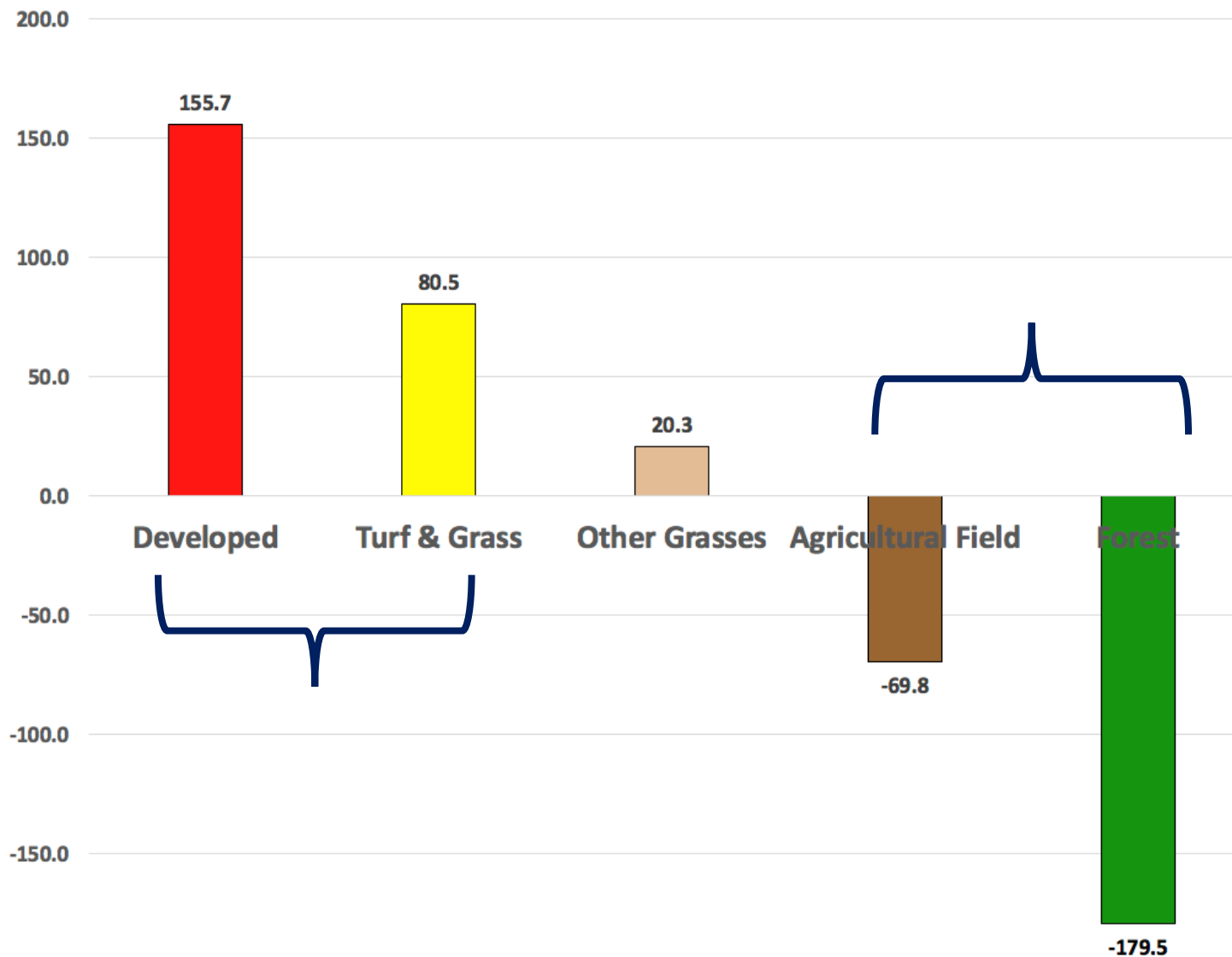


Development





Statewide Change, 1985 - 2015 (sq mi)



Impervious Surfaces



Impervious Surfaces

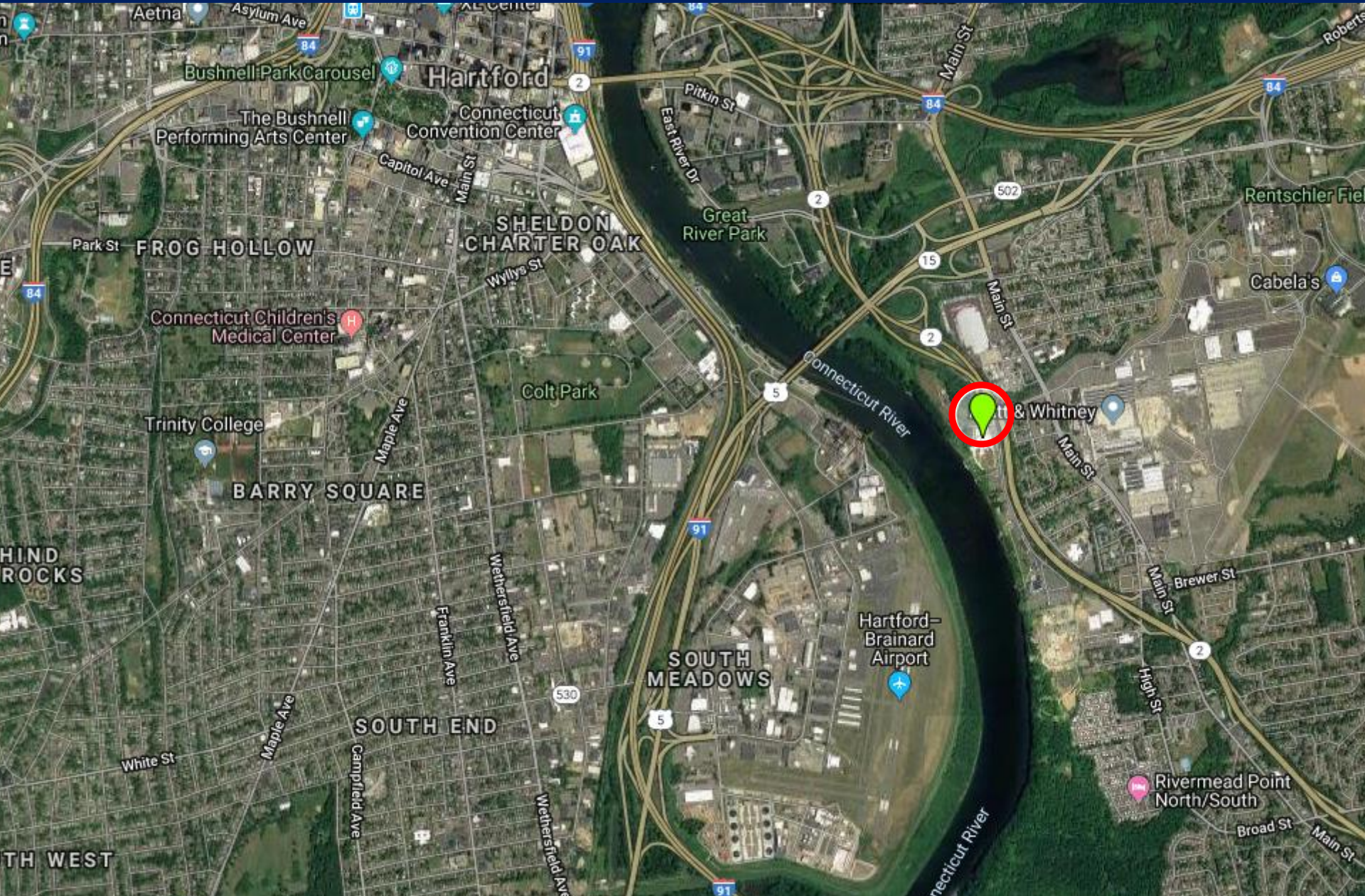
Man-made hard surfaces that prevent percolation of rainfall into the ground.





Water Quantity Impacts

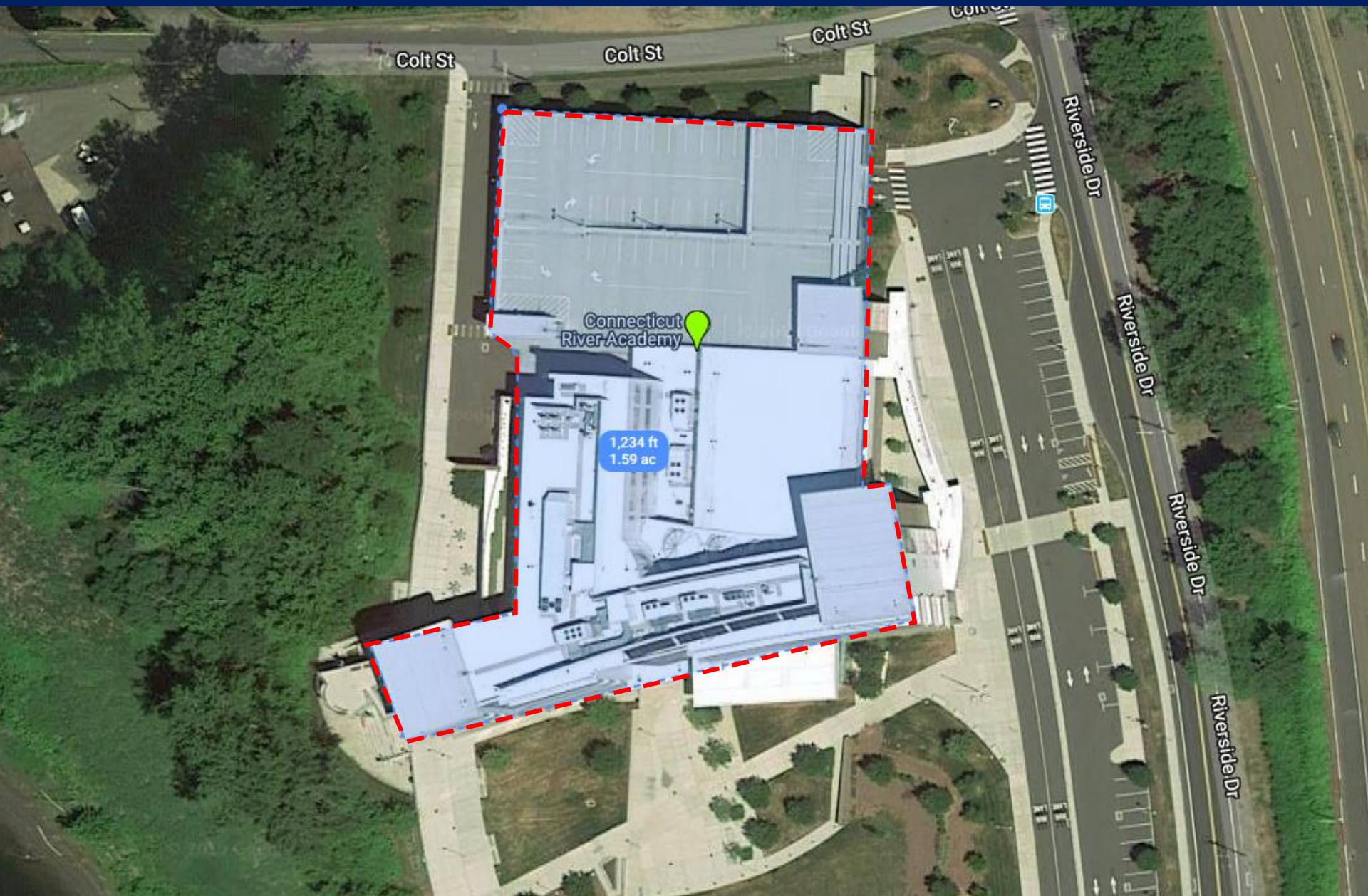




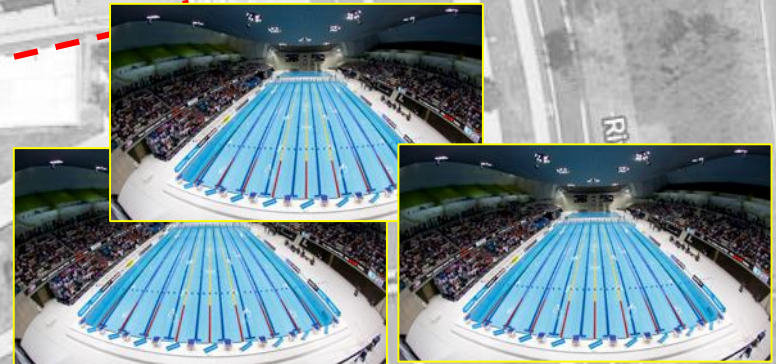


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- 74,923 ft² of impervious area
- 1 inch of rain = 46,677 gallons
- Annual (48") = 2,240,496 gallons
- > 3 Olympic pools



Water Quality Impacts



**Stormwater is the #1 source
of water pollution in the U.S.**

US EPA

WARNING BEACH CLOSED

THE WATER TEMPORARILY DOES NOT
MEET CURRENT HEALTH AND SAFETY
STANDARDS FOR HUMAN CONTACT OR
FISHING.

PATHOGENS

NUTRIENTS



SEDIMENT

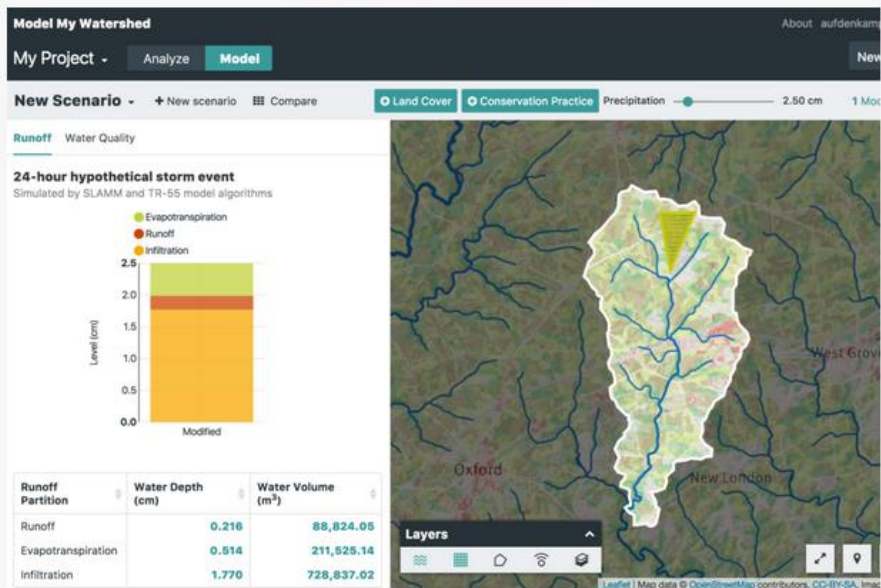
TOXIC CONTAMINANTS



Mapping with Wikiwatershed

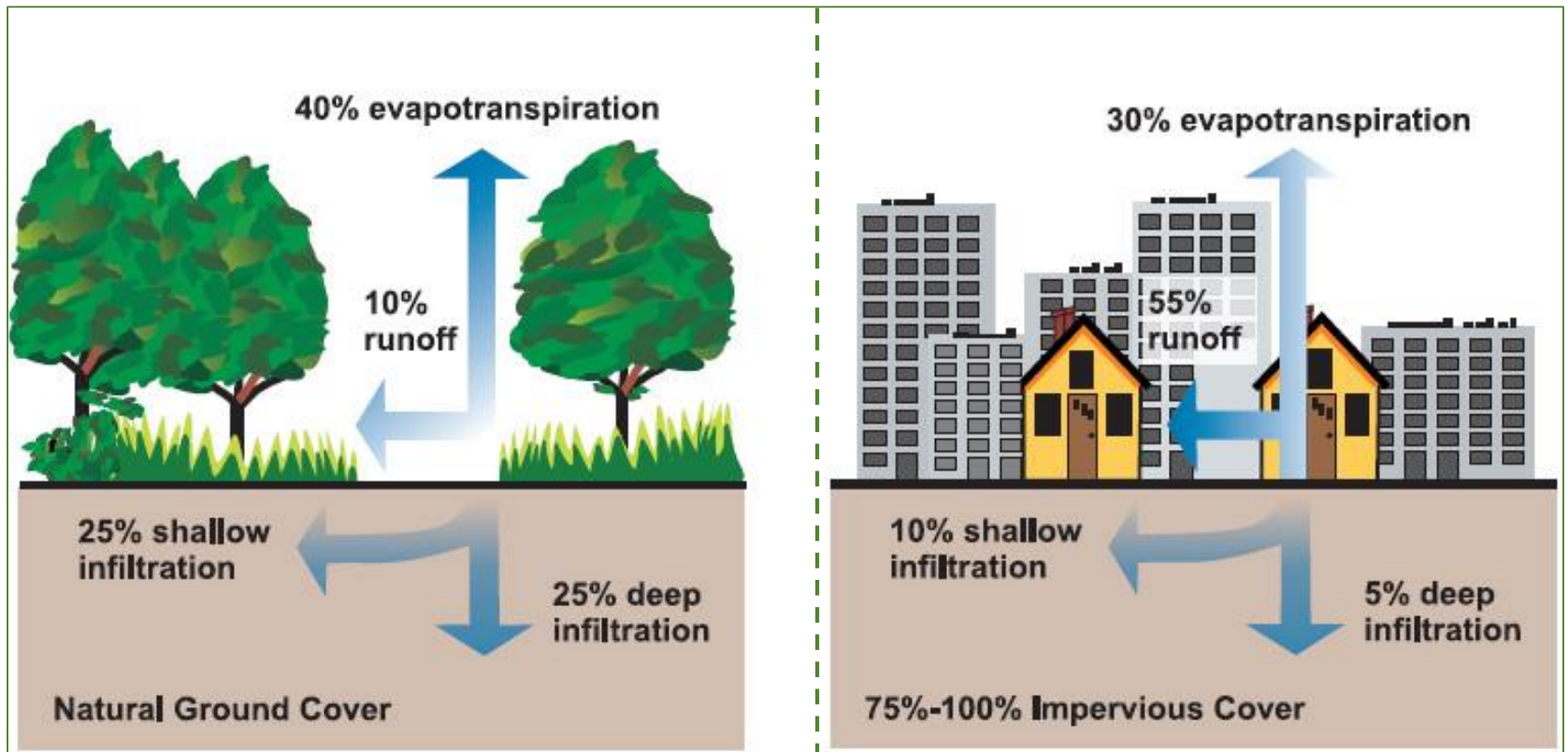


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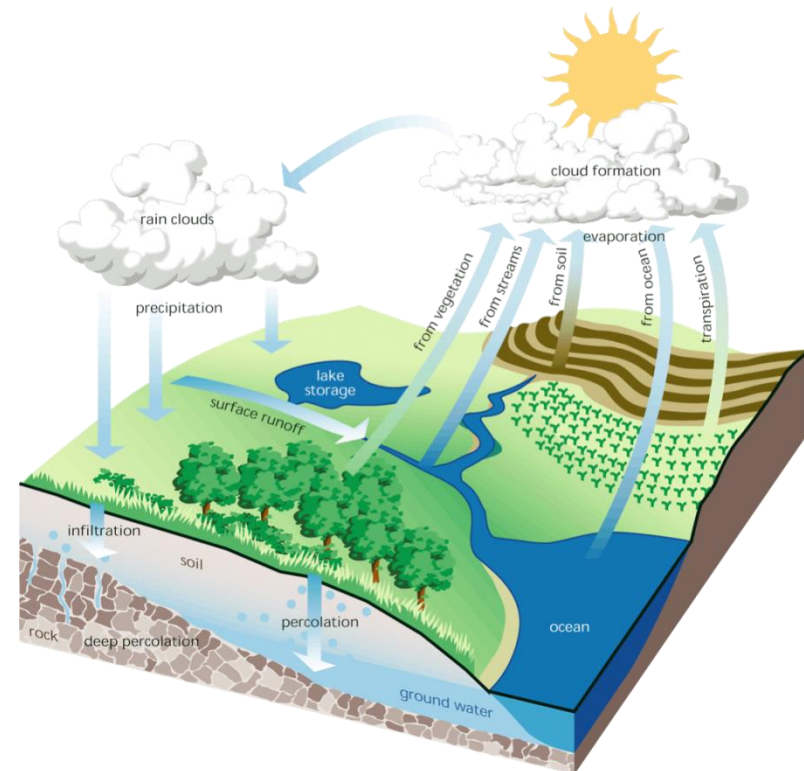


(EPA, 2003)

Low Impact Development (LID)

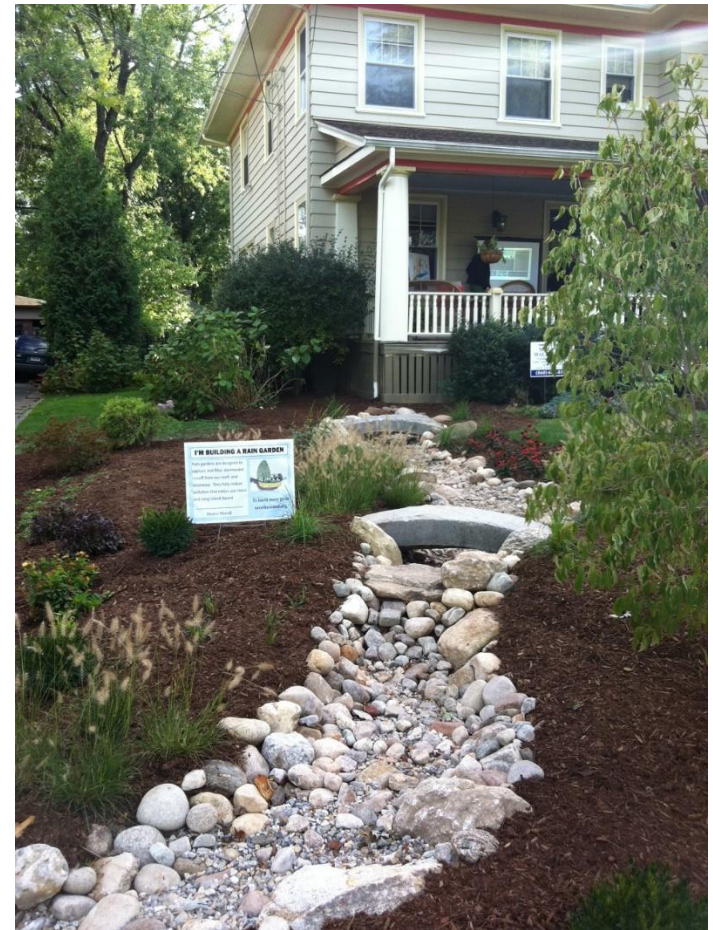
The goal: To preserve pre-development hydrology

- Runoff volume and rate
- Groundwater recharge
- Stream baseflow
- Runoff water quality

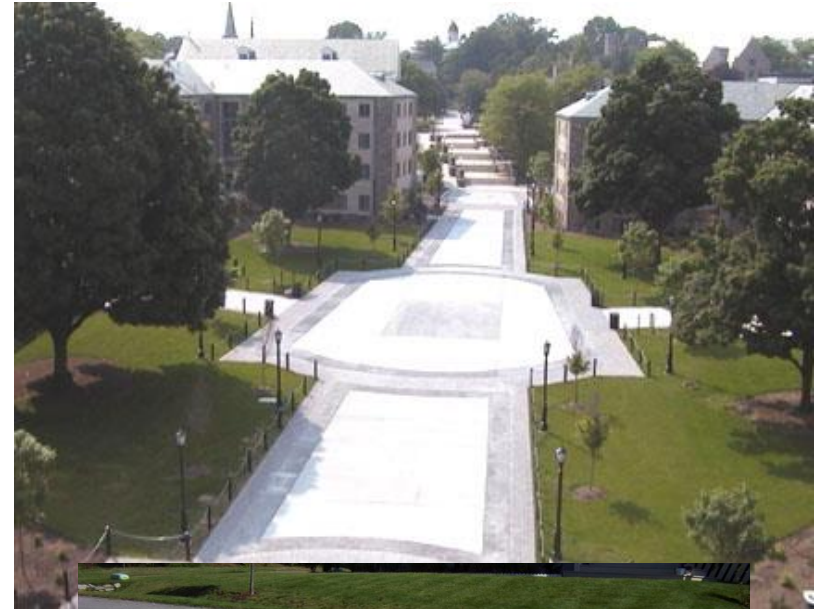




Rain Gardens & Bioretention



Pervious Pavements



Green Roofs





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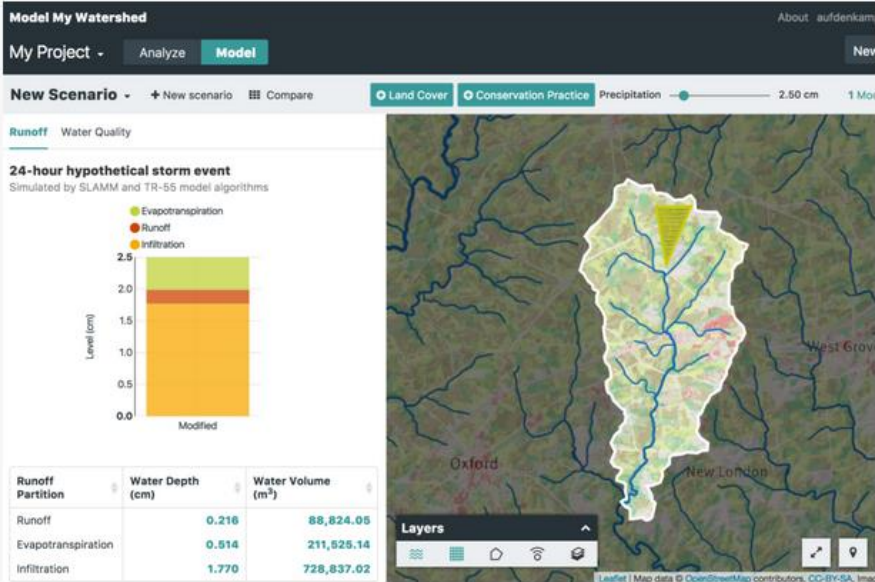
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<http://s.uconn.edu.virtualsitour>

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