



Smart Management for
Small Water Systems

Benchmarking Residential Water and Sewer Rates in South Carolina

Columbia, South Carolina
Thursday, May 12, 2016

This program is made possible under a
cooperative agreement with EPA.



UNC
ENVIRONMENTAL
FINANCE CENTER



www.efcnetwork.org



UNC
ENVIRONMENTAL FINANCE CENTER



Objectives

- Become familiar with features and benefits of our South Carolina Residential Water and Wastewater Rates Dashboard.
- Learn how to compare one system's rates with those of other systems.
- Learn how to apply useful financial benchmarks to your system.



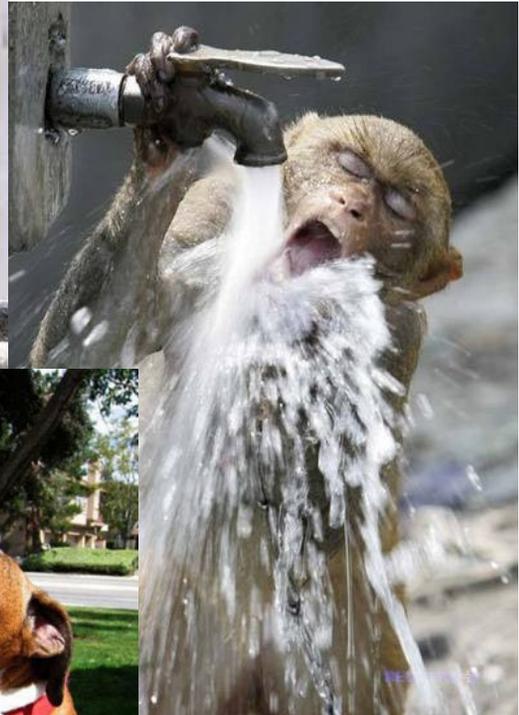
Water Rates in South Carolina

October 2015 Residential Water/Wastewater Rates in South Carolina:

- SC rates data sourced from statewide rates survey by the South Carolina Rural Infrastructure Authority's Office of Local Government
- Over 230 residential drinking water and/or wastewater utilities included
- Municipalities and Special Purpose Districts

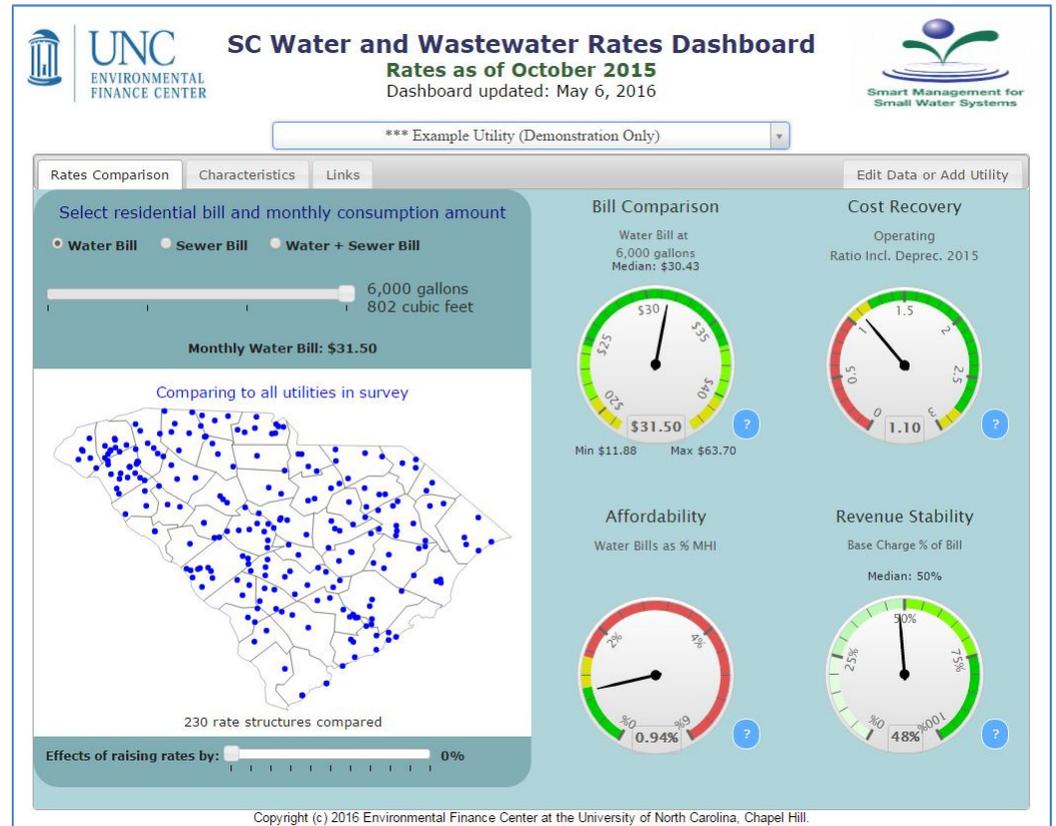


Everyone needs safe drinking water!



The South Carolina Rates Dashboard!

- On the EFC Website:
 - Go to: efc.sog.unc.edu and search for “South Carolina Rates Dashboard”





Source of pride?

Government | City Services | About Us | Live & Work | E-Services

You are here: [Home](#) > News Flash

News Flash - All

News Flash - Home

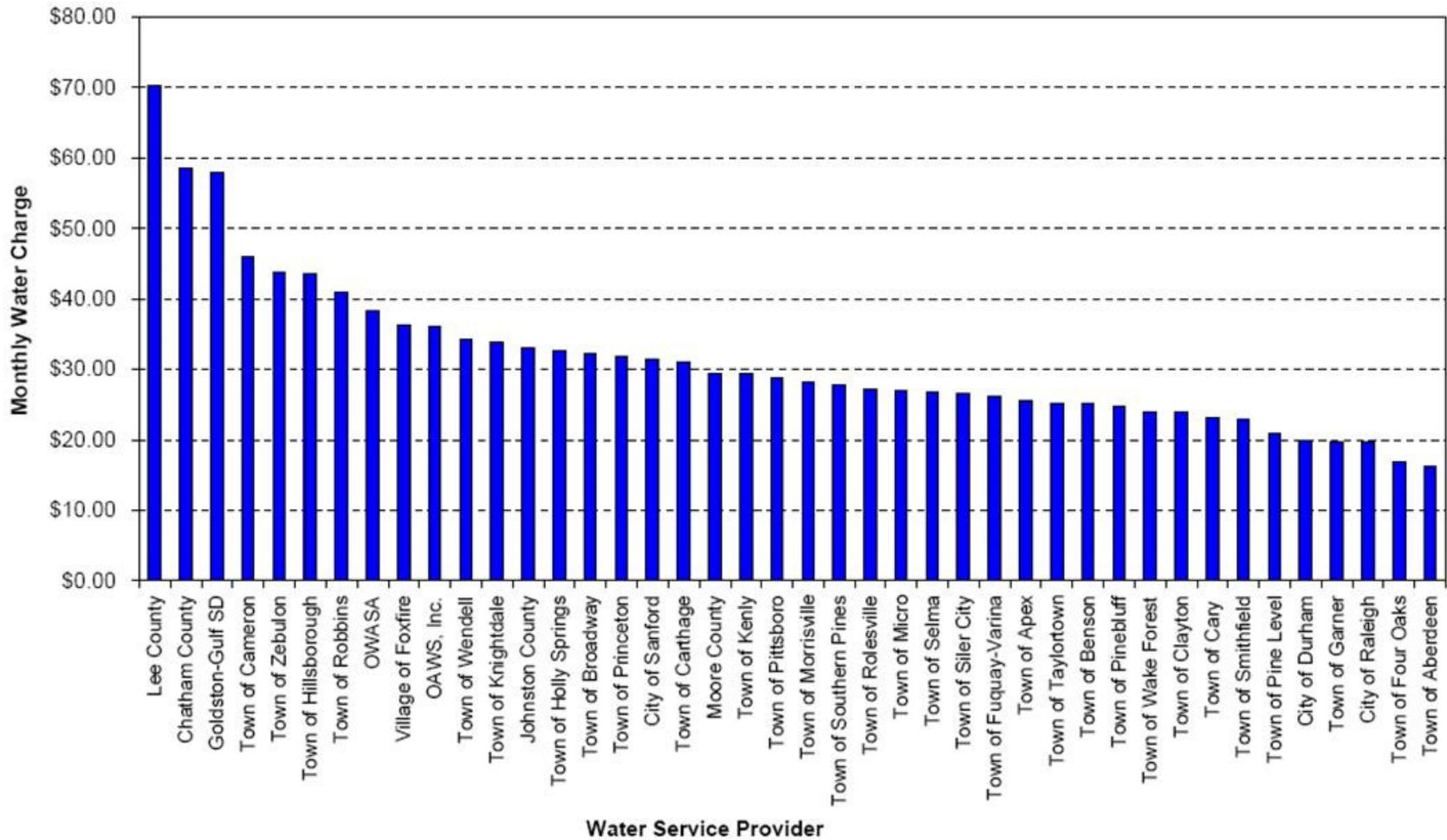
Low Water and Sewer Rates

January 8, 2007

Once again, the City of [redacted] Water Department proved to have some of the lowest water and sewage rates in the state. A recent statewide comparison was conducted among 63 water providers. [redacted] the rates residents pay for their water and sewage on a monthly basis. The City of Cartersville is proud to say, based on 7,000 gallons, the average monthly usage per household, the City has the third lowest water and sewage rates statewide, with an average water bill of \$15.38, and sewage bill of \$10.36. As a result, [redacted] proved to have the third lowest combined residential water and sewage rates, of the 63 polled.

Job Openings
Citizen Survey Results
Council Agenda
Comprehensive Planning Information
Community Assessment
E-News Signup





Source: NC Triangle J Council of Government



www.efcnetwork.org



UNC ENVIRONMENTAL FINANCE CENTER



What's wrong with it?

- Poor sample selection (number, types of systems)
- Comparing only one bill amount
- Comparing nothing besides rates
 - pressure to keep rates low ...
 - ... regardless of financial condition of utility
 - ignores customers' ability to pay
 - ignores price signals and utility's policies

Solution: provide more information?

Rate Table 1: FY09-10 Water Rate Structures for Residential Customers

Utility / Rate Structure	Service Population	Billing Period	Base Charge Pricing	Monthly Gallons Provided with Base Charge (Allowance)	Water Rate Structure	Number of Blocks	First Block Maximum (Monthly Gallons)	Implied Rate Structure for Residential Usage (< 15,000 GPM)	Outside/Inside Bill Differential at 5,000 Gallons
Aberdeen	5,455 ¹	Bi-monthly	Constant	0	Increasing Block	5	2,500	Increasing Block	188%
Ahoskie	4,479 ¹	Monthly	Constant	0	Uniform Rate			Uniform Rate	200%
Alamance	800 ¹	Bi-monthly	Constant	0	Uniform Rate			Uniform Rate	
Albemarle	16,042 ¹	Monthly	Constant	2,244	Decreasing Block	3	224,400	Implied Uniform Rate	200%
Alexander County - Bethlehem	10,917 ¹	Monthly	By Meter Size	0	Uniform Rate			Uniform Rate	

Compare with caution. High rates may be justified and necessary to protect public health.

Rate Table 2: FY09-10 Monthly-Equivalent RESIDENTIAL WATER Bills at Various Consumption Levels (Includes Base Charges)

Utility / Rate Structure	Service Population	Oper. Revenue/ Oper. Expense (FY09 LSC Data)	Zero Gallons (0 cf)		3,000 Gallons (401 cf)		5,000 Gallons (668 cf)		6,000 Gallons (802 cf)		10,000 Gallons (1,337 cf)		15,000 Gallons (2,005 cf)	
			Inside	Outside	Inside	Outside	Inside	Outside	Inside	Outside	Inside	Outside	Inside	Outside
			Aberdeen	5,455 ¹	0.81	\$5.00	\$8.00	\$11.82	\$21.65	\$16.62	\$31.25	\$19.17	\$36.35	\$29.75
Ahoskie	4,479 ¹	1.50	\$10.00	\$20.00	\$20.95	\$41.90	\$28.25	\$56.50	\$31.90	\$63.80	\$46.50	\$93.00	\$64.75	\$129.50
Alamance	800 ¹	0.73	\$8.50		\$19.27		\$26.45		\$30.04		\$44.40		\$62.35	
Albemarle	16,042 ¹	0.87	\$9.49	\$18.97	\$11.31	\$22.60	\$16.12	\$32.23	\$18.53	\$37.04	\$28.15	\$56.29	\$40.18	\$80.36
Alexander County - Bethlehem	10,917 ¹	1.16	\$27.92		\$32.09		\$34.87						3.78	
Aurora	Alexander County - Sugarloaf and Hwy 16	10,917 ¹	1.16	\$19.44		\$29.66		\$36.47					1.52	
Autryville	2,285 ¹	0.87	\$14.20	\$40.70	\$14.20	\$40.70	\$19.03		\$46.33				7.43	\$83.83
Ayden	Angier								\$39.30				5.80	\$92.30
Bailey	Anson County												4.89	
Bakersville	Ansonville												3.67	
Bald Head Island	Apex								\$44.28				7.34	\$114.68
Banner Elk	Archdale								\$47.50				1.25	\$122.50
Bath	Asheboro								\$51.74				4.24	\$135.70
Baton Water Corporation	Asheville												3.63	
Bay River Metropolitan S	Atlantic Beach												1.35	
Beaufort	Aulander												7.28	\$25.06
Beaufort County - District	Aurora								\$22.71				3.65	\$107.40
Beaufort County - District	Autryville	375 ¹	1.02	\$19.00	\$23.75	\$30.50	\$38.13	\$42.00	\$52.50				3.50	\$124.38
Beaufort County - District	Ayden	5,629 ¹	1.11	\$11.00	\$22.00	\$23.75	\$37.75	\$32.25	\$48.25				3.74	\$115.74
Beaufort County - District	Bailey	850 ¹	0.88	\$16.50	\$33.00	\$20.79	\$41.58	\$23.65	\$47.30				7.95	\$75.90
Beaufort County - District	Bakersville	737 ¹	0.63	\$16.00	\$26.00	\$16.00	\$26.00	\$17.00	\$28.00				7.00	\$48.00
Beaufort County - District	Bald Head Island	2,806 ¹	1.28	\$17.67		\$32.64		\$48.27					3.47	
	Banner Elk	1,407 ¹	0.76	\$12.60	\$25.20	\$16.20	\$32.39	\$23.89	\$47.78				3.89	\$121.78
	Bath	290 ¹	1.17	\$27.50		\$37.50		\$57.50		\$67.50	\$107.50		\$157.50	
	Baton Water Corporation	6,720 ¹		\$13.65		\$13.65		\$21.29		\$25.11	\$40.39		\$58.43	
	Bay River Metropolitan S	2,285 ¹	1.31											

185 pages
of wonderful tables,
full of data you can use!



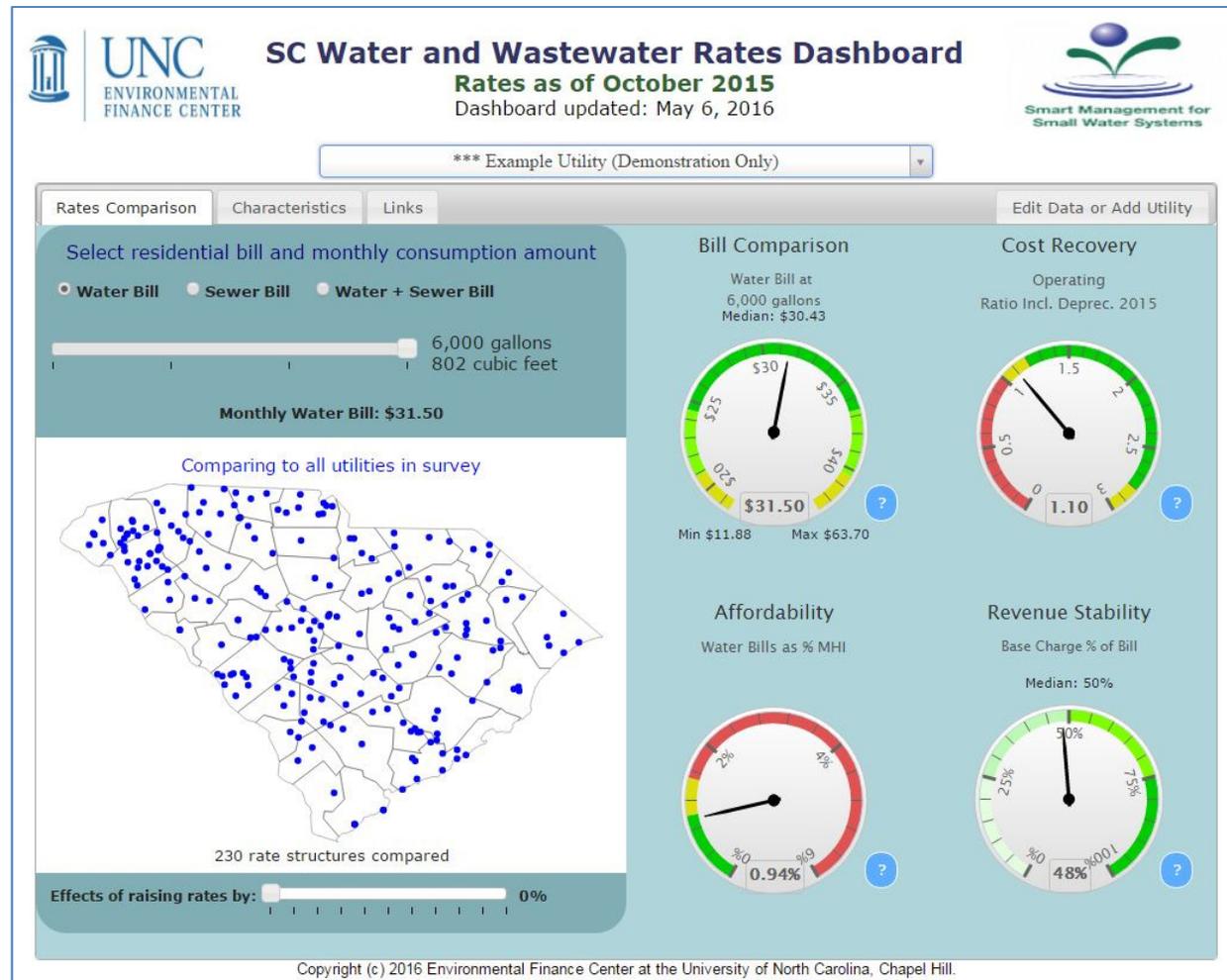
Service Pop.: 1=EPA SDWIS, 2=sewer accounts, 6=Water

Water/Sewer Rates Dashboards

- Created for AL, AZ, CO, GA, IL, MA, NC, OH, SC, TX, VA, WI and Canada. (With more coming soon!)
- Free, online, open to the public.
- Compares rates against multiple characteristics:
 - Utility finances; System characteristics; Customer base socioeconomic conditions; Geography; History
- Compare to similar utilities (large samples):
 - All utilities; similar service population; similar water source; using same rate structure; similar customer income; same type of utility; within 50 miles distance

Demonstrate the SC Dashboard:

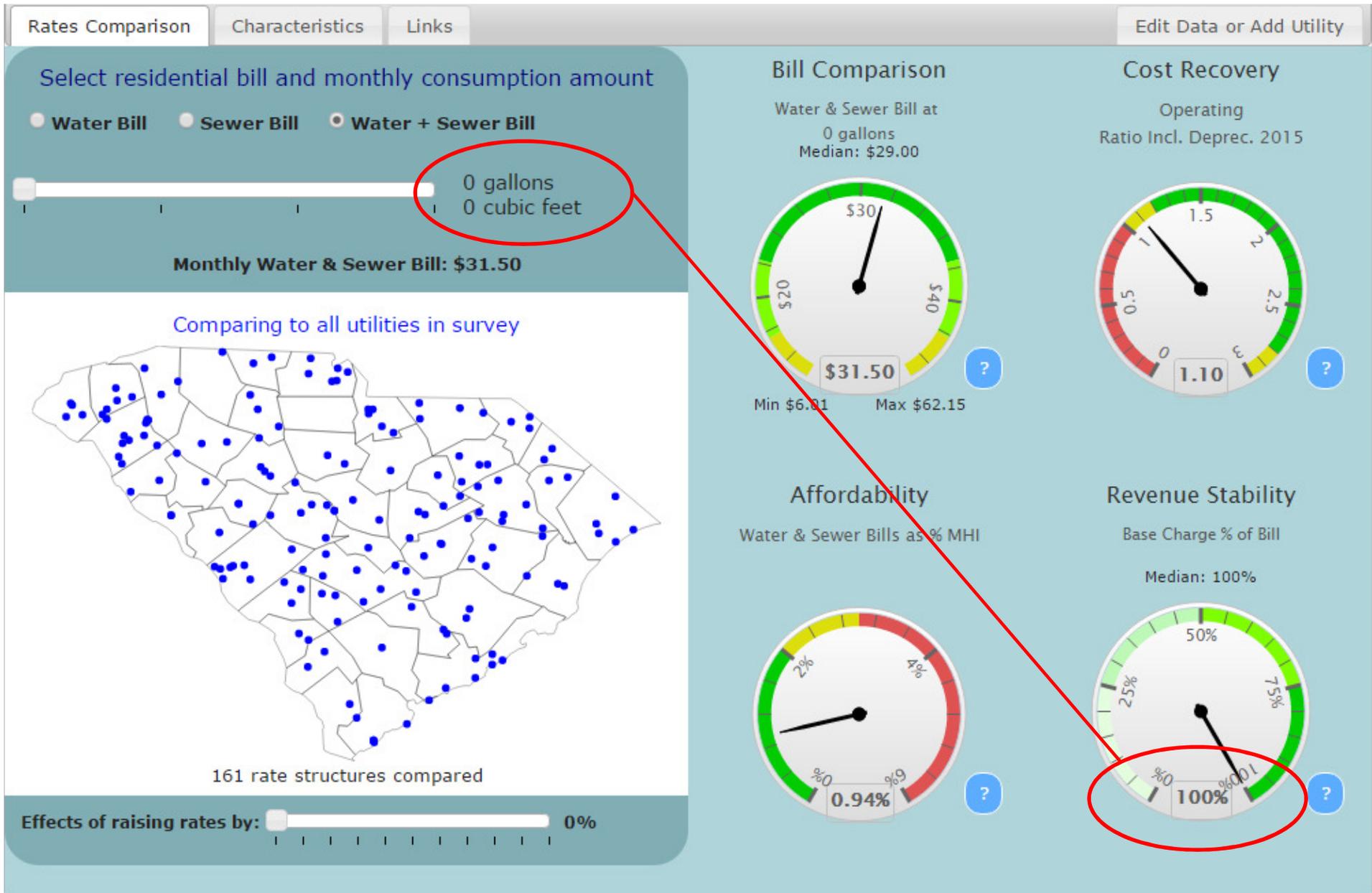
<http://efc.sog.unc.edu>



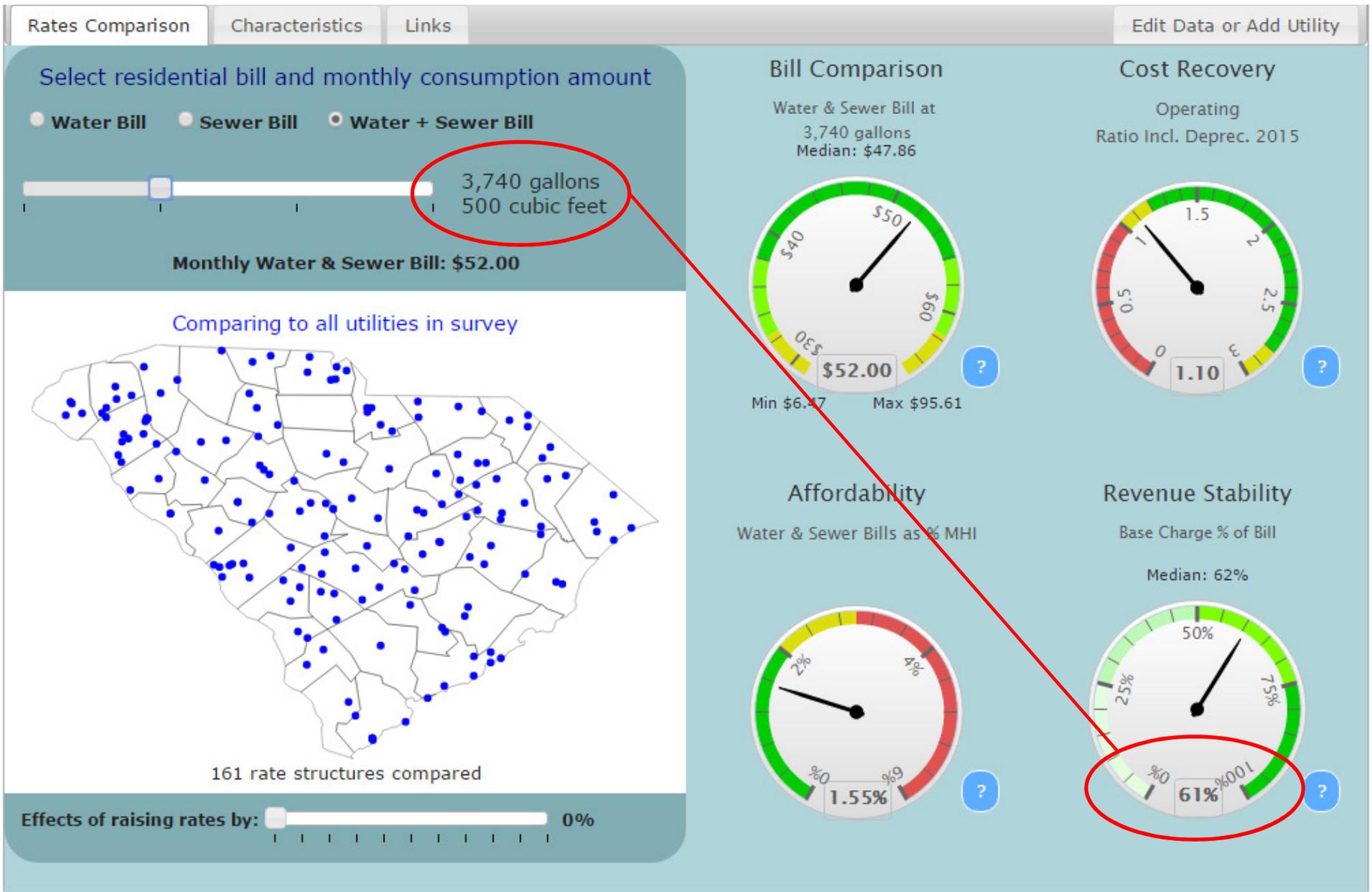


New Revenue Stability Dial

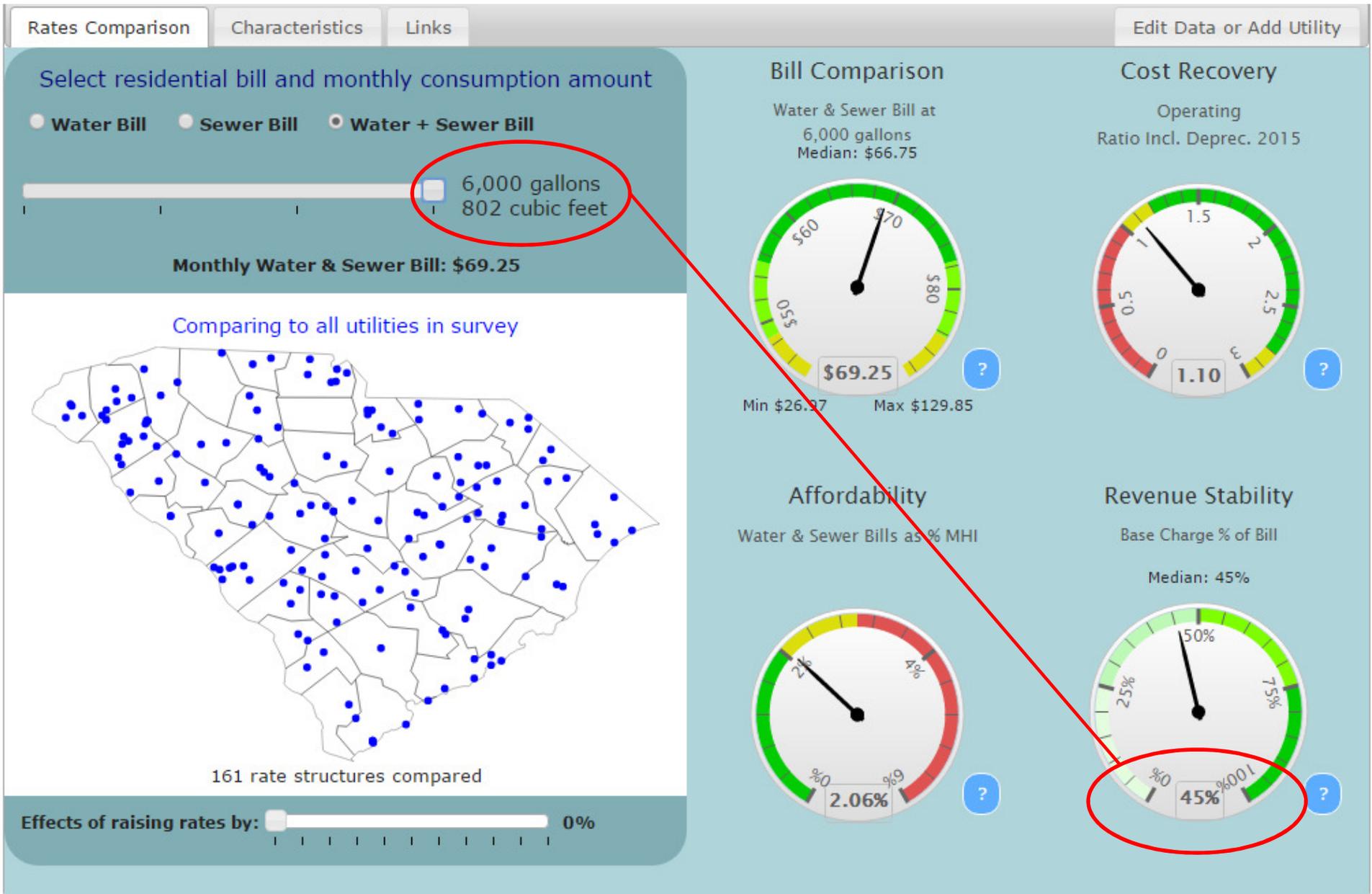
- Added to the new S.C. rates dashboard
- May later add it to other rates dashboards (e.g. N.C.)
- Measures percentage of chosen bill from base charge part of total bill
- Hence looks at stability of revenue under conditions of disruption of sales



Copyright (c) 2016 Environmental Finance Center at the University of North Carolina, Chapel Hill.



Copyright (c) 2016 Environmental Finance Center at the University of North Carolina, Chapel Hill.



Copyright (c) 2016 Environmental Finance Center at the University of North Carolina, Chapel Hill.



For More Information

David Tucker
Project Director
Environmental Finance Center
University of North Carolina
919-966-4199
drtucker@sog.unc.edu

Shadi Eskaf
Senior Project Director
Environmental Finance Center
University of North Carolina
919-962-2785
eskaf@sog.unc.edu



www.efcnetwork.org



UNC
ENVIRONMENTAL FINANCE CENTER