



# SUPPLY LINES WITH THE SOURCE



Newsletter of the NHDES Drinking Water & Groundwater Bureau  
on the web at [www.des.nh.gov](http://www.des.nh.gov)

Winter 2016

## When in Drought: Be Prepared

**D**rought is a slow-moving natural disaster. While drought impacts may not be as immediately obvious as tornado, hurricane or earthquake damages, its devastation can take a toll on everything from the environment to the economy to human health. Although drought effects can be severe, there are steps that water systems and municipalities can take to plan, prepare and potentially mitigate its impacts.

During non-drought conditions, water systems can proactively diversify their water sources, add back-up sources, install emergency interconnections with other water systems and develop integrated water resource management plans. Systems can also establish routine measures to ensure they are using water efficiently, such as installing, properly calibrating and reading meters as well as implementing a leak detection and repair program.

As a drought is developing, systems have a responsibility to evaluate their water resources and water demand and take appropriate actions. Systems and municipalities should enact and effectively notify residents about water use restrictions or bans. Systems should also encourage both indoor and outdoor water conservation practices and provide educational resources or incentives to customers.

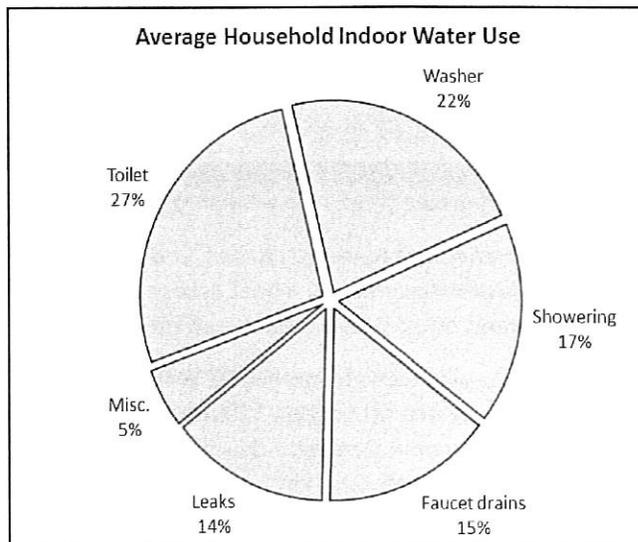
With increased planning, investing and conservation, systems and communities will be better prepared to withstand drought events. To learn more about current drought conditions and available resources, visit the Drought Management Program webpage at <http://des.nh.gov/organization/divisions/water/dam/drought/index.htm> ♦



Portsmouth,  
New Hampshire

## WaterSense Makes Sense

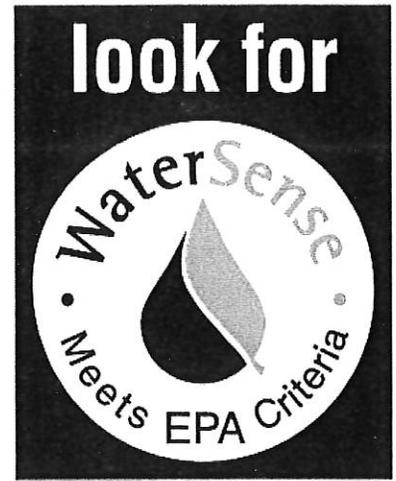
**O**n average, each New Hampshire resident uses 63 gallons of water per day for indoor, domestic uses. In the face of drought conditions and increased demands on water resources, water systems and municipalities have a great incentive to encourage residents to use water efficiently. The pie chart shows the major categories of household indoor water use. Each category of water use presents an opportunity for action. Residents can be reminded to check for silent toilet leaks, as well as other leaks in the home, and replace old fixtures with WaterSense products. WaterSense-labeled products include faucets, faucet aerators, showerheads, toilets and urinals. These products are independently certified to perform as well as, if not better than, standard models and to use at least 20 percent less water. Better yet, a system or municipality can become a WaterSense partner and join a national network of utilities, manufacturers, retailers, (WaterSense, continued on pg 2)



<http://thevalueofwater.org/the-facts/waters-value>

(WaterSense, continued from pg 1)

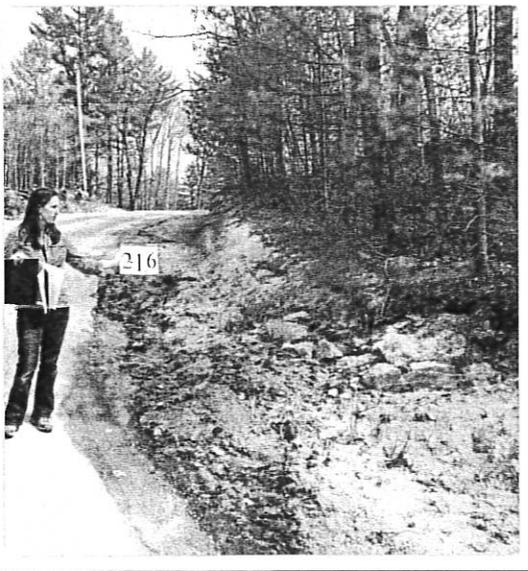
distributors, builders and communities that are promoting water efficiency. It's free and easy to join this partnership program sponsored by the U.S. Environmental Protection Agency (EPA), and partners have exclusive access to outreach and marketing materials, including public service announcements, fact sheets, brochures, press releases and bill stuffers. To learn more about water efficiency and the WaterSense Program and to view a list of New Hampshire WaterSense partners, visit <http://www.nhisforwater.org> ♦



## Watershed Restoration Plan Provides Blueprint to Protect Lake Waukewan

Lake Waukewan is both a recreational resource for the Town of Meredith and the sole source for its municipal water system, which serves approximately 3,000 residents and downtown businesses. The lake, however, suffers from elevated bacteria, cyanobacteria, low pH and low dissolved oxygen. As with most New Hampshire lakes, the primary pollution source in the Lake Waukewan watershed is polluted runoff or nonpoint source (NPS) pollution.

The Lake Winnepesaukee Association, a group of local lake associations, residents and community officials worked for three years with scientists and NHDES to develop the Lake Waukewan and Winona Watershed Restoration Plan. (Lake Winona empties into Lake Waukewan by way of the Snake River.) The plan was developed with the help of FB Environmental Associates and DK Water Resources. It sets out a long-term strategy to address water quality problems in both lakes by focusing on reducing sediment and nutrient loading to the waterbodies.



*Erosion in the Lake Waukewan watershed*

Developing the plan required understanding the lake's current water quality, setting water quality goals regarding nutrient (phosphorus) loading, predicting future water quality trends based upon land use changes, identifying ways to reduce nutrient inputs and establishing ongoing monitoring to evaluate how well those strategies are working.

The plan identifies high-priority sites to establish best management practices (BMPs) to reduce sediment and nutrient loading to the lakes. Of the top 12 sites, ten would involve

vegetating or armoring roadside ditches, and the others call for resurfacing and grading a parking area and a boat access area, as well as constructing rain gardens and other stormwater runoff improvements.

Funding for the plan came from NHDES' Watershed Assistance Grant Program (Clean Water Act Section 319 funds from EPA), the Town of Meredith Waukewan Watershed Advisory Committee, the Windy Waters Conservancy and volunteer in-kind matches.

✱ For more information or to download the plan, visit <http://www.winnepesaukee.org/> ♦

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# Emerging Contaminants of Concern in Drinking Water

Public water systems are accustomed to monitoring for an established list of contaminants that have drinking water standards set by EPA or NHDES. Recent advances in laboratory analytical technology have made the analysis of additional natural and synthetic chemicals in drinking water possible at detection limits that are 100 to 1,000 times lower than the concentrations of contaminants typically analyzed.

Recently, NHDES requested that community water systems and non-transient water systems voluntarily sample their water sources for two emerging contaminants of concern, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). These two chemicals have been found in multiple regions of New Hampshire. In May 2016, EPA issued an advisory stating that short-term exposure to PFOA, PFOS or a combination of the two at a concentration over 70 parts per trillion presents a health risk to certain sensitive populations. NHDES has adopted an emergency rule to establish an ambient groundwater quality standard that is consistent with EPA's Public Health Advisory. PFOA and PFOS are the only two compounds for which EPA has issued health advisory levels out of over 20 perfluorinated compounds that laboratories can typically analyze for.

In New Hampshire, perfluorinated compounds have been found in groundwater near two industries that emitted these compounds into the air, near two sites where these compounds were used to extinguish fires associated with fuels, and in groundwater monitoring wells sampled in very close proximity to landfills. Additionally, sources of water for three large community water systems and sources of water for several small community water systems have

(Emerging, continued on pg 4)

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## DWGB Calendar of Events & Deadlines: December 2016 - May 2017

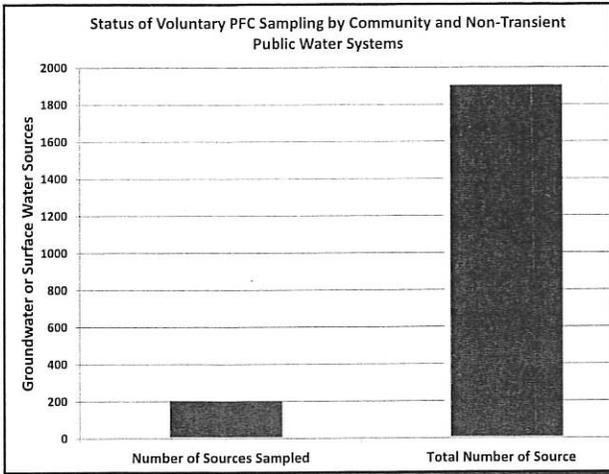
- December 16 Asset Management Grant applications due, contact Luis Adorno at 603-271-2472 or [luis.adorno@des.nh.gov](mailto:luis.adorno@des.nh.gov) see <http://des.nh.gov/organization/divisions/water/dwgb/asset-management/documents/nhdes-w-03-021.docx>
- January 31 Groundwater Discharge Permit Annual Monitoring Summaries due, contact Mitchell Locker at 603-271-2858 or [mitchell.locker@des.nh.gov](mailto:mitchell.locker@des.nh.gov)
- January 31 Large Groundwater Withdrawal Permit Annual Monitoring Reports due, contact Christine Bowman at 603-271-8866 or [christine.bowman@des.nh.gov](mailto:christine.bowman@des.nh.gov)
- March 10 Permit To Operate Applications available on the OneStop, contact Jane Murray at 603-271-3544 or [jane.murray@des.nh.gov](mailto:jane.murray@des.nh.gov) see <http://www2.des.state.nh.us/DESOnestop/BasicSearch.aspx>
- X March 24 N.H. Water and Watersheds Conference, Plymouth State University, Plymouth, see <https://www.plymouth.edu/center-for-the-environment/2017-nh-water-watershed-conference/>
- May 1 Drinking Water State Revolving Fund (DWSRF) Pre-Applications available, contact Johnna McKenna at 603-271-7017 or [johnna.mckenna@des.nh.gov](mailto:johnna.mckenna@des.nh.gov) see <http://des.nh.gov/organization/divisions/water/dwgb/capacity/dwsrf.htm>
- May 10 25th Annual Drinking Water Festival and 4th Grade Science Fair, contact Lara Hooper at (603) 271-4071 or [lara.hooper@des.nh.gov](mailto:lara.hooper@des.nh.gov)
- X May 18 NHDES Drinking Water Source Protection Conference, Grappone Conference Center, Concord, contact Pierce Rigrod at [pierce.rigrod@des.nh.gov](mailto:pierce.rigrod@des.nh.gov) 603-271-0688 or Amy Hudnor at 603-271-2950 or [amy.hudnor@des.nh.gov](mailto:amy.hudnor@des.nh.gov) see <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/workshop.htm>
- Anytime Record Drawing Grant applications accepted <http://des.nh.gov/organization/divisions/water/dwgb/capacity/documents/record-drawing-grant-app.doc>

### To see event calendars for additional opportunities please visit:

Granite State Rural Water Association at <http://www.granitestatewater.org>

New England Water Works Association at <http://www.newwa.org>

(Emerging, continued from pg 3)



been contaminated above 70 parts per trillion. As of September 2016, 121 out of 1,174 public water systems that were asked to voluntarily sample their water sources have reported sampling results for 150 sources of water with many samples still reportedly being processed by laboratories. The results of the state-wide voluntary public water system sampling for PFCs can be found under "Investigation into Perfluorooctanoic Acid (PFOA)" on the homepage of NHDES' website at <http://des.nh.gov> ♦

# Welcome, Kim Bourgoiuin!

Recently, Kim Bourgoiuin joined DWGB's Planning, Protection and Assistance Section and she's busy at work on a number of source water protection projects. Kim is assisting with efforts to help prevent catastrophic releases of harmful substances into our state's source water and developing online training for BMPs for groundwater protection. She is also working to improve the Bureau's ability to track and respond to cyanobacteria blooms in lakes and rivers used as sources of drinking water. Kim previously worked at Stacey DePasquale Engineering and earned a Bachelor's degree in Environmental Science and Policy from Plymouth State University. Welcome, Kim! ♦

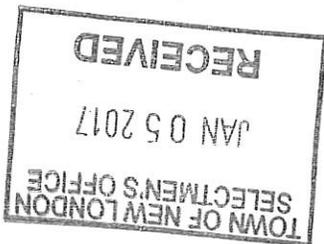


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