THE SOURCE

NEWSLETTER OF THE NHDES DRINKING WATER SOURCE PROTECTION PROGRAM SUMMER 2000

Water Supply Land Conservation Grant Program Now A Reality

On June 21, 2000, Governor Jeanne Shaheen signed Senate Bill 135, creating the Water Supply Land Conservation Matching Grant Program. Under the program, DES will make grants to municipalities to help them purchase land or conservation easements critical to protection of their sources of drinking water. Water supply lands must be within the source water protection areas for existing or planned public drinking water sources. The Legislature has appropriated $1.5 million for the first year of the program. This funding is available starting July 1, 2000.

Under the new program, state grants must be matched 3:1 from local sources. Sources of the local match can include donated land or easements that also lie within the source water protection area, public funds, transaction expenses, or private funds.

Legislation to create the program followed from a 1998 study commissioned by DES and conducted by the Society for the Protection of New Hampshire Forests (SPNHF), which found that only 11 percent of public water supply land is currently protected and that 39 percent of community water systems do not even control the minimum sanitary protective areas around their wells. The same study found a high level of interest among water suppliers in a land conservation program.

Sherry Godlewski has been hired to administer this program within the Drinking Water Source Protection Program. Sherry will work closely with the Forest Society (SPNHF) to initiate this program. Together they will provide outreach to communities and water suppliers regarding the protection of water supply lands and provide assistance to applicants and landowners who are interested in the program. Sherry comes to the Drinking Water Source Protection Program with a great deal of experience in grants administration, public outreach, and resource protection. As Watershed Coordinator in DES's Watershed Management Bureau, Sherry administered restoration projects and grants for non-point source pollution abatement as well as having worked with the department's Performance Partnership Program. Prior to her tenure in the Watershed Bureau, Sherry worked at DES as the Recycling Coordinator. She has also worked for the NH Coastal Program and for the NH Natural Heritage Inventory Program. In addition to managing the land conservation grant program, Sherry will also coordinate and track the department's Groundwater and Drinking Water Strategy work plan.

Municipalities interested in applying for a water supply land protection grant will submit an eligibility application, and if eligible a grant application. For the first round of grants, eligibility applications are due October 1, 2000. Final applications will be due December 1, 2000. Interim rules and applications are available. For more information about the program, and assistance in developing an application, contact Sylvia Bates at SPNHF (279-8890 or skbtnm@worldpath.net) or Sherry Godlewski at DES (271-0688 or sgodlewski@des.state.nh.us).

Spotlight on... Milford

Ben Franklin's take on groundwater 250 years ago was "When the well's dry, we know the worth of water." Poor Richard was right. Towns that have experienced groundwater contamination incidents tend to be the most pro-active in protecting their remaining groundwater resources.

In 1983 and 1984 the Town of Milford lost two wells because of chemical contamination from multiple industrial sources. Milford spent $475,000 to replace the wells, and eventual cleanup of the productive sand-and-gravel aquifer along the Souhegan River was expected to take until 2028 at the earliest. Last year the town implemented an extensive wellhead protection program for the replacement wells, located in Amherst. This year, Milford received some welcome news: it may only take another 10 to 12 years to bring the contaminated wells back on line.

Motivated by a desire to protect the aquifer from further contamination, and prompted by the impending sale and development of a large tract of farmland in the commercial/industrial zone abutting Route 101A and the Souhegan River, the Planning Board and Conservation Commission have embarked on a forward-looking aquifer protection planning effort. Guided by Milford's Master Plan update process, the groups hope to identify critical recharge areas in order to plan a protection strategy for the now inactive wells and other portions of the aquifer that may support future wells. The planning effort will include a review of Milford's existing subdivision andsite plan review regulations and its aquifer protection zoning. The first step will be a favorable gravel well analysis, whichlooks at the impact of land development on the availability of future community well sites. For more imformation, contact Milford Town Planner Bill Parker at 673-7964, or Conservation Commission Chair Diane Fitzpatrick at 672-1070.

Water Suppliers' Comments Needed on Instream Flow Rules

DES's Watershed Management Bureau is moving ahead with rules to protect instream flows in thirteen rivers designated under the Rivers Management and Protection Program. As currently drafted, the rules will apply to consumptive withdrawals directly from those rivers, consumptive surface and groundwater withdrawals within 250 feet of those rivers, and certain hydroeletric facilities. The rules, as currently prepared, would limit withdrawals from protected river segments when instream flows fall below certain trigger points. DES is required to adopt the rules bythe Rivers Management and Protection Act (RSA 483), which was enacted in 1988.

Under the proposed rules, the amount of water that a user can take from a river would be based on its historical withdrawals, although some water users may have to limit or cease withdrawals when river flows are extremely low. In the current version of the rules, there is an exception for water suppliers, who would be able to make "emergency withdrawals" of up to 75 gallons per day per person served, although they may be required to tap other sources first. DES is seeking comment on whether 75 gpd is an appropriate amount and what "emergency withdrawals" for water supply might constitute. "DES is working in earnest to develop a rule that meets the mandate of protecting instream flows and the resources they support, while minimizing the impact on users who have historically withdrawn water," reports Watershed Management Bureau Administrator Paul Currier.

More information is available on DES's website at www.des.state.nh.us/rivers/instream/ or by contacting Paul Currier at 271-3289.

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got salt?

Long recognized as an essential part of the human diet, salt is now the subjectof controversy, in terms of the role of excess salt in promoting disease in otherwise healthy people. In the context of drinking water and health, most people mentioning salt are really concerned about sodium. Let's put things in perspective. Ninety percent or more of an average person's sodium intake is usually from food. Anyone concerned about sodium should evaluate all sources of sodium when attempting to reduce overall intake.

In many cases, it is much easier and less expensive to make a dietary change that to treat drinking water. However, for the 3 percent of the population on a physician-prescribed "no salt diet," EPA and the American Heart Association have recommended that sodium levels in drinking water not exceed 20 mg/L. Otherwise, the aesthetic (taste-based) standard for sodium is 250 mg/L For comparison purposes, regular milk has a sodium concentration of approximately 500 mg/L.

Salt goes not naturally occur in groundwater in inland New Hampshire and thus its presence suggests contamination from land use activities within the well's recharge area. Two important sources of sodium and chloride in groundwater are road salt and backwash from water softeners. Unless you can manage the amount of salt applied to paved areas, the best policy is to locate wells away from areas where salt is stored or applied and ensure that such areas drain away from your well. Water softeners, which are used by homeowners to remove hardness or dissolved iron and manganese from well water, are typically regenerated by salt using a time clock. This method can regenerate the softener more often than needed, resulting in over-use of salt which is discharged to groundwater via the septic system. Improved water softeners are available that regenerate only when necessary.

If you are concerned about sodium in your private well water, you should test it. The cost for sodium and chloride tests at DES's laboratory is $20. The laboratory's Standard Analysis ($65) includes sodium, chloride, and several other parameters and is a better investment if the well has not been tested for years. For a sample bottle and instructions, you may call the laboratory at 271-3445.

Treatment for either sodium or chloride is typically by reverse osmosis (RO) in an under-the-sink treatment unit. RO is a broad treatment process which takes out most dissolved minerals in water and normally will make the water somewhat more corrosive. A basic under-the-sink RO devise has a cost of approximately $750-850. If your well has high levels of sodium and chloride and you suspect that salting of a state highway is responsible, please contact the NH Department of Transportation's Well Replacement Program at 271-2693.

For more information on salt in drinking water, call 271-2975 for DES fact sheet WD-WS-3-17 or view it online at www.des.state.nh.us/ws-3-17.htm.

Source Assessment Program Update

The Drinking Water Source Assessment Program (DWSAP), which will assess the vulnerability of each of the state's 3,000 public water supply sources within the next three years, is moving ahead with its data gathering effort. Five undergraduate and graduate interns will spend their summers conducting windshield surveys, locating potential contamination sources with global positioning satellite (GPS) receivers, assisting with lake surveys, and gathering and inputting other data under the direction of DES staff. This summer, DES expects to complete field work for 26 water supply lakes and reservoirs included in the nutrient loading study, which will examine the impacts of future land use on raw water quality. This summer's windshield surveys of wellhead protection areas will focus on transient systems, which represent 1,200 sources.

River assessments for the DWSAP are also moving ahead. After conducting mean-flow dye tracer tests on 13 water supply rivers this spring, the United States Geological Survey (USGS) plans to conduct low-flow tests on the same rivers this summer. By year end, USGS will develop information on dispersion, dilution, and travel time of dissolved contaminants in the studied rivers. The travel-time information will help water suppliers plan for hazardous material spills and enable DES to delineate the critical areas upstream of intakes for the DWSAP.

Drinking Water Strategy Moves Ahead

The development of DES's second five-year Groundwater and Drinking Water Strategy is moving ahead with the drafting of an Outreach and Education Plan, the first meeting of the Stormwater Recharge Subcommittee, and the last meeting of the overall advisory committee. The Strategy, which has been described in past issues of *The Source,* involves a process for continuous improvement by engaging all parties with an interest in protecting groundwater and drinking water in the development and implementation of a work plan to address critical issues. The Outreach Plan deals with a wide variety of topics, ranging from private wells to protection of surface sources. The Stormwater Recharge Committee may recommend changes toDES programs in order to preserve groundwater recharge in developing areas, and advise DES in developing guidance to municipalities towards the same end. The final meeting of the advisory committee allowed DES to finalize the five-year work plan and begin on the tasks for improving protection programs.

For more information, or a copy of the final work plan, contact Sherry Godlewski at 271-0688 or sgodlewski@des.state.nh.us

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