



CITY OF PROVIDENCE

Angel Taveras, Mayor

Office of Sustainability

Regional Solutions to Stormwater Management

Stormwater Management Challenges

- Flooding of streets and homes
- Pollution of ponds, rivers and Narragansett Bay
- Undersized and/or deteriorating infrastructure
- Economic impacts on businesses and property owners
- Compliance with regulatory requirements

Stormwater Management Challenges



Flooding



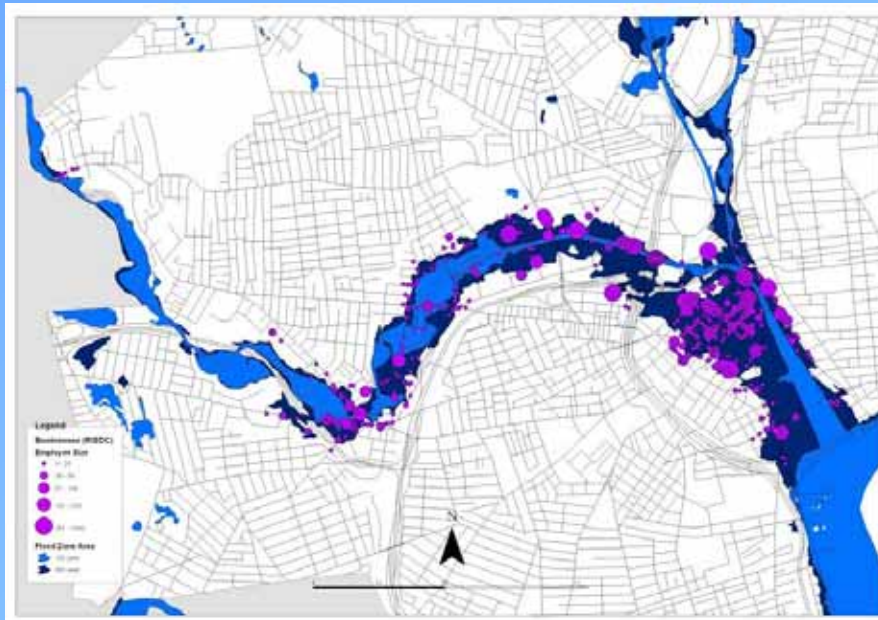
Stormwater Management Challenges



Pollution



Stormwater Management Challenges



Economy



Stormwater Management Challenges



Infrastructure



Stormwater Management Challenges

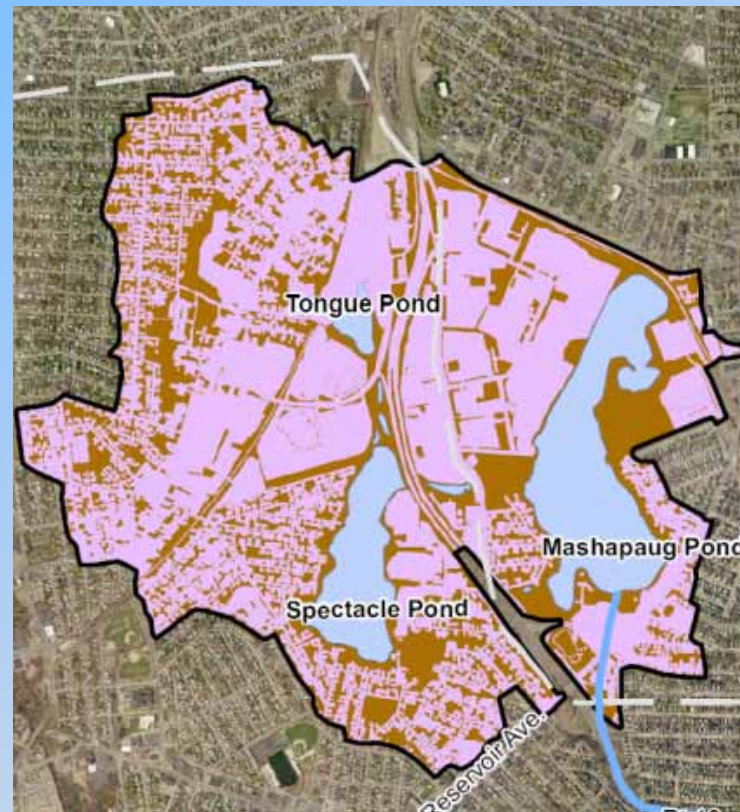
Providence System By The Numbers

- 400 miles of sewers
- 16,000 catch basins and inlets
- 20,000 manholes
- 175 storm outfalls ranging from 8" to 10' wide
- Street sweeping: \$400,000/yr
- Sewer Division:
 - Two trucks can each clean 10 basins/day
 - 9 employees at \$700,000/yr
- Technical services by Engineering: \$125,000/yr

NBC and DOT own and manage key assets in Providence as well.

Stormwater Management Challenges

- A significant percentage of the Providence metro area is paved.
- Run-off contributes to problems both in Narragansett Bay and in rivers and ponds throughout the region.



Stormwater Management Challenges



Compliance



Stormwater Management Challenges

**Regionally Averaged Annual Precipitation
1948-2007**

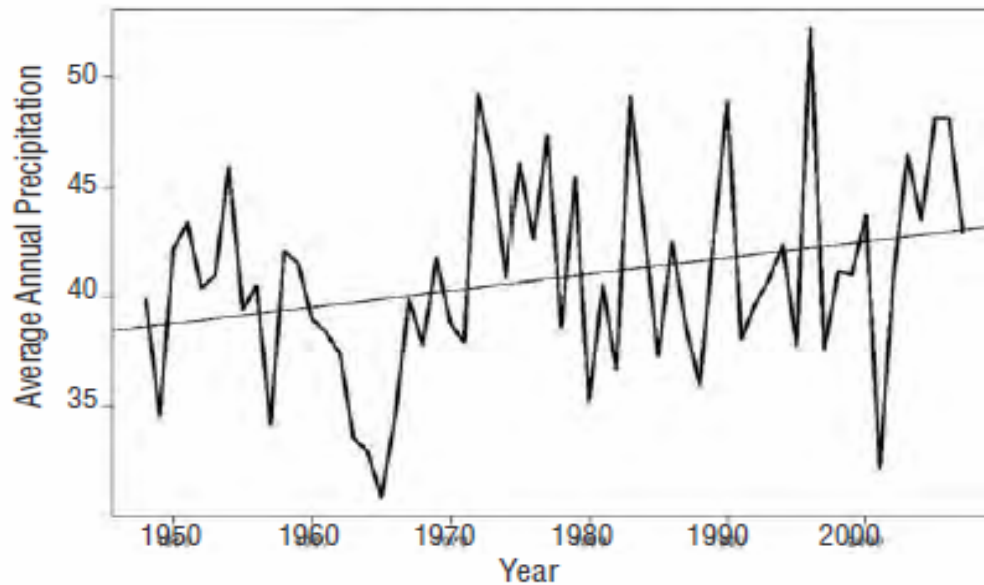
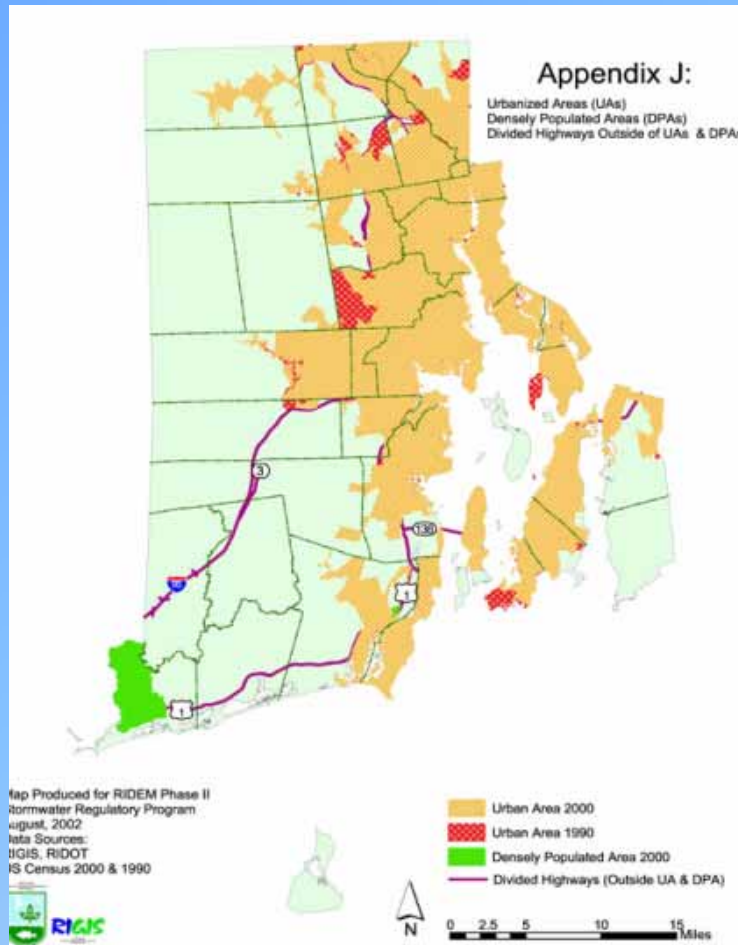


Figure 3. Time series of regionally averaged annual precipitation from 1948 – 2007. Regional average is weighted by the size of each climate division in the Northeast.

More to come



Stormwater Management Regional Approach



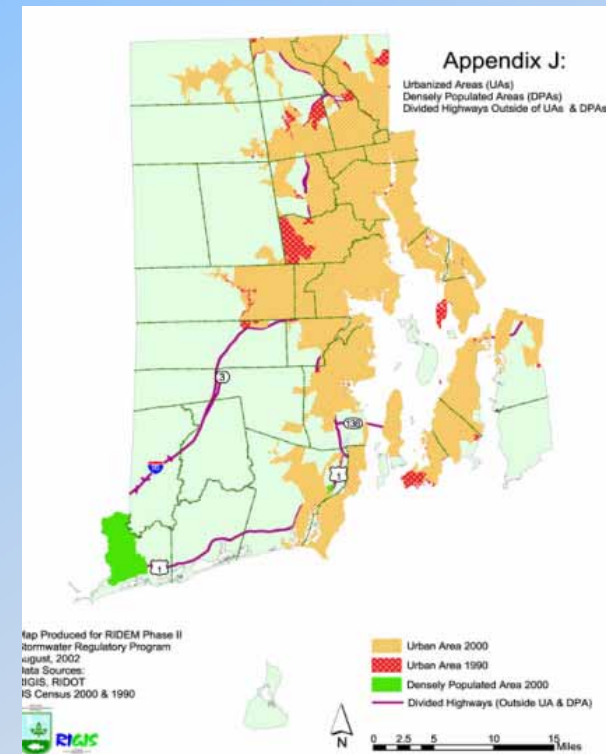
Compliance With Phase II MS4 General Permit Required in Rhode Island

- 34 municipalities
- 7 Federal, State and Quasi State facilities

Stormwater Management Next Steps

Potential Benefits of Regional Approach

- Avoid duplicative efforts
- Develop more comprehensive strategic solutions with regional impact
- Potential cost savings
- Compelling to potential funders



Stormwater Management Next Steps

- Identify Potential Regional Partners
- Seek Funding for Feasibility Study
- Assess Feasibility of Stormwater Utility

Stormwater Management Next Steps

Assess Feasibility of Stormwater Utility

- Define compelling reasons to create a stormwater utility
- Describe what's currently being done and its costs
- Describe priorities for enhancing stormwater management and costs
- Evaluate revenue potential via a stormwater utility
- Identify any "show stoppers"

Stormwater Management Next Steps

Building the Political Will

- Making the case to address significant problems facing each community
- Demonstrate short and long term benefits that will create more sustainable communities
- Engaging in each municipality

