

Water's Worth It Fact Sources

My Respect

In the U.S. alone, an estimated 76% of the population depends on nearly 15,000 water resource recovery facilities and a vast network of hidden infrastructure for wastewater services. An additional 56 million people are expected to connect to these centralized systems by 2032. *Source: ASCE 2017 Infrastructure Report Card*, <https://www.infrastructurereportcard.org/cat-item/wastewater/>. Retrieved July 25, 2018.

Over the next 20 years, the estimated needs include a combined USD \$4.8 trillion for U.S. drinking water and wastewater infrastructure and USD \$271 billion for U.S. stormwater infrastructure. Roughly 90% of Americans strongly support increased investment in these clean water systems. *Sources: Value of Water Campaign*, <http://thevalueofwater.org/the-facts/challenge-and-opportunity>. Retrieved July 25, 2018. *ASCE 2017 Infrastructure Report Card*, <https://www.infrastructurereportcard.org/cat-item/wastewater>. Retrieved July 25, 2018.

Value of Water Campaign, National Public Opinion Poll, May 2017, http://thevalueofwater.org/sites/default/files/May%202017%20National%20Poll%20Findings_Value%20of%20Water%20Campaign_0.pdf. Retrieved July 25, 2018.

WEF Stormwater Report, <http://stormwater.wef.org/2016/02/epa-reports-stormwater-funding-needs>. Retrieved July 25, 2018.

Similarly, the estimated needs in Canada are CAD \$207 billion for drinking water, CAD \$234 billion for wastewater, and CAD \$134 billion for stormwater. Canadians also rank water (83%), wastewater (76%), and stormwater (57%) infrastructure as top funding priorities. *Sources: The Canadian Infrastructure Report Card, 2016*, http://www.canadainfrastructure.ca/downloads/Canadian_Infrastructure_Report_Card_Key_Messages_2016.pdf. Retrieved July 25, 2018.

RBC Canadian Water Attitudes Survey, 2017, <http://www.rbc.com/community-sustainability/environment/rbc-blue-water/water-attitude-study.html>. Retrieved July 25, 2018.

Thirty large U.S. water and wastewater utilities, with support from ratepayers, will contribute USD \$524 billion to the economy and create nearly 300,000 jobs over the next decade through essential water and wastewater infrastructure improvement projects. *Source: Value of Water Campaign*, <http://thevalueofwater.org/the-facts/challenge-and-opportunity>. Retrieved July 25, 2018.

My Effort

98%: the amount of improperly flushed items like baby wipes, oils and greases, feminine hygiene products, and dental floss that clog up pipes and treatment systems, resulting in costly damage from back-ups and broken, overstressed equipment. *Source: "Why Are You Flushing that Down the Toilet?" The Providence Journal, 10/2/17*. <http://www.providencejournal.com/lifestyle/20171002/why-are-you-flushing-that-down-toilet>. Retrieved July 30, 2018.

My Passion

Water workers are in relatively short supply. Thousands of professionals are expected to retire in the coming years with not enough young, qualified talent to replace them. In some cases, this “silver tide” of retirements is resulting in staffing vacancies of up to 50%. Source: Kane, Joseph and Tomer, Addie. *Renewing the Water Workforce: Improving Water Infrastructure and Creating a Pipeline to Opportunity*, June 2018. <https://www.brookings.edu/wp-content/uploads/2018/06/Brookings-Metro-Renewing-the-Water-Workforce-June-2018.pdf#page=10>. Retrieved July 25, 2018.

The water sector offers competitive and equitable wages, high employment rates, lower formal educational barriers, and opportunities to advance and develop marketable, transferable skills that cut across multiple industries, occupations, and disciplines. Source: Kane, Joseph and Tomer, Addie. *Renewing the Water Workforce: Improving Water Infrastructure and Creating a Pipeline to Opportunity*, June 2018. <https://www.brookings.edu/blog/brookings-now/2018/06/28/water-infrastructure-employment-a-pipeline-to-opportunity/>. Retrieved July 25, 2018.

In the U.S. alone, the water sector is projected to have about 220,000 job openings—on average each year—from 2016 to 2026. Source: Kane, Joseph and Tomer, Addie. *Renewing the Water Workforce: Improving Water Infrastructure and Creating a Pipeline to Opportunity*, June 2018. <https://www.brookings.edu/wp-content/uploads/2018/06/Brookings-Metro-Renewing-the-Water-Workforce-June-2018.pdf#page=12>. Retrieved July 25, 2018.

My Health

You can live several weeks without food, but only a few days without water. That’s because your body is 65-70% water – your blood and lungs (83%), brain and heart (73%), muscles and kidneys (83%), skin (65%). Even your bones are about 31% water! Source: U.S. Geological Survey, <https://water.usgs.gov/edu/propertyyou.html>. Retrieved July 25, 2018.

Readers of The British Medical Journal ranked water and wastewater treatment as the world’s most important medical milestone. Antibiotics was a close second while anesthesia came in third. Sources: *The British Medical Journal*, <https://www.bmj.com/content/334/7585/111.2>. Retrieved July 24, 2018. Katz, David, ABC News Medical Unit, 1/18/07. “Sanitation a Top Medical Milestone.” <https://abcnews.go.com/Health/GlobalHealth/story?id=2805299&page=1>. Retrieved August 1, 2018.

If we did nothing other than provide access to clean water and sanitation, without any other medical intervention, we could save two million lives a year. Source: Childs, Dan and Kasangra, Susan. 2007. Sept 20; <http://abcnews.go.com/Health/TenWays/story?id=3605442&page=1#.T76BZu2KyxE>. Retrieved July 24, 2018.

Early investments in clean water technologies were not only a boon to public health, but were tremendously cost effective in doing so. It is estimated that these technologies yielded an estimated USD \$23 in benefits for every USD \$1 invested. Source: *The Water and Health Quality Council*. <https://www.waterandhealth.org/newsletter/chlorination.html>. Retrieved July 24, 2018.

My Future

The used water you send down your drain contributes organic matter to water resource recovery facilities, where it is consolidated, treated, and transformed into biosolids—a natural, safe, and endlessly renewable fertilizer. Source: U.S. Environmental Protection Agency, <https://www.epa.gov/biosolids>. Retrieved July 15, 2018.

An energy-efficient wastewater sector could result in 95% reduced emissions and up to USD \$40 billion in net savings. One of the world's first energy neutral facilities, in Marselisborg, Denmark, produces 40% more electricity than it needs to operate. Sources: Decker, Patrick. "Powering the Wastewater Renaissance: How to Upgrade an Industry & Cut Emissions in Half at Neutral to Negative Cost." 1/20/16. <http://thevalueofwater.org/content/powering-wastewater-renaissance-how-upgrade-industry-cut-emissions-half-neutral-negative>. Retrieved July 30, 2018.

State of Green. "Marselisborg, Denmark – from wastewater plant to power plant." <https://stateofgreen.com/en/partners/aarhus-vand/solutions/marselisborg-wwtp-energy-neutral-water-management/>. Retrieved July 15, 2018.