

Communicating and Investing in Natural Capital using Water Rates

Water utilities depend on natural capital like watersheds, forests and river systems as a vital component of their drinking water infrastructure. As the primary source of revenue for water utilities, water rates have traditionally included a single base rate and/or user charges such as consumption charges.

To better communicate the value and magnitude of investments in their natural capital assets to ratepayers and other stakeholders, several utilities have begun to include natural capital surcharges in their rates structures. Variously called “Watershed Rates” or “Watershed Protection Fee,” the following examples show that natural capital surcharges provides utilities with a useful communication and investment tool.

Central Arkansas Water, Arkansas

Name:	Watershed Protection Fee
Implemented:	2009
Amount:	\$5.40 - \$8.16 per ratepayer per year depending on meter type.
Communication Strategy:	Regular outreach to stakeholders from CEO and utility management.
Investment Strategy:	Acquisitions and source water protection, monitoring, management.



Central Arkansas Water

Central Arkansas Water (CAW), an independent utility that services Little Rock, North Little Rock and other small communities in the area, recognizes that keeping their water source protected and clean in the present will save future costs. In 2009, CAW implemented a “Watershed Protection Fee,” a monthly base rate that increases with meter size. The fee is \$0.45 per month for 5/8- and 3/4-inch meters, \$0.68 per month for a 1-inch meter and so on. This fee funds their Watershed Management Program, which includes acquisition of land around Lake Maumelle, as well as other capital and operational costs such as environmental regulation by the county and USGS water quality monitoring. The

Watershed Protection Fee, which has helped CAW to successfully meet their initial goal of acquiring 1,500 acres, will cease once the utility has raised a \$3 million pool of funds, then be reintroduced once the pool lowers to \$2 million. CAW has received support and praise from city councils in the area and most ratepayers, although there has been some pushback from wholesale customers, who are now required to track their customers’ meter sizes in order to appropriately calculate the fee. To CAW’s knowledge, they are the only water utility in the region that has implemented a rates-based watershed protection fee.

Acknowledgments: Jonathan Long, P.E., Watershed Administrator, and Robert Hart, P.E., Technical Services Officer, Central Arkansas Water.

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City of Raleigh, North Carolina

Name:	Watershed Protection Fee
Implemented:	2005
Amount:	\$0.0748/CCF (approximately \$5.40 per ratepayer per year)
Communication Strategy:	Community outreach done through local Land Trust and media.
Investment Strategy:	Nutrient monitoring and cleanup, long-term maintenance and restoration of utility-owned land.



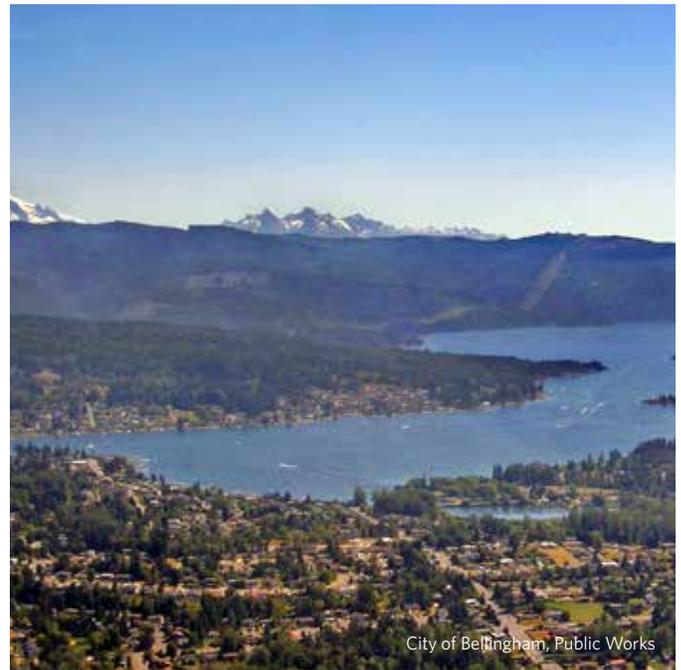
Raleigh faces unique challenges for source water protection, including its physical distance from Falls Lake, the city’s primary water source, and a source watershed almost entirely in private ownership. In 2005, prompted by local land trusts and the declining quality of Raleigh’s water, the City of Raleigh began charging an impact fee for new utility connections that was used to acquire property around their drinking water intake. As the program grew, it evolved into a line item on ratepayer’s bills, a “Watershed Protection Fee” of \$0.0748 per CCF (10 cents per 1000 gallons), or about 45 cents extra on a monthly bill. Since it was implemented in November 2011, the fee has fulfilled the city’s revenue goals and is expected to generate \$1.8 million for watershed protection in 2012. Also, thanks to community outreach

efforts on the part of Raleigh and the Conservation Trust for North Carolina, the fee has been met with little opposition, especially among residential ratepayers. For water utilities considering similar programs, Ed Buchan, Environmental Coordinator for the City of Raleigh, notes “I would strongly recommend working directly with local land trusts to develop partnerships and identify areas of collaboration throughout the watershed. This allows the program to be flexible and sustainable with multiple sources of revenue (rather than just relying on a state/ federal grant fund). It is also important to send clear and concentrated messages to constituents about the value of clean water, utilizing local media.”

Acknowledgments: Edward Buchan, Environmental Coordinator, Public Utilities, City of Raleigh.

City of Bellingham, Washington State

Name:	Watershed Rate
Implemented:	2001
Amount:	<p>\$144 per year for unmetered city residents.</p> <p>\$60 + \$.64/CCF volume rate per year for metered city residents.</p> <p>\$90 + \$.96/CCF per year for residents outside the city.</p>
Communication Strategy:	Public process, public hearing.
Investment Strategy:	Nutrient monitoring and cleanup, long-term maintenance and restoration of utility-owned land



City of Bellingham, Public Works

As the source of Bellingham’s drinking water, the Lake Whatcom Watershed is monitored carefully for high nutrient runoff from residential development and other sources which can result in algae problems. In 2001, Bellingham’s municipal utility implemented a system of “watershed rates” to fund land acquisition and preservation measures in the Lake Whatcom Watershed. Activities funded by the rates include identification, cleanup and long-term maintenance and restoration of utility-owned land. The watershed rates are also used as a communication tool to help ratepayers understand the role of natural systems in filtering pollutants and distributing nutrients more cost effectively than traditional built infrastructure. The watershed rate for unmetered customers is \$12 per month. The watershed rate for metered customers is the sum of a \$5 per month base

rate plus a volume rate of 64 cents per 100 cubic feet of water used. The base and volume rate total for metered customers is expected to be analogous to the fixed rate for unmetered customers. Rates are all increased by 50% for customers outside the City. Before it was implemented, the fee structure and Acquisition Program went through a public process, including a public hearing before City Council. The fee has received little opposition from ratepayers and a recent fee increase passed unanimously in the City Council. According to Clare Fogelsong, Environment Resources Manager for the City of Bellingham, this success has been thanks to “...proactive communication with our ratepayers, to make it clear that protecting source water is protecting the community. In the long run it is cheaper to protect our source water now, rather than pay for problems in the future.”

Acknowledgments: Clare Fogelsong, Environmental Resources Manager, Public Works, City of Bellingham.

Summary of Utility Watershed Management Programs in the U.S. *

Program Name (location)	Number of Users	Fee Amount	Average Fee per Household	% of Average Bill	Rate Design	Separate Fee on Bill?	Revenue Generation	Year of Introduction	How was the Program Adopted
Aurora Water (Aurora, CO)	300,000	No fee. Included in city budget.	N/A	N/A	N/A	N	\$500,000 over two years	2011	City Council
Bull Run Watershed Habitat Conservation Plan (Portland, OR)	900,000	No fee. Included in city and USFS budget.	N/A	N/A	N/A	N	\$500,000 per year	2007	Congress (1996 Bull Run Management Act)
Cedar River Watershed Habitat Conservation Plan (Seattle, WA)	1,400,000	No fee. Part of utility budget.	N/A	N/A	N/A	N	> \$50m over 20 years	N/A	City Council
Central Arkansas Water Watershed Management Program (Little Rock, AK)	400,000	\$0.45 per month per 5/8" or 3/4" equivalent meter.	\$0.45 per month	+1.1%	Fixed Fee	Y	\$1m (approx) per year	2009	Utility Board of Commissioners
Common Waters Partnership (Upper Delaware Watershed)	15,000,000	Pending.	N/A	N/A	N/A	-	N/A	Pending	Common Waters Fund
Conserve to Enhance (Tuscon, AZ)	535,000	No fee. Voluntary checkbox on bill.	N/A	N/A	N/A	-	N/A	2012	Non-profit
Crooked River/ Portland Water District Payment for Ecosystem Services (Portland, ME)	200,000	No fee. Grant funded.	N/A	N/A	N/A	-	N/A	2009	Manomet Center for Conservation Sciences
Forest to Faucets (Denver, CO)	1,300,000	\$0.04 per 1,000 gallons.	\$0.33 per bill	+1%	Volumetric Rate	-	\$3.3m per year over 5 years	2012-2013	Utility and USFS partnership
Green River Watershed Management Plan (Tacoma, WA)	300,000	No fee. Included in Tacoma Water budget.	N/A	N/A	N/A	N	N/A	2006	Utility
Lake Whatcom Watershed Land Acquisition and Preservation Program (Bellingham, WA)	88,000	\$5 per month + \$0.64 per CCF	N/A	N/A	Base rate + volumetric rate	Y	\$25.3m since 2001	2001	City Council
McKenzie Watershed Drinking Water Source Protection Plan (Eugene, OR)	200,000	To be determined.	N/A	N/A	N/A	N	\$200,000 - \$250,000 per year	2013	Utility
Salt Lake City Watershed Management Plan (Salt Lake City, UT)	400,000	\$1.50 per meter per month.	\$1.50 per month.	+3.75%	Fixed Fee	N	\$1.5m per year	1988	City Council
San Antonio Source Water Protection Program (San Antonio, TX)	1,300,000	1/8-cent sales tax over five years (2005 - 2010).	N/A	N/A	N/A	N	\$45m (2005), \$90m cap (2010)	2005, 2010	Voters
Upper Neuse Clean Water Initiative (Raleigh, NC)	600,000	\$0.0748 per CCF.	\$0.40 per month	+1%	Volumetric Rate	Y	\$1.8m per year	2011	City Council
Water Source Protection Program (Santa Fe, NM)	32,000	\$0.13 per 1,000 gallons per month.	\$0.65 per month	+1.6%	Volumetric Rate	N	\$200,000 per year	N/A	City Council
Watershed and Environmental Improvement Program (San Francisco, CA)	2,500,000	No fee. Included in San Francisco PUC budget.	N/A	N/A	N/A	N	\$50m over 10 years	2005	Utility
Watershed Management (Los Angeles, CA)	666,000	Included in Los Angeles DWP budget.	N/A	N/A	N/A	N	N/A	N/A	Utility and City Council

*Please contact Rowan Schmidt (rschmidt@eartheconomics.org) or Sofi Delgado-Perusquia (sofi@usendowment.org) with any questions, comments or additions to this list. For updates to this table, please visit <http://www.usendowment.org/watersheddatabase.html>