PSC Water Currents

The water conservation and efficiency newsletter of the Public Service Commission of Wisconsin

April 15, 2013

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WaterSense Promotes Sprinkler Spruce-Up and Water-Smart Landscaping This Spring

Though it seems spring is reluctant to arrive this year in Wisconsin, it's still a good time to think about outdoor water use. A little planning and maintenance now can help lower costs later this summer. Just one broken or missing sprinkler head can waste as much as 17,000 gallons of water over the course of a four-month irrigation season, so before you begin watering this spring, spruce up your irrigation system by remembering four simple steps - inspect, connect, direct, and select:

- **Inspect.** Check your system for clogged, broken, or missing sprinkler heads. If you're not the do-it-yourself type, go with a pro-look for an irrigation professional certified through a WaterSense labeled program to help you maintain your system.
- **Connect.** Examine points where the sprinkler heads connect to pipes or hoses. If water pools in your landscape or you have large wet areas, you could have a leak in your system. A leak about as small as the tip of a ballpoint pen (1/32nd of an inch) can waste as much as 6,300 gallons of water per month.
- **Direct.** Are you watering the driveway, house, or sidewalk instead of your yard? Redirect

sprinklers to apply water only to the landscape.

- **Select.** An improperly scheduled irrigation controller can waste a lot of water and money. Update your system's schedule with the seasons, or select a WaterSense labeled controller to take the guesswork out of scheduling.

Of course, starting out with a water-smart landscape can reduce or even eliminate altogether the need to water. The WaterSense Outdoor page includes information on how you can plan a water-smart landscape by using regionally appropriate, low water-using and native plants, grouping plants according to their water needs, recognizing site conditions and planting appropriately, placing turfgrass strategically, and minimizing steep slopes.

Joint Proposal Seeks Greater Accuracy in New Water Meters

In a proposal designed to reduce water wasted due to low level leaks, the Natural Resources Defense Council (NRDC) recently joined forces with a group of utilities in submitting a proposal to the American Water Works Association (AWWA) to revise national accuracy standards for new water meters. The Austin Water Utility and San Antonio Water System of Texas, along with American Water, the nation's largest publicly traded water and wastewater utility company, partnered with the NRDC on the proposal, while East Bay Municipal Utility District of California and the New York City Department of Environmental Protection served in a supporting role. NRDC and its utility partners are proposing revisions to AWWA standards for three of the most common meter types used to measure customer water use: positive displacement, single-jet, and multi-jet. The minimum flow rates at which meters are required to be tested have not changed since AWWA first proposed a standard for cold water meters in 1921. Water meter technology has improved significantly since that time, and the proposal lays out a "leak detection flow test" whereby each of the specified meter types would be required to meet an accuracy of at least 80 percent for meter registration at "leak detection test flows" for each meter type and size. These low level test flows would help ensure that leaks such as those from a dripping faucet, a running toilet, or a leaky irrigation system are fully recorded by water meters. To help manufacturers minimize test costs, the proposal allows a representative sample of meters to be tested.

According to Tracy Quinn, NRDC Water Policy Analyst, "Water leaks are incredibly common, often lurking unseen in our homes and businesses and wasting an enormous amount of water. The costs for leaks not captured by meters are passed on to all customers and result in higher rates and more frequent rate increases. We can fix this by ensuring that utilities are supplied with more accurate water meters that can better detect hidden leaks. Stronger accuracy standards will lead to the widespread installation of more accurate meters, and major water savings will follow when homeowners fix leaks identified. At a time when we cannot afford to let a drop go to waste, these water saving measures matter more than ever."

To view the joint proposal, go to http://docs.nrdc.org/water/files/wat_13032601a.pdf.

Wisconsin Geological and Natural History Survey Releases Study of Human Virus Occurrence in Deep Water Supply Wells

A recently released, collaborative study involving scientists from the Wisconsin Geologic and Natural History Survey (WGNHS), the US Geological Survey and the Marshfield Clinic reveals that groundwater can become contaminated by viruses from untreated sewage. Over the course of a year, the scientists examined the occurrence of human intestinal viruses (noroviruses, adenoviruses, enteroviruses, etc.) in Madison's deep water supply wells. It was long believed these wells were protected from viral contamination by a confining layer of shale located above the wells. However, during 2007 and 2008, investigators sampled six deep municipal wells and detected viruses at least twice in each of them. They also collected virus samples from local lakes and from untreated sewage. Based upon statistical analysis of the occurrence of these viruses over time, they determined there was a correlation between virus levels in sewage, lakes and groundwater, indicating that the most likely source of viruses in the wells was leakage of untreated sewage from Madison's sewer system. While these viruses pose no threat to public health in cities such as Madison, where the public water supply is disinfected, a potential threat does exist in municipalities that use groundwater as a drinking water source but do not disinfect their water supply.

While federal and state regulations do not require disinfection of municipal groundwater, all but 60 of Wisconsin's municipal groundwater systems currently do disinfect their well water. In a study of 14 communities that do not use disinfection, investigators attributed 6% to 22% of acute gastrointestinal illness incidences to virus-contaminated drinking water, with as much as 63% of incidences involving children under the age of five linked to higher concentrations of norovirus in their drinking water. WGNHS's study publication can be found at: Municipal Drinking Water Safety.

Study Uses PSC Data to Help Examine Trends in Utility Operating Revenues

Using financial data collected from local utilities and state agencies, University of North Carolina's Environmental Finance Center examined changes in utility operating revenues between fiscal years 2000 and 2012 for 2,838 utilities in six states, including 567 in Wisconsin. The study was designed to provide evidence on whether the nation's overall downward trend in per capita water consumption translated into declining revenues for these utilities. Researchers found that, in every state examined, the median change to operating revenues was almost always zero or positive, regardless of year.

From year-to-year in the past decade, operating revenues for at least half of the utilities increased, despite a downturn in the economy, severe droughts and changes to customer water use patterns. However, the rate of increase was not consistent over time, and a greater percentage of the study utilities saw their operating revenues grow more slowly or decline between FY 2008 and FY2010. Wisconsin utilities appear to have fared better than many, with a lower percentage of our utilities seeing declining revenues over that more recent period. The Center intends to build on this analysis in the next phase of the study by comparing utilities' annual revenues to their expenses and tracking changes to these ratios over time. The operating revenue report can be found on the University of North Carolina Environmental Finance Center website.

About this newsletter

Water Currents is published by the Public Service Commission of Wisconsin to provide information about water conservation-related news and events in Wisconsin. The newsletter is compiled and edited by Denise Schmidt, PSC Water Conservation Coordinator, (608) 266-1282.

To submit information for consideration in future newsletters, send an email to Denise Schmidt. Include your name, organization, and contact information in the body of the message.

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