

Paying for the Management, Reduction, Mitigation, Treatment, Recycling, or Recapture of Stormwater

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ENVIRONMENTAL FINANCE CENTER

Helping communities provide environmental programs and services in fair, effective, and financially sustainable ways through:

- Applied Research
- Teaching and Outreach
- Program Design and Evaluation



How you pay for it matters

Finance Research and Tools

Water Research Foundation **EPA**

Defining a Resilient Business Model for Water Utilities

Subject Area: Management and Customer Relations

Designing Water Rate Structures for Conservation & Revenue Stability

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Texas Municipal Water and Wastewater Rates Dashboard Rates in 2013

Example Utility



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ASSESSING WATER SYSTEM REVENUE RISK: Considerations for Market Analysts

April 2013

Water and Wastewater Service Pricing in Arizona 2013-14 Rates Survey Results

This document details the results of a survey of drinking water and wastewater rates and rate structures conducted by the Water Infrastructure Finance Authority of Arizona and the Environmental Finance Center at the University of North Carolina, Chapel Hill in 2014. Rates and rate structures are analyzed at 25 utilities throughout the State of Arizona. In addition to this report, the EFC produced comprehensive cost and wastewater rate tables, rate plans of individual utilities, and an interactive Rates Dashboard design to allow the user to compare residential water utility groups of utilities and analyze the affordability of services and the extent to which utilities are financially sustainable. To access these resources, please visit <http://www.unc.edu/efc> or <http://efc.uncc.edu>.

September 2014

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MEASURING & MITIGATING WATER REVENUE VARIABILITY

Understanding How Pricing Can Advance Conservation Without Undermining Utilities' Revenue Goals

July 2014

Authored by: Stuart East, Jeff Hughes, Mary Ellen, & Katie Sedwick, Environmental Finance Center at the University of North Carolina, Chapel Hill; Shantae Leung, Ceres.

Topics

- Stormwater Finance
- Stormwater Revenue Trends
- SRF and Stormwater Finance
 - Past
 - Future??

Have you? Can you? Will you?

- Make a \$1 million loan to a non-profit to seed a Green Infrastructure Revolving loan fund
- Provide \$1 million subsidy to Walmart to build large scale cisterns?
- Lend \$1 million to Beach Town for Coastal Climate Adaptation Plan?



A Wet New World??

Section 603(c)(5)

(5) for measures to manage, reduce, treat, or recapture stormwater...

Section 603(c)(9)

(9) *for reusing or recycling wastewater, stormwater, or subsurface drainage water*

Evolving Stormwater Finance

Revenue Sources

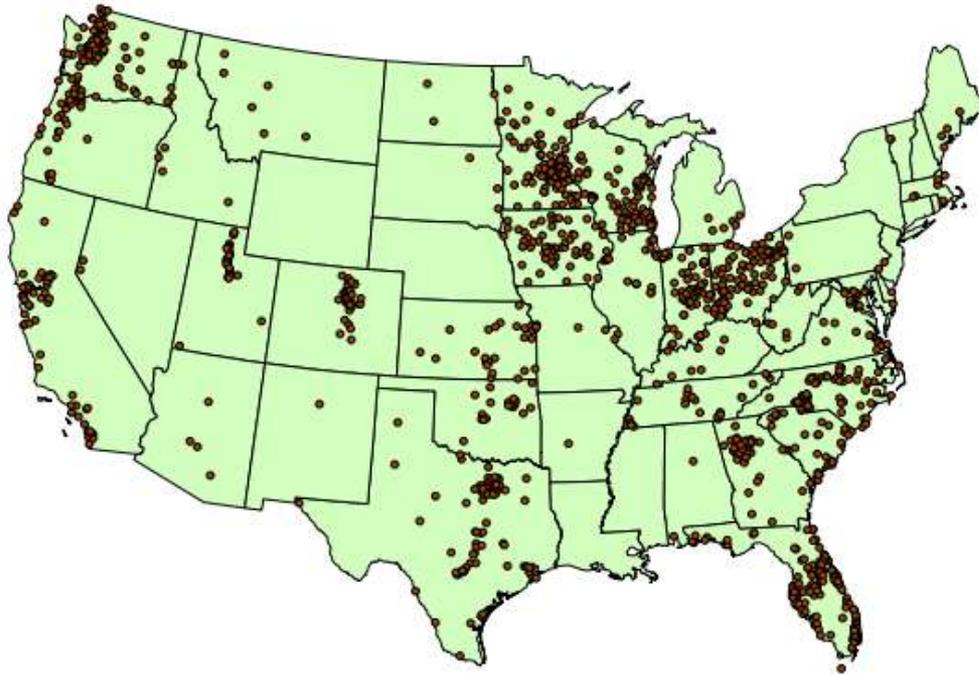
1. General tax revenue
2. Dedicated property or sales taxes
3. Wastewater fees (CSO communities)
4. Developer “contributions”
5. Impervious area fees
6. “Voluntary” contributions

Financing Mechanisms

1. Direct expenditures on public property
2. GO debt
3. Cost sharing grants/rebates for private projects
4. Rev. backed debt
5. Local loan programs
6. Fee credit programs

Stormwater Utilities Across the Country

SWUs 2013



(Source: Western Kentucky University Stormwater Survey
(<http://www.wku.edu/engineering/civil/fpm/swusurvey/>)

Rise of Stormwater Utility

		Residential		Non-Residential		
Stormwater Utility	Fee Per ERU	Average ERU	Number Accounts	Average ERU	Number Accounts	2012 AFIR Reported Revenue
Durham	\$6.28	1.25	46,353	20	5,365	\$12,556,333
Raleigh	\$4.00	1.25	110,124	20	7,814	\$15,520,724





DISTRICT OF COLUMBIA

Green Infrastructure Challenge



- Riversmart Homes
- River Smart Communities
- DDOE Stormwater Fee Discount (RiverSmart Rewards)
- Green roof rebate program (\$7 to \$10 per sf of green roof)
- Stormwater Retention Credit (SRC)
- Trading Program

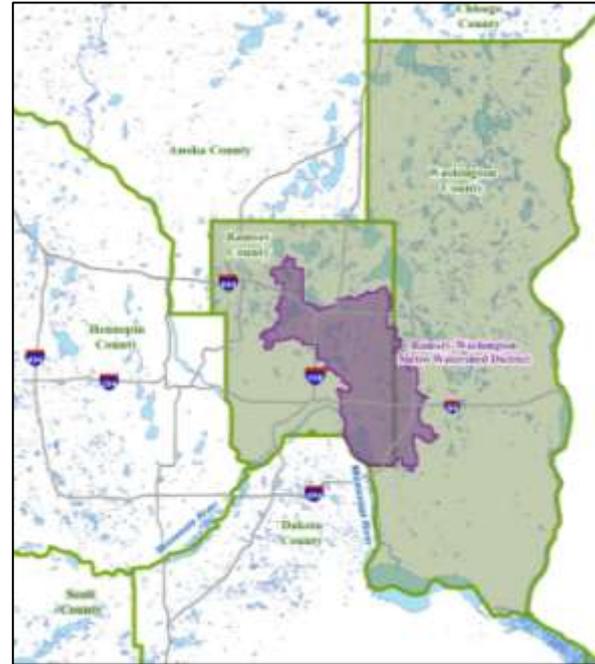
DISTRICT
DEPARTMENT
OF THE
ENVIRONMENT



PHILADELPHIA



- Impervious Fee Replaces Meter based Fee
- Stormwater Management Incentives Program Grant
- Stormwater Management Credits
- Green Roof Tax Credit



RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, MN

Maplewood Mall Project



- 35 acres of parking lot
- impervious 70 acres including building
- 55 Rain gardens
- 375 Trees in Trenches
- 5700 Gallon Cistern
- Sand Filters
- Pervious Pavers
- Educational Signage

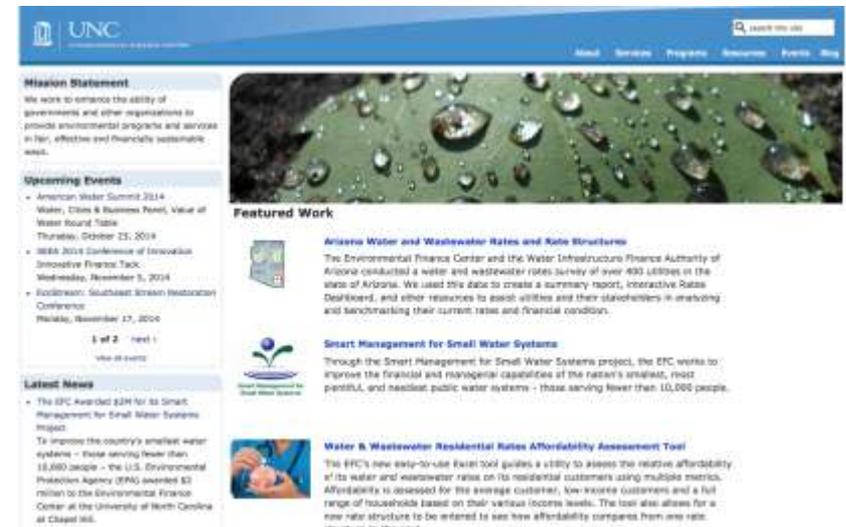


Slide Source: Cliff Aichinger, RWI/MWD

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