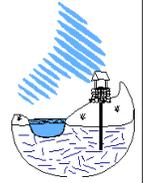




# THE SOURCE



NEWSLETTER OF THE NHDES DRINKING WATER SOURCE PROTECTION PROGRAM  
ON THE WEB AT [WWW.DES.NH.GOV](http://WWW.DES.NH.GOV)

SUMMER 2012

## Find the Latest Drought Information and Guidance on DES Website

This past winter and spring were unseasonably dry and warm by New Hampshire standards. Since summer months are often drier than other months of the year, and also a time when demand for water is high, the summer is a good time to stay informed about water availability.

Current drought related information is available on the DES website and is updated weekly. Information such as precipitation deficits, stream flow measurements, groundwater levels and fire danger classification is provided on this website. Data are provided by the U.S. Drought Monitor, which is maintained by a consortium of federal agencies. Additional materials are also available on the DES website, including guide-

lines and/or requirements to:

- Restrict residential lawn watering.
- Develop emergency sources of drinking water.
- Haul bulk water to public water systems.
- Implement general water conservation measures.

DES also tracks and maintains a summary on its webpage of water use restrictions implemented by water systems. If your water system has issued a water use restriction, please contact Derek Bennett at [derek.bennett@des.nh.gov](mailto:derek.bennett@des.nh.gov) or (603) 271-6685. The weekly summary is available online at <http://des.nh.gov/organization/divisions/water/dam/drought/drought-conditions.htm>.

## More Towns Adopt Zoning Ordinances to Protect Drinking Water Resources

This spring, at least four communities adopted new zoning ordinances that better protect local sources of drinking water:

- Canaan voters approved a Drinking Water Protection Ordinance as an overlay district that includes the watershed for Canaan Street Lake (a surface water source) and wellhead protection areas for all public water supply wells, including the town's new municipal well.
- Greenfield and Canterbury both approved groundwater protection ordinances that protect stratified drift aquifers and wellhead protection areas. The new ordinances include most of the provisions found in the DES Model Groundwater Protection Ordinance (2010).

- Windham passed the Canobie Lake Watershed Protection Ordinance to better protect the high quality of water in the lake from non-point source pollution. Canobie Lake is used as a surface source by the town of Salem, serving 18,000 people. The new ordinance extends an existing watershed district in Windham (for Cobbetts Pond) to also include Canobie Lake's watershed.

DES provides guidance on adopting local zoning protections to protect drinking water resources. For more information, contact Pierce Rigrod at [pierce.rigrod@des.nh.gov](mailto:pierce.rigrod@des.nh.gov) or review DES's Model Groundwater Protection Ordinance at <http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-06-41.pdf>.



## SPOTLIGHT ON SOMERSWORTH

# Moving Beyond the “Pipe and Pond” Approach: Somersworth Adopts Innovative Low Impact Development Regulations

This winter, Somersworth became one of the first communities in New Hampshire to adopt low impact development regulations that will reduce the volume of stormwater and provide great treatment prior to infiltration to the ground. Low Impact Development involves developing land according to design principles that retain the maximum amount of natural landscape and through reducing impervious cover to minimize the amount of stormwater generated and discharged off-site to nearby rivers and lakes. This is a big step forward for the city and will reduce contaminants in runoff—such as nitrogen, phosphorus or hydrocarbons—from discharging into the Salmon Falls River, the city’s main source of drinking water.

The Salmon Falls watershed extends south from Wakefield to Rollinsford, straddling the New Hampshire-Maine border. Portions of the Salmon Falls River are already classified by DES as “impaired” (do not meet state water quality standards). The risk of losing existing private forests that filter and remove contaminants from runoff is more pronounced in the southeastern portion of our state. A recent U.S. Forest Service report identified the Salmon Falls watershed as the most threatened watershed in the nation in terms of potential impacts on water quality due to housing development and forest loss over time. The report is online at [www.fs.fed.us/openspace/fote/benefits.html](http://www.fs.fed.us/openspace/fote/benefits.html).

The U.S. Forest Service report underscores the need to move beyond the traditional “pipe and pond” approach to stormwater management and to focus on clean infiltration and treatment to effectively remove contaminants before they reach our lakes, rivers and streams. The Somersworth planning department recognized the potential benefits of low impact development years ago and began working with developers to voluntarily install porous pavement, divert rainfall from roofs to holding tanks that irrigate lawns, and install “rain gardens” that provide greater treatment through adsorption, microbial activity and plant uptake. With a small amount of financial assistance from DES’s Source Water Protection Program, the Piscataqua Region Estuaries Partnership and Tighe and Bond (engineering consultants) worked with the planning department to revise local regulations to require low impact develop-

ment practices. According to Dave Sharples, “The city of Somersworth has been working with developers in the community to encourage them to voluntarily adopt low impact development practices. Because of this, when the planning board was considering adopting new low impact development regulations, the developers were already using the practices, and hence the board unanimously adopted the regulations.”

UNH’s Stormwater Center studies the performance of low impact development practices in terms of their ability to remove certain contaminants and now promotes their installation for both environmental and economic benefits, such as reduced site work, curbing, piping and related system maintenance. The center’s “Forging the Link” study and resources are available online for community planners to review at [www.unh.edu/unhsc/forgingthelink](http://www.unh.edu/unhsc/forgingthelink).

For a copy of Somersworth’s new low impact development regulations, go to [www.somersworth.com](http://www.somersworth.com), click on “Documents,” then click on “Ordinances” and choose “Chapter 22A-Site Plan Review Regulations.” If you are interested in local adoption of similar regulations, contact Pierce Rigrod at (603) 271-0688 or [pierce.rigrod@des.nh.gov](mailto:pierce.rigrod@des.nh.gov). Congratulations Somersworth! •

*The Source*, the quarterly newsletter of the DES Drinking Water Source Protection Program, is published by the N.H. Dept. of Environmental Services.



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## Two Awards Recognize New Hampshire Source Protection Leaders

DES Commissioner Thomas Burack presented two awards at the 2012 Drinking Water Source Protection Workshop on May 2. These awards honor the individuals who have made significant contributions to protect and preserve drinking water resources.

The 2012 Source Water Protection Award was presented to David E. Sharples, Director of Planning and Community Development for the city of Somersworth. Mr. Sharples has been instrumental in the city's recent adoption of innovative low impact development land use regulations (see page 2 of this newsletter) as well as strategic land conservation efforts, including a 15-acre parcel that protects over 2,100 feet of frontage along the Salmon Falls River, the city's primary source of drink-

ing water. He was recognized as a consistent advocate for protecting local drinking water resources and actively participating in the Salmon Falls Watershed Collaborative. The collaborative works across municipal and state boundaries to better protect this vulnerable coastal watershed.

The Source Water Sustainability Award recognizes work to preserve the sustainability of drinking water resources. This year's award was presented to William S. Weber of the Village District of Eastman in Grantham, to honor his work to preserve the availability of local groundwater resources. Mr. Weber has been instrumental in the implementation of various water efficiency enhancements to the water system and in communicating the importance of water conservation to Eastman residents. Through improvements in water use measurement, pressure reduction and frequent leak detection surveys, the district has successfully been able to reduce water losses. The district has implemented a rate structure to discourage excessive use, developed tailored water conservation materials, and holds an annual open house for residents to learn about their sources of drinking water.

Congratulations to this year's award winners. •

### New Data on Protection and Conservation of Surface Water Buffers Available Online

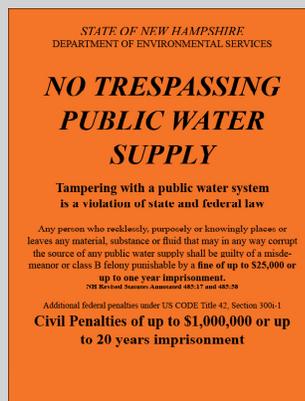
In March 2012, GRANIT, a UNH program that serves as the state's online repository for GIS (geographic information systems) data layers, posted DES's Buffer Gap Analysis (see [www.granit.unh.edu/data/search?dset=des\\_buffergapanalysis](http://www.granit.unh.edu/data/search?dset=des_buffergapanalysis)). This data layer ranks riparian buffer protection afforded to rivers and lakes in New Hampshire based on the width and type of protection provided by adjacent land conservation, the Shoreland Water Quality Act (formerly referred to as the Comprehensive Shoreland Protection Act), and local zoning ordinances.

In March, GRANIT also posted an update to the Conservation/Public Lands data layer. Over 230 tracts covering more than 17,800 acres have been added to the statewide data layer. Another 166 tracts were updated. The Nature Conservancy has been reaching out to communities to update their conservation land information in GRANIT, so look for more updates to the Conservation/Public Lands data layer this fall.

The Conservation/Public Lands data layer can be viewed using GRANIT's online viewer by opening GRANITView at <http://granitview.unh.edu/>, clicking the check box next to the "Land Conservation" layer in the "Map Layers" window and zooming in using the navigation tools provided on the right side of the viewer. The Conservation/Public Lands data layer can also be downloaded from the GRANIT web page at [www.granit.unh.edu/data/search?dset=consnh](http://www.granit.unh.edu/data/search?dset=consnh). •

### FREE "No Trespassing" Signs Available Metal Reflective 12" X 18"

If interested, contact Johnna McKenna at (603) 271-7017 or [johnna.mckenna@des.nh.gov](mailto:johnna.mckenna@des.nh.gov). These signs are too heavy to mail so pickup will need to be arranged.



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## News from the 2012 Annual Drinking Water Source Protection Workshop

A record number of participants—over 220 people—turned out for DES's Annual Source Water Protection Workshop held at the Grappone Center on May 2, 2012. This year's plenary featured DES Commissioner Thomas Burack and leading experts from our state's largest water utilities, academia, consultants and the U.S. Department of Agriculture's Natural Resources Conservation Services.

Commissioner Burack's opening remarks focused on the progress New Hampshire has made over the last 25 years since DES was established in 1987, including amendments to the Federal Safe Drinking Water Act, enactment of New Hampshire's Groundwater Protection Act in the early 1990s, and continued adoption of local zoning policies and programs that further protect drinking water. Although there has been progress, there are still challenges necessary to address, such as

emerging contaminants and continuing changes to our landscape and climate. The bottom line is that much work remains to ensure a clean and sustainable water supply in New Hampshire.

Afternoon sessions included topics ranging from emerging contaminants such as 1,4 dioxane, statewide chloride trends in public water supply wells, examples of small-scale stormwater infiltration measures to reduce nitrogen and phosphorus loading in Meredith's drinking water source, review of low impact development regulations adopted in Somersworth, and a panel discussion on the public health and local permitting issues related to private domestic wells.

Presentations may be downloaded from the American Ground Water Trust's website at [www.agwt.org](http://www.agwt.org). •

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