

Overloaded and Underfunded: Knoxville's Aging Infrastructure Needs a Clean Water Trust Fund

America's clean water systems – the pipes, sewers and treatment facilities that keep our society afloat – are in serious trouble. The federal government estimates that every year we fall more than \$20 billion short of what is needed to maintain and improve our water infrastructure.¹

States and localities, grappling with tight budgets and projected future needs far beyond projected funding capabilities, have traditionally relied on the federal government to support continued access to this essential public resource. However, money for the federal Clean Water State Revolving Fund, which supports state and local efforts, is drying up, leaving governments, utilities, and citizens struggling to clean up the mess.

Across the country, the consequences of inadequate infrastructure investment are already being felt – as many as 75,000 times a year, according to the Environmental Protection Agency, which says that sewage overflows from poorly-designed or degraded systems emit 1.26 trillion gallons of untreated filth annually.² These overflows, which cost more than \$50 billion a year in cleanup costs, are not sent to some faraway wilderness; they are spilling into our local streams and beaches, our homes, and the source water we eventually drink.³

In Your Backyard: For many years, during heavy rains, residents of Knoxville experienced the stench of raw sewage overflowing into their backyards, streams and creeks. Rainwater entering the cracks in the aging sanitary sewer pipes is enough water to overload the sewer system's capacity. In 2001 and 2002, Knoxville had 449 sewer overflows. During heavy rains over just two weekends in February 2003, 115 overflows spilled nearly 6 million gallons of sewage into nearby waterways.^{4,5} Untreated sewage in streams and creeks violates federal clean water standards. The frequency and magnitude of the overflows in Knoxville prompted the city and state to fine the Knoxville Utilities Board, manager of the city's wastewater system, hundreds of thousands of dollars for violating water quality standards. EPA ordered the KUB to address the problems in the system.



In 2004, KUB released a plan to spend \$530 million over a 10-year period to improve the wastewater system and reduce the number of sewage overflows. The plan called for the construction of four massive collection tanks, to increase the system's capacity. The plan also called for the repair of 200 miles of the 1300-mile network of sewer lines by 2014.⁶ As of late 2006, the first collection tank was built, and KUB had repaired some chronically problematic areas of the system. The upgrades appear to be helping because wet weather overflows declined by 82 percent from 154 in 2004 to 28 in 2005. Rainfall also decreased by 34 percent in 2005.⁷

A unique component of KUB's plan involved Knoxville residents by creating a steering committee of environmentalists and neighborhood activists to advise KUB throughout the process. Although providing a forum for public involvement was important, the fact is that residents of Knoxville are footing the bill for the necessary but expensive upgrades to their sewer system. After a se-



ries of rate increases in the 1990's and in 2002, residents faced a 50 percent rate hike in 2005 and another increase in 2007.⁸ Absent a much-needed increase in federal funding, families in Knoxville will continue to bear the deluge of rate increases to keep their sewer system up to federal standards.

EPA's most recent assessment of the Hiwassee, Holston, Lower Clinch, Lower French Broad, Lower Little Tennessee, Middle Tennessee-Chickamauga, Pigeon, Tuckasegee, Upper Little Tennessee and Watts Bar Lake watersheds found 287 individual impairments to water quality, including fecal coliform bacteria, other pathogens and solid trash.⁹

Across Tennessee: According to EPA, 31 percent of assessed river miles and 23 percent of assessed lakes in Tennessee suffer from impaired water quality.¹⁰ Data from the state's Environment and Conservation Department show that 68 municipally owned sewer systems in Tennessee are under some type of state or federal order to bring their systems up to standards, including Knoxville, Nashville, Shelby County, Hamilton County and many smaller areas.¹¹

Yet while the needs are apparent, the funding to keep our water clean and safe is drying up. Partisan divisions in the annual appropriations process keep resources from reaching our communities. While the amount that a single family pays for wastewater services has increased by about double the rate of inflation nationwide,¹² overall federal contributions to the State Revolving Fund have gone the other way. In Tennessee, the state's clean water funding efforts have decreased by 47.8 percent since 1991 – nearly 66 percent when adjusted for inflation.¹³

Tennessee's current Intended Use Plan and Priority List shows the state has a need for \$417.6 million in wastewater infrastructure spending, a sum significantly smaller than the federal 2007 appropriation of \$15.5 million.¹⁴ EPA's most recent Clean Watershed Needs survey determined that Tennessee would require more than \$1.07 billion in infrastructure funding over the next 20 years.¹⁵

Time for a Federal Clean Water Trust Fund

Given the fickle year-to-year availability of clean water funding and the urgency of our needs, we have to find a new solution. Our problems are not just local; watersheds are linked, and one community's water flows downstream to become another's. Neither are our resources; water belongs to all of us, and clean, healthy, affordable public water is every community's right. So the best answer would cover Tennessee and the entire nation, ensure steady, reliable funding to meet future needs, liberate the process from partisan bickering, and avoid penalizing ratepayers.

A federal clean water trust fund would do just that, guaranteeing clean water for generations to come. By sidestepping the contentious appropriations process, a trust fund would safeguard our infrastructure, our environment, and our economy – all without adding to the national debt. For more information on keeping clean water a reality, consult Food & Water Watch's report *Clear Waters: Why America Needs a Clean Water Trust Fund*, available at www.foodandwaterwatch.org/water/americaswater/clearwaters.

Endnotes

- ¹ "The Clean Water and Drinking Water Gap Analysis." Office of Water, U.S. Environmental Protection Agency, Sept. 30, 2002. Available at www.epa.gov/safewater/gapreport.pdf
- ² "Implementation and Enforcement of the Combined Sewer Overflow Control Policy." Office of Water, U.S. Environmental Protection Agency, December 2001. Available at: http://cfpub.epa.gov/npdes/cso/cpolicy_report.cfm
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- ⁷ Barker, Scott. "KUB keeps up the PACE." *Knoxville News-Sentinel*. October 23, 2006.
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- ⁹ "Surf Your Watershed." Office of Water, U.S. Environmental Protection Agency. Available at: <http://cfpub.epa.gov/surf/locate/index.cfm>
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- ¹¹ "Sewer fixes mandatory, costly." *Knoxville News-Sentinel*. June 3, 2008.
- ¹² "Residential Service Charges Outpace Inflation for Sixth Straight Year." National Association of Clean Water Agencies, 2007.
- ¹³ "Clean Water State Revolving Fund Allotments." Office of Water, U.S. Environmental Protection Agency, Apr. 4, 2007. Available at www.epa.gov/owm/cwfinance/cwsrf/cwsrfallots.pdf



¹⁴ "Intended Use Plan, Clean Water State Revolving Fund." Tennessee Department of Environment and Conservation. Available at: www.tennessee.gov/environment/srf/pdf/cwiup.pdf

¹⁵ "Clean Watershed Needs Survey 2004, Report to Congress." Office of Wastewater Management, U.S. Environmental Protection Agency, January 2008. Available at: www.epa.gov/owm/mtb/cwns/2004rtc/toc.htm

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