

Water



WINTER 2006

A Publication of the Water Supply Division of the Vermont Department of Environmental Conservation

Vermont's Groundwater Program

Contributed by Dennis Nealon, *Staff Hydrogeologist*

The Water Supply Division has many responsibilities. Most of these responsibilities focus on the needs of public water systems. However, the Division also has an obligation to the natural resource that provides most of the drinking water to Vermonters. That resource is groundwater.

It is the policy of the state of Vermont to protect its groundwater resources (Chapter 48: Groundwater Protection). To this end, the Secretary of the Agency of Natural Resources is responsible for the development of a comprehensive groundwater management program. The administrative arm of this program is the Water Supply Division (WSD).

The protection of groundwater is accomplished through a number of mechanisms. These include the establishment of the Groundwater Coordinating Committee, the groundwater classification system, the evaluation of land uses that threaten groundwater, and the collection of groundwater information.

The Secretary has established a Groundwater Coordinating Committee (GWCC). The committee's role is to advise the Secretary regarding the development of the groundwater program and its corresponding implementation. The com-

mittee consists of representatives of all state agencies whose programs influence groundwater, plus members of outside organizations interested in groundwater issues.

State regulations govern drinking water, wastewater, and waste disposal as activities related to groundwater. A major role of the GWCC is to provide input to these regulations. The committee has focused significant attention on the Groundwater Protection Rule and Strategy (GWPR&S). This rule establishes a groundwater classification system along with a strategy for managing risks to groundwater quality. Recently the committee has updated this rule to include 198 primary groundwater quality standards and 14 secondary groundwater quality standards. Another regulation recently revised, with input from the GWCC, was the Wastewater System and Potable Water Supply Rule. The rule outlines permitting and technical standards for wastewater systems. The rule provides design guidelines including percolation test procedures, soil mottling analysis, along with septic tank specification and maintenance procedures. These mechanisms are aimed at protecting groundwater.

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Water Resources Section – Ken Yelsey, Ashley Lucht, Scott Stewart, Rodney Pingree and Dennis Nealon

A Note from the Director

Contributed By Jay Rutherford,
Water Supply Division Director



We're very pleased to be sending you the latest edition of our newsletter. This issue is one of our largest yet, reflecting the wide variety of activities that cover the gamut of providing safe and affordable drinking water to customers.

I'd like to focus my remarks for this issue on one particular type of public water system, Transient Non-community (TNC) water systems. These are typically restaurants, motels, hotels, and stores which have their own wells or springs. Over the past decade or so, TNC systems have not received attention like other, larger, systems have. That will be changing over the next year or so.

Last year, we amended the monitoring requirements for TNC systems from annual bacteriological monitoring to quarterly monitoring. For the first year, we offered to take the samples for these systems and pay for the cost of analysis. That first year has expired and TNC systems are now on their own for completing the required sampling and reporting results to the state.

Another change that's coming for TNC systems is a general operating permit. Systems that qualify for the general permit will be able to utilize a streamlined process to obtain a permit to operate a TNC water system. Increasingly, we are finding that attorneys doing property transfers are looking for all required permits, including TNC permits. Not having a permit has the potential to affect a timely transfer of properties and small businesses.

Finally, I urge all TNC water system owners to read the Transient Non-community Water System Bulletin in this newsletter by Jim Siriano.

Transient Non-community Water System Corner Permitting, Water Quality Monitoring, and Operator Certification

Contributed by Jim Siriano,
Transient-Non-Community Program Supervisor

Welcome to the TNC Corner. The purpose of the Corner, which will be a regular feature in the Waterline, is to share information about transient non-community water systems (TNCs) with the drinking water community. This inaugural piece focuses on some of the key regulatory requirements, including permits, water quality monitoring, and operator certification - let's get the legal stuff out of the way early! Future articles will provide program updates, offer technical assistance tidbits, etc. And speaking of technical assistance, we have extended our contract with Aquaterra through June 30, 2006, to provide free technical assistance to TNCs. Take advantage of this service while it's still available. Please call us to find out more or to let us know if you have topics you would like to see appear in future editions of the TNC Corner.

Permits

To date, the Vermont Statutory requirement to issue permits to all transient non-community systems (TNCs) has somewhat flown under the radar. But with the current administration's emphasis on permitting, further development of the Water Supply Division's (WSD) TNC Program, and external pressures due to legalities involved with real estate transactions, permitting is getting more attention. Thus it is a good time to describe the permit requirements for TNCs.

Permitting is required for three aspects of TNC drinking water systems: water sources; system construction and modifications, including installation of treatment; and system operations. Each aspect is described below.

Drinking Water Sources

All water sources (e.g., wells and springs) used by TNCs must be permitted through a Wastewater System and Potable Water Supply Permit. These permits run with the land and are issued by the Wastewater Management Division's Regional Offices. There is an exemption for "pre-existing" sources, which generally means sources in use as of September 1969 and for which the use has not changed. A system may not hook up a new or existing source unless the source has been permitted for use at a TNC. For more information contact the Wastewater Management Division at (802) 241-3822.

Water System Construction and Modification

The construction of or modification to a TNC water system requires a permit. Examples of modifications include adding treatment to improve water quality or adding storage tanks to meet user demands. The purpose of the construction permit is to ensure the system is designed and built in accordance with regulations and in a manner that protects public health.

Similar to water sources, the initial construction of a TNC water system and modifications, other than installing treatment, must be permitted through a Wastewater System and Potable Water Supply Permit. TNCs that plan to install treatment other than water softeners (e.g., ultraviolet light or chlorine disinfection) must obtain a permit to construct from the WSD's Engineering and Financial Services Section.

Water System Operations

TNCs are required to have a permit to operate from the WSD. To date the division has not had the resources to issue operating permits for all TNCs. Thus, the focus has been on issuing permits to systems using surface water sources and systems required to conduct testing to determine if a source is under the direct influence of surface water (GWUDI). Because there are so many TNCs, the WSD obtained legislative authority to issue general permits. Starting in 2006, general permits will be used to cover many TNCs while alleviating the administrative burden of issuing individual permits. Prior to issuance, there will be a public hearing and comment period on a proposed general permit. Once the general permit is available, the WSD will notify systems and instruct owners on how to obtain coverage.

Water Quality Monitoring

TNC owners must ensure the system's drinking water quality is monitored to help demonstrate that the water they provide to customers is safe to drink. Routine testing is important because water quality can change over time. Just because tests indicated that your water was "clean" last quarter does not mean that it is safe to drink today. Despite our efforts to encourage systems to monitor, including offering a year of free sample collection and analysis, many systems are not conducting routine monitoring and reporting the results to us. So here's a reminder of the requirements in hopes of getting everyone to sample.

Routine monitoring requirements for TNCs include sampling for nitrate and total coliform. Details are listed below. Based on local site conditions (e.g., geology and land use activities) and historical test results, we may also require additional monitoring for certain systems to ensure the water is safe to drink. Such testing may include monitoring to determine if a source is groundwater under the direct influence of surface

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Vermont's Groundwater Program *(continued from page 1)*

The GWPR&S defines four classes of groundwater in Vermont. Vermont's groundwater classification system defines Class I and Class II groundwater as suitable for a public water supply. Other than the Class IV groundwater areas, the remaining groundwater is classified as Class III. Class III groundwater is defined as suitable as a source of water for individual water supply, irrigation, agricultural use, and general industrial and commercial use. Vermont's groundwater classification system defines Class IV groundwater as not suitable as a source of potable water but suitable for some agricultural, industrial, and commercial uses.

The GWCC has provided significant coordination with the Waste Management Division (WMD) regarding the classification of Class IV groundwater areas. A number of groundwater areas identified by the WMD as contaminated were subsequently classified as Class IV groundwater areas. As mentioned, this designation defines the groundwater area as non-potable. There are 9 areas classified as Class IV groundwater areas in Vermont, including the Burgess Brothers Landfill (Bennington), Parker Landfill (Lyndon), Transitor Electronics (Bennington), Pine Street Barge Canal (Burlington), Maska Inc. (Bradford), Windham Solid Waste District Unlined Landfill (Brattleboro), the Bennington Landfill located in Bennington, and the Unifirst Sites in Brookfield and Ran-

dolph. The Unifirst Site in Williamstown and the the Hartford Landfill (Hartford) are currently being proposed as Class IV groundwater areas. Policy development, technical review, public notification, and advising the Secretary are some of the processes that must be addressed in the groundwater classification procedure.

The WSD staff provides input to land use development and particularly to development that may not be compatible with the resource. New development that is flagged by Vermont's Act 250 Land Use and Development Process is assessed for its potential impact on groundwater. A wide range of land uses are evaluated in response to the development. Septic systems, underground storage tanks, stormwater systems, quarries, and landfills are a few examples of some of the land uses that have been evaluated. Protection measures such as groundwater monitoring or well construction controls are often put in place. These protection measures are not aimed at precluding development, rather the emphasis is placed on groundwater awareness and protection.

To protect groundwater, an understanding of the resource is needed. To this end, the WSD receives and reviews a considerable amount of invaluable groundwater data. In part, this information consists of approximately 100,000 well completion reports. This information is submitted by water well drillers and each year well drillers submit an additional 2,000 to 3,000 well comple-

tion reports to the Division. The well completion reports describe the geology, well depth, and well yield of wells drilled. This information is vital to characterization of this resource. In turn, potential impacts of a given development and corresponding protection measures can be readily assessed. Groundwater data is also obtained from a cooperative arrangement with the United States Geological Survey (USGS). The WSD and the USGS have recorded groundwater level data measured at a dozen monitoring wells for years. Some of this data goes back to the 1950s. Comparing groundwater fluctuations over time is useful especially when assessing drought occurrences and in developing a drought management program.

The purpose of the groundwater program is to protect the quality of groundwater through a variety of mechanisms. Such mechanisms include the development of a strategy for the management and protection of the state's groundwater. This strategy is to be integrated with other regulatory programs administered by the Secretary. Continuing studies, assessing land uses, and classifying groundwater per technical criteria and standards are also components of the program. Cooperation with the federal government in the development of groundwater protection programs along with cooperating with other government agencies in collecting and compiling data are yet additional aspects of the groundwater protection program.

Twelve ways to conserve water in Vermont:

1. An astounding 40 percent of the water you use in your home is flushed down the toilet. Placing a plastic bottle filled with water or rocks as ballast in your toilet tank can save several gallons of water per flush, and more than 12,000 gallons per year for a typical family.
2. Wash full loads of laundry only, unless your washing machine has a water-saving cycle for small loads. Use cold water when possible, as this saves energy.
3. Repair leaking and dripping faucets as soon as possible. A dripping faucet can waste up to 20 gallons of water a day; a leaking toilet up to 200 gallons a day.
4. Turn off your faucet while brushing your teeth.
5. For a glass of cold water to quench your thirst, keep a pitcher of water in the refrigerator. This is more efficient than running the tap and waiting for the water to become cold.
6. When washing dishes by hand, don't let the hot water run constantly for rinsing. Instead, use one basin for soapy water and another basin for rinsing.
7. Showers account for up to one-third of home water use for a typical family. Installing a low-flow shower head will save water and money.
8. For automatic dishwashers, wash full loads only, unless the machine as water-saving cycle for small loads.
9. Wash the family car or truck using water from a bucket, not running water from a hose. Use the hose only for rinsing.
10. If you must water your lawn, do so in the morning or evening to minimize evaporation. Watering during the heat of the day can sometimes burn a lawn because water increases the sun's intensity.
11. Encourage your water system to establish a water pricing structure that rewards and encourages conservation.
12. Encourage your office and local school to adopt water-saving measures.

Meet Our Staff:

Susan Mitchell, TNC Specialist

Susan Mitchell began working for the Water Supply Division in July of 1991 and has worn several hats during her tenure with the Division. Susan started out as a secretary in the Water Supply Division, then quickly moved to a program services clerk. After a short stint at that post she became an Environmental Analyst overseeing a variety of activities including the Lead and Copper Program, Public Notification, bottled water permits, transient non-community water system (TNC) Nitrate and Coliform compliance, and surface water TNC's.

Currently Susan's role as the Division's TNC specialist has her conducting Sanitary Surveys, Source Water Assessments, TNC vulnerability assessments, collecting information to conduct ground water under the direct influence of surface water determinations, issuing TNC operating permits, and providing technical assistance to TNC water systems. The technical assistance comes in the way of education to systems to understand the importance of routinely inspecting their water sources

and distribution systems as well as explaining the reason for testing for acute contaminants and the possible consequences of high levels of Nitrate and Coliform bacteria in drinking water. The services Susan provides to the TNC's are invaluable.

Susan has spent her career serving the State of Vermont for close to 30 years. In 1976, Susan began working for the Department of Motor Vehicles (DMV). While with the DMV she worked in several different capacities such as data entry, conducted driver's exams for school buses, automobile and motorcycles. She also issued plates, learner's permits, photo licenses and a number of other various duties. Upon leaving the DMV, Susan took employment with the Department of Health working with children with special health needs.

Originally from New York, Susan fell in love with the Green Mountains deciding to stay after earning her Associates in Liberal Arts from Vermont College and a Bachelor's of Science in Elementary Education from Norwich University. Currently, Susan lives in the Recreational Crossroads of Vermont (Water-



Susan Mitchell, *TNC Specialist*

bury) with her two cats where she has close access to the activities she enjoys at various times of the year such as snowshoeing, cross country skiing, horse camping and trail riding. Most importantly, she is close to her highest priority. Yes, her office is a short walk from her house but I think if you were to ask Susan what is on the top of her priority list, Rumor, her horse, would be the first thing to roll off the top of her mind. Susan saved Rumor from slaughter 5 years ago when the horse was 4 months old so they have a special relationship. Susan thoroughly enjoys spending her time training and riding Rumor.

TNC Systems, if you are looking for assistance Susan is your one stop shop and is more than happy to help you out.

Flowing Forward



Heather Young

Heather Young, who worked on The Water Supply Division's source water assessment program, is the new Water Systems Security Specialist. She will have an exciting transition from focusing on potential sources of contamination to emergency response planning and vulnerability assessment for water systems.

Bryan Redmond has taken a new assignment within the Water Supply Division. Your friendly Operator Certification Officer and contact for the Total Coliform Rule has now taken over the responsibilities of the Drinking Water State Revolving Fund Program Specialist, managing the DWSRF Projects Priority List and other DWSRF Program activities. Now that Bryan left his post as Operator Certification Officer you should contact Ellen Parr Doering at (802) 241-3410 until the position is filled.



Bryan Redmond

Transient Non-community Water System Corner Permitting, Water Quality Monitoring, and Operator Certification

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water (GWUDI), monitoring more frequently for contaminants routinely sampled by the system (e.g., nitrate or total coliform), or monitoring for other contaminants (e.g., petroleum products). The Water Supply Division will notify the system if additional monitoring is required.

All samples must be analyzed by a certified laboratory and results submitted to the WSD. A list of certified laboratories is available from the WSD or online at <http://healthyvermonters.org/hs/lab/watertest.shtml>.

Routine Monitoring

NITRATE

TNCs must sample once per year for nitrate. The sample should be taken as close to the source as possible and after any treatment. The maximum contaminant level (MCL) for nitrate is 10 milligrams per liter (mg/L). If a test result is 5 mg/L or more, but less than the MCL, the system will be required to monitor quarterly for nitrate and to try and locate and remove the source of contamination. If a result exceeds the MCL, the system must take a confirmation sample within 24 hours and monitor monthly. If the average of the initial result above the MCL and the confirmation sample exceed the MCL, the system will be required to issue a "Do Not Drink" notice until the source of contamination is found and eliminated, treatment is installed to remove the contaminant, or the source is replaced with a new permitted source of water.

TOTAL COLIFORM

TNCs must routinely sample the distribution system for total coliform bacteria in accordance with a bacteriological sampling plan. Frequency of sampling depends on the source

type (e.g., ground water or surface water) and the number of people the system serves. Table 3 indicates the frequency and minimum number of samples to take.

If coliform is detected in a routine sample, the system must take four repeat samples within 24 hours and five routine samples during the following calendar month that water is served to the public. Based on the results of the additional tests the system may have to notify their customers and/or issue a "Boil Water" notice.

In addition to the routine samples, systems that are not in service year-round (e.g., seasonal campgrounds) must collect a sample for total coliform before, but not more than 10 days prior to, service startup (i.e., serving water to the public).

Operator Certification

The Water Supply Rule requires TNCs to have a certified operator. The operator is responsible for insuring the proper operation of the water system and overseeing water quality monitoring. Many systems are operated by owners or their employees, but some choose to hire a contract operator.

To operate a TNC water system, you must obtain an Operator's Certificate of the appropriate class. The class required depends on the type of water treatment at the system¹. TNCs with no treatment or with only ion exchange for softening or limestone contactors for pH adjustment need a Class 1A operator. Currently no formal training is required to obtain a Class 1A certificate. However, we encourage Class 1A operators to attend training. TNCs with chlorine or ultraviolet light (UV) disinfection need a Class 1B operator. Class 1B requires three hours of formal training during each three year certification cycle. Vermont Rural Water Association periodically offers regional training classes designed specifically for TNCs.

¹ - If your system has treatment other than disinfection or water softening, you must have a Class 3 or Class 4 certified water system operator. Contact the WSD for more details.

Table 3. Total Coliform Bacteria Monitoring Periods and Number of Routine Samples for Transient Non-community Water Systems

POPULATION ¹	GROUND WATER SOURCE	SURFACE WATER AND GROUND WATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER
Less than 1,001	1 per quarter	1 per month
1,001 to 2,500	2 per month	2 per month
2,501 to 3,300	3 per month	3 per month
3,301 to 4,100	4 per month	4 per month
More than 4,100	Contact the WSD	Contact the WSD

¹ Based on the larger number of 1) the design capacity of the system's Water/Wastewater permit, or 2) the sum of the residents and the average daily transient population (total number of transients served per month divided by the number of days per month).

Guidelines For Water Storage Tank Inspections And Maintenance

Contributed by Greg Bostock,
Staff Engineer

INSPECTIONS

Inspections can take many forms and can be routine, periodic, and comprehensive. Both interior and exterior inspections are needed to assure maintenance of physical integrity, security and high water quality. The type and frequency of the inspection is driven by the type of tank, its susceptibility to vandalism, age, condition, time since last cleaning or maintenance, history of water quality, plus other local criteria. Exterior inspections for obvious signs of intrusion or vandalism might occur daily or weekly. Periodic inspections of hatches, vents, and overflows might occur on a monthly or quarterly basis. A comprehensive inspection of the interior is normally conducted when the tank is drained for cleaning.

The American Water Works Association (AWWA) Standard D101 latest revision,

Standard for Inspecting and Repairing Steel Tanks, recommends a 5-year maximum inspection interval. Similarly, the Vermont Water Supply Rule requires that all tanks be comprehensively inspected, inside and outside, every 5 years, except for newly constructed, newly painted (inside), or newly reconditioned tanks (inside and outside), which shall be inspected within 10 years of service and every 5 years thereafter.

Table 1 summarizes the recommended frequency of inspections. It is important to inspect and evaluate for settlement and leakage of ground storage. Penetrations and openings for vents, overflows, and hatches need to be checked carefully to ensure they are screened and/or locked.

The frequencies shown are suggested frequencies which may be modified as individual installation conditions warrant. Inspection actions and frequencies for tanks made of other types of materials (e.g., steel) are possible subjects for future articles.

The types of comprehensive interior inspections fall into three categories: (1) drain, clean and inspect; (2) underwater inspection; or (3) float down inspection. One of the more popular

methods is drain, clean and inspect; however, underwater inspections with either a diver or a remotely operated vehicle are increasing. Float down is likely the least used method. Common problems found by inspectors are no bug screens on vents and overflows, cathodic protection systems not operating or not adjusted properly, hatches are not locked, the presence of lead paint interiors, lead paint exteriors, and the presence of non-NSF approved paints.

Keeping records and thorough documentation cannot be emphasized enough. Consistent forms and checklists help ensure that the same points are inspected and evaluated each time. Quantitative measurements are also important to document the condition of paints, coatings, and structural integrity. Photographs with adequate field notes can be a valuable tool as can videotaping with audio explanation.

MAINTENANCE

Maintenance of storage facilities is conducted on a very system specific basis. Maintenance activities include cleaning, painting, and repair to structures to maintain serviceability. The Water Supply Rule requires adhering to AWWA Standards, National Sanitation Foundation (NSF), and American Na-
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TABLE 1 INSPECTION/MAINTENANCE PROCEDURES FOR STORAGE FACILITIES

INSPECTION	ACTION	FREQUENCY
Foundations, concrete	Check for settlement, cracks, spalling, and exposed reinforcing; repair as necessary with 1 part cement to 1 part sand.	SA
Walls	Check exterior for seepage; mark spots	SA
	Check exterior and interior for cracks, leaks, spalling, etc.	A (Spring)
	Remove loose, scaly, or crumbly concrete; patch with rich cement grout; paint grout with iron waterproofing compound.	A
	Chip out cracks, repair with cement slurry.	A
	For cracks in pre-stressed tanks, consult designing and/or erecting company.	A
Expansion joints	Check for leakage; check for missing filler; clean and repair as necessary	SA
Roofs	Check condition; check hatches; check screens on openings. Clean as necessary.	SA
Earth embankments	Check for erosion, burrowing animals, improper drainage and leakage through embankment, repair as necessary; if leakage through embankment exists, drain tank and look for crack in tank walls or bottom	SA

Note: A = Annually; Q = Quarterly; SA = Semiannually; V = Variable, as conditions may indicate

Source Protection:

Kick It Up a Notch

Contributed by Ashley Lucht,
Source Protection Specialist

Most of you are familiar with the usual source protection rhetoric... Source protection – it's in your hands; drinking water – it's only as clean as its source; source protection – our first line of defense.

And most of you are also familiar with the usual efforts put forth by water systems to get source protection to be more active – timely updates of plans, distribution of landowner letters, posting of signs at watershed boundaries – but have you ever thought that there was more you could do? The answer is... YES, of course there is!!!!

Water Conservation

There are countless ways to protect your source, including many low-cost, low-effort solutions. One very easy way to start is with conservation, and conserving not only water, but also land. Conservation of water can be attained through replacement of old fixtures with aerating faucets, showerheads and low flow toilets. Or water can just be shut off when not in use, like when brushing your teeth. With regards to conserving land, land trusts are available to assist in placing land or part of it in a conservation easement. You might also look into selling the development rights to a land trust or, if you are in a source protection area, the water system. Great tax benefits exist in both circumstances to ensure you are fairly compensated for your property.

Land Conservation

Another conservation method could be using money available from the Water Supply Division to purchase land or development rights within your Source Protection Area. Each year the WSD has money to purchase land within a Source Protection Area that goes unused because water systems do not take advantage of it (or perhaps, don't know about). I am referring to the DWSRF money that is available to purchase land and/or development rights within a delineated source protection area. For more information and to see if you qualify please contact Eric Blatt at eric.blatt@state.vt.us or 802-241-3425.

Basin Planning

Basin Planning is an action that can assist you in leveraging your source protection plan efforts, because if it's good for surface water it's good for groundwater! Visit www.vtwaterquality.org/planning for information on how to contact your basin planner.

Neighborhood Clean-up

You can encourage homeowners to participate in Household Hazardous Waste Days. These days are usually held at least annually at town or regional locations and are normally FREE!! Water systems can alert users of upcoming events by placing inserts in water bills. Participation in these events allow homeowners to dispose of potentially hazardous materials at little or no cost while keeping them out of backyards and septs. The cumulative effect this could have is impressive. Water systems can also encourage neighborhoods to work together to get their septic tanks pumped at the same time. Companies may offer discounts if multiple tanks are pumped in the same neighbor-

hood. This would also encourage and ensure timely maintenance of systems. Composting is also easy, safe and an economical way to protect your drinking water source. When composting materials are used on gardens, flowerbeds or lawns, it reduces the necessity to add commercial fertilizer. Often commercial fertilizer is applied without consulting manufactures directions and without performing soil tests to see if commercial fertilizer is even necessary.

Reclassification

Groundwater Reclassification is an excellent option for those systems that have an isolated aquifer that they want to protect from future development pressures. The state can be petitioned to reclassify an aquifer or a source protection area to a Class II Groundwater Aquifer. This provides a greater level of protection from regulated activities. Currently all of Vermont is classified as Class III groundwater except in very few exceptions where groundwater has been reclassified as Class IV. Class III groundwater is suitable for individual domestic water use, while Class IV is non-drinkable.

Zoning

Finally, to get the most bang for your buck, consider employing the use of conservation overlay zones or districts. A few towns in Vermont have already incorporated overlay districts in their town plan with success. The WSD has a sample ordinance to begin the process of creating an overlay district available and willing to offer assistance in the process.

It is long overdue that we take the next step in protecting our sources. The cost we will incur and the threats to our future reliable water supplies are unimaginable if we continue to stay status quo.

SOME USEFUL LINKS:

Vermont Land Trust – www.vlt.org

EcoLogical Solutions – www.vteco.com

Vermont League of Cities and Towns – www.vltc.org

Very Small System Security Recognition Program

Contributed by Heather C. Young,
Water Systems Security Specialist



Water system security is alive and well in the Water Supply Division. In early 2006, Vermont Water Supply Division will be joining forces with the State of Texas and the Association of State Drinking Water Administrators (ASDWA) to participate in a pilot study called the Very Small System Security Recognition Program.

This pilot study will target non-transient non-community (NTNC) and community systems (PCWS) serving less than 3,300 people. Special attention is being brought to these systems because EPA has not required them to complete either a vulnerability assessment or emergency response plan. In addition, many of the very small systems include schools, nursing homes, and other susceptible "at-risk" populations. This pilot study is another initiative coordinated through the support of the Capacity Development Program.



Guidelines For Water Storage Tank Inspections And Maintenance

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tional Standards Institute (ANSI) for disinfection procedures and approval of coatings. Guidance in AWWA publications indicates that water storage facilities should be drained, cleaned and disinfected annually. The surfaces of the walls and floors should be cleaned thoroughly with a high-pressure water jet, sweeping, scrubbing or other methods. All water and dirt should be flushed from the tank. Painting is suggested on an as needed basis.

Goals of the Pilot Study

- Recognize very small systems that have been proactive with enhancing the security of their system.
- Assist and encourage all very small systems to consider security within their existing structures.
- Energize systems to do a vulnerability assessment. In turn, this will provide one training credit hour towards operator certification through the Capacity Development Program.
- Develop a standardized survey form and a recognition program for all states to implement.

Next Step

Beginning in January 2006, Heather Young (Water System Security Specialist) will be contacting approximately 100 systems to participate in the Very Small System Security Recognition Program. Water systems will be asked a core set of questions pertaining to security equipment and emergency response planning. Although this program is voluntary, it is a unique opportunity for security training and assistance.

What is a Vulnerability Assessment?

Vulnerability assessments aid water systems to evaluate their susceptibility to potential threats and identify corrective actions to reduce or mitigate the risk of serious consequences from terrorism, vandalism, or natural disasters.

What is an Emergency Response Plan?

Emergency response plans describe the actions that a drinking water or wastewater utility would take in response to a major event, such as natural disasters or man-made emergencies. They should address the issues raised by the utility's vulnerability assessment.

For more information about this program, please contact Heather C. Young at 802-241-3717 or 1-800-823-6500 (in-state), or email heather.young@state.vt.us

After cleaning and/or painting and before being placed in service, water storage tanks must be disinfected following the most current revision of AWWA Standard C652, Standard for Disinfection of Water Storage Facilities. Dechlorinate highly chlorinated water and check with wastewater department personnel before discharging into a sanitary sewer. Develop a plan to avoid adversely impacting the environment before discharging highly chlorinated water elsewhere.

The primary source of the material for this article is U.S. Army Center for Health Promotion and Preventive Medicine Information Paper No. IP 31-019 - Maintaining High Drinking Water Quality in Finished Water Storage Tanks and Reservoirs published July 1997.

New Monitoring Schedules for 2006

Contributed by Elizabeth Hunt,
Support and Planning Chief



The Water Supply Division is once again busy in preparing monitoring schedules for 2006. The format of these schedules will be vastly different than previous years and new information will also be included to more closely match federal monitoring requirements.

These changes are due to the Water Supply Division switching to an EPA database for public water system information—SDWIS. SDWIS (Safe Drinking Water Information System) is a more complex database than our old one and is more rigid in looking at monitoring compliance. We are currently reviewing all of the schedules to ensure that they match the federal monitoring requirements, and that any waivers or reductions in monitoring specific to your system are entered. In order to help you interpret the new monitoring schedule format, we will include information in the mailing explaining the format and abbreviations used in the new printed schedules.

One of the major changes is that the schedules now specify whether the sample should be taken in the “distribution system” or at an “entry point.” This distinction is very important both for public health protection and for compliance determinations. Typically, we reviewed this distinction on the lab reports and the entry point or distribution point distinction was not entered into the database. With SDWIS, the computer will now be doing additional compliance checks on this distinction, so you will need to make sure that you are reporting this data correctly to the lab and that the lab is reporting the information to us.

Here’s a quick review of the distinction between an entry point sample location and a distribution sample location.

Entry Point Samples

An entry point sample location is a sample point that is after any treatment and storage that your system may have and prior to entering the distribution system. If you do not have any treatment at your system, this sample should be taken prior to the distribution system. Some systems without sam-

pling taps may be taking their entry point samples at the first tap. These are considered entry point samples and should be labeled as such.

You will have one entry point for each source that independently enters your distribution system. If you have multiple sources that join prior to distribution then these “joined” sources would have one entry point sample location. We have established a specific number for each entry point associated with your system. These are labeled as EP001, EP002, etc. We will note these on your monitoring schedule along with the storage, treatment, or source facility associated with the entry point. If you have more than one entry point, you will need to distinguish these samples clearly on your collection form (i.e. “EP001—Chlorination Building”).

The following types of samples are routinely collected at entry point locations: inorganic chemicals (IOCs), volatile organic chemicals (VOCs), synthetic organic chemicals (SOCs), nitrate, cyanide, and radiologicals.



Distribution Point Samples

A distribution sample location is located within the distribution system. You may have many different distribution sample locations based on requirements under the Lead & Copper Rule, the Total Coliform Rule, and the Disinfection Byproducts Rule. On your lab chain-of-custody form, you should note these samples were taken in the distribution system and the specific location within the distribution system where they were taken (i.e. Distribution – 57 Main St. Kitchen Sink). If you are a system that has separate and distinct distribution systems that do not combine with each other, you will need to take samples from each distribution system. Your monitoring schedule will note this by labeling your distribution systems with DS001, DS002, etc. Each distribution should also have a reference name, such as Lower Camp Distribution System—DS001 and Upper Camp Distribution System—DS002.

The schedule below indicates that the sample should be taken at EP001—an Entry Point that is at the treatment plant, but prior to distribution. The Monitoring Period Begins on 1/1/2006 and the Sample is due to be collected before 12/31/2006. The last line identifies the specific analyte (Nitrate), its EPA code number (1040), any specific seasonal period within which it should be collected (1/1 to 3/31 or first
(continued on page 12)

FACILITY	TP001	TYPE TP	TREATMENT PLANT 1	EP001	EP			
Analyte Group Name	CDS FOR NITRATE		Mon Prd Begin	1/1/2006	Due Before	12/31/2006		
Analyte Name	Code	Seasonal Period	State Year	Sample Req.	Last Taken	Number Taken	Schedule Satisfied	Still Due This Year
NITRATE (AS N)	1040	1/1 to 3/31		1 per YR	3/3/2006	0	FUTURE	<input type="checkbox"/>

This is an example of a typical nitrate schedule as it will appear on the new monitoring schedule.

A New Guidance Document Defines “Control”

Contributed by Eric Law,
Staff Permit Specialist

Under Vermont law (10 VSA, Chapter 56) a person who owns or controls a public water system is responsible for compliance with applicable regulations. This means that a wholesaler water system wishing to consolidate with one or more consecutive public water systems must demonstrate ownership or control of the consecutives. Outright ownership is straightforward and easy to understand, but control of a public water system is not. In order to better assist the regulated community and ourselves, the Division has created a new jurisdictional guidance document, which, among other things, defines control. The new guidance document should make it easier for public water systems to consolidate via a wholesaler-consecutive agreement.

A consecutive water system can be absorbed into a wholesaler water system if the wholesaler demonstrates “control” over the consecutive. In order to establish “control” of a consecutive water system, the wholesaler and the consecutive must co-sign an agreement containing the following items:

- The wholesaler issues public notice to all users of the consecutive water system.
- The wholesaler issues consumer confidence reports to all users of the consecutive water system.
- The wholesaler includes the consecutive water system in all sampling plans and conducts all required monitoring within the wholesale and consecutive system as a combined single distribution system.
- The wholesaler accepts all responsibility for the quality of the water in the consecutive distribution system.

- The wholesaler accepts all responsibility for the quantity of water delivered throughout the consecutive distribution system.
- The wholesaler maintains all infrastructure (including distribution piping) within the consecutive water system.
- The wholesaler must make all necessary improvements to the consecutive water system to meet the technical requirements of the Vermont Water Supply Rule.

As a reminder, the wholesaler-consecutive agreement must be signed by persons legally authorized to represent each party.

If all seven (7) items are included in the wholesaler-consecutive agreement and the Division determines that con-



Eric Law, *Staff Permit Specialist*

trol is effective, then the consecutive is absorbed into the wholesaler and regulated by the Division as one system.

For more information on the new jurisdictional guidance document and/or the Division’s expectations for a wholesaler-consecutive agreement, please call Jay Rutherford at (802) 241-3434.

VT Drinking Water Week How You Can Participate

Vermont Drinking Water Week (DWW) is May 7-13, 2006. This year’s theme is Who’s Behind The Faucet. This theme is about you the operator, lab technician, clerk, board member, and other individuals that contribute to providing customers with safe drinking water.

The Water Fair is scheduled for Friday, May 12th on the state house lawn. We will feature performances by the National Theatre for Children, lawn games, educational displays, water tasting contest, award presentations to poster winners and more...

The DWW Committee is busy working on the programs and plan on having the web site updated with current information on the 2006 activities by the end of January. If you can spare the time and want to participate as a committee member, we meet the 2nd Wed. of the month. If you do not have the time and wish to be a sponsor we welcome financial support and recognition is given. Financing this program is one of the most difficult aspects of putting on the DWW activities. At this time we are under funded by about \$1000.00 so please review your water system budget and help out if you can.

Another way you can help us with the DWW celebration is to contact your local school about participating in the poster contest and/or attending the Water Fair. This years theme is perfect for giving tours of your system or getting into a classroom to share what you do. Maybe you want to have the National Theatre for Children do a performance at your school during DWW week. We are very interested in knowing of any programs such as open houses and school presentations you may do locally.

Contact Elizabeth Walker at ewalker@neruralwater.org or leave a message at 1-800-556-3792 ext. 321, if you want to be a sponsor, join our fun committee or want to share your ideas.

How About a “Water Star” Program?

Contributed by Eric Law,
Division Permit Specialist

Ask anybody about the Energy Star Program and 64% of them will tell you it is the federal government’s volunteer labeling program designed to identify and promote energy-efficient products. It is very likely that the persons you ask will even know why the program exists, which is simply to reduce greenhouse gas emissions. Ask the same persons about the 1992 Energy Policy Act and you are likely to receive a blank look.

The Energy Policy and Conservation Act is best known for prescribing energy conservation standards for appliances and new efficiency standards for buildings, industries, and transport. What is not widely known amongst water professionals—except of course plumbers—is that this same act set uniform conservation standards for toilets, urinals, showerheads, and faucets for the 1st time in US history. The irony here is that the most important water conservation measures to date are not recognized as readily as the Energy Star Program. The irony is not lost on the EPA, which has proposed a sister organization to promote the efficient use of water.

The 1992 Energy Policy Act set maximum-water-use standards for plumbing fixtures. For example, a gravity tank-type toilet which allowed 2.5 gallons/

flush before January 1st, 1994 could no longer be manufactured after January 1st, 1994 because it now had to meet the federal maximum-water-use efficiency standard of 1.6 gallons/flush. Maximum efficiency standards are extremely valuable but oddly enough not the mission statement of a program like Energy Star. The goal in this organization is to transcend regulation and set the energy efficient bar even higher.

The Energy Star Program is a volunteer partnership between government and industry which aims to offer businesses and consumers energy-efficient solutions. Essentially, the Energy Star Program sets strict guidelines and applies an “energy star” label to only those products that meet the strict guidelines. Businesses are motivated to create star-rated products because they appeal to not only the environmentally-conscious consumer but every consumer who wants to save a buck. The logic has proved successful as there were only a few computers with an energy star label in the mid-1990s and today you are hard-pressed to find an appliance without the label. The success of the Energy Star Program leads many water professionals in both the public and private sector to believe that a national environmental efficiency organization can help address the country’s water supply challenges.

The fact that many people would dispute the claim that there are water supply challenges and crises throughout the country is one of the fundamental reasons to create a national organiza-

tion. The first item of the national agenda would be to enhance the public’s awareness and acceptance of the need for water efficiency. In addition to education, a non-profit national water efficiency organization could act as a one-stop clearinghouse for product testing and research, comprehensive efficiency standards (product labeling), and market influence.

On December 1st, 2005, the California Urban Water Conservation Council (CUWCC) presented their final report on a proposed national water efficiency organization to the Environmental Protection Agency. In the months leading up to this final report, CUWCC had been seeking the opinions and value judgments of such stakeholders as tradesmen, developers, environmental groups, academia, manufacturers, and government officials at every level through a wide variety of mediums. The stakeholders have spoke and overwhelmingly favor a national water efficiency organization of some kind (visit http://www.cuwcc.org/cwe_workshops.lasso). Water professionals now wait for the EPA’s response, but in the meantime water utilities in particular would be wise to anticipate the impacts of a national water efficiency organization. It is not a matter of if, but when such important policy and planning at the highest level will influence water demand on your system.



New Monitoring Schedules for 2006

(continued from page 10)

quarter), the state year or sequence year in which it should be collected (only applies to multi-year schedules), the number of samples that should be taken and the frequency (1 per year), the date the last nitrate sample was taken (3/3/2005), the number taken so far during the referenced monitoring period (none), the status of the schedule (Future) and a check box to indicate if it is due during upcoming monitoring year.

The Division is asking systems to carefully review their new schedules. We anticipate that these schedules will be mailed during the first quarter of 2006. Additional information will be included with the schedule to aid in this review and Division personnel will also be available to make this transition as smooth as is possible.

Questions can be directed to Billy Kahn at 1-800-823-6500 (toll free in VT) or 802-241-3423.

Operator Training and Examination Schedule

Date	Time	Class Name	Contact	TCHs	Fee	Location & Comments
February 7	1:00 – 4:30	Cross Connection Control Seminar	VRWA	3	\$30*	Howe Center, Rutland
February 9	9:00 – 12:30	How to Prepare for a Sanitary Survey	VRWA	3	\$30*	Cyprian Learning Center, Waterbury
February 10	9:00 – 12:00	Vermont Water System Annual Feedback	VRWA	0	na	Vermont Technical College, Randolph
February 15	9:00 – 12:30	UV Disinfection/ Disinfection Alternatives	VRWA	3	\$30*	Cyprian Learning Center, Waterbury
February 21	TBA	Intro to Cross Connection Control Surveying	NEWWA	6	TBA	Champlain Water District, South Burlington
February 21-24	TBA	Cross Connection Control Survey Course (Intro Course is a pre-requisite)	NEWWA	23	TBA	Champlain Water District, South Burlington
March 9	9:00 – 12:30	How to Prepare for a Sanitary Survey	VRWA	3	\$30*	St Albans Recreation Center, St Albans
March 15	9:00 – 12:30	Campground Water System Operations & Maintenance	VRWA	3	\$30*	Howe Center, Rutland
March 16, 23 & 30	8:00 – 12:30	Water Works Math	VRWA	12	\$100*	Cyprian Center & Skylight, Conference Room, Waterbury
March 21	—	Water System Hydraulics	NEWWA	6	\$60** \$120*** \$160	Champlain Water District, South Burlington
March 21	—	Water System Hydraulics	NEWWA	6	\$60** \$120*** \$160	Rutland Waste Water Treatment Facility, Rutland
April 5-6	—	New England Water Works Association Spring Exhibit	NEWWA	-	-	Worcester, MA
April 19	—	Hands on Valve Operation and Maintenance	NEWWA	6	\$60** \$120*** \$160	Champlain Water District, South Burlington

Date	Time	Class Name	Contact	TCHs	Fee	Location & Comments
April 20	—	Hands on Valve Operation and Maintenance	NEWWA	6	\$60** \$120*** \$160	St Johnsbury Waste Water Treatment Facility, St. Johnsbury
April 21	8:30 – 12:00	Cost Savings through Electrical Energy Efficiency	VRWA	3	\$30* Enosburg	Enosburg EMS Facility,
April 28	8:30 – 12:00	Cost Savings through Electrical Energy Efficiency	VRWA	3	\$30*	Manchester Community Building, Manchester
May 3	Class 2 9:00 – 12:00 Class 3,4 & D 1:00 – 4:00	Water System Operator Exams	Pre-Registration Required, Contact WSD	—	Class 2 \$15* Class 3,4,&D \$40*	Waterbury: Stanley Hall, Room 100 Rutland: Howe Center, UVM Extension
May 4	—	GMWEA Spring Meeting	GMWEA	3	TBA	Killington, VT
May 18	—	VRWA Annual Conference and Trade Show	VRWA	3	TBA	Fairlee, VT

*Fee is waived for any operator employed by any Vermont Public Community or Non-Transient Non-Community Water System Operator who operates a water system serving a population of 3,300 or fewer.

**Fee is reduced for any operator employed by any Vermont Public Community or Non-Transient Non-Community Water System Operator who operates a water system serving a population of 3,300 or fewer.

***Cost is reduced for GMWEA and NEWWA members.

NEWWA New England Water Works Association, 125 Hopping Brook Road, Holliston, MA 01746
Phone: 508-893-7979, Fax: 508-893-9898, www.newwa.org

VRWA Vermont Rural Water Association, 187 St. Paul, Burlington, VT 05401
Call: 800-556-3792 or 802-660-4988, Fax: 802-660-4990, www.vtruralwater.org

GMWEA Green Mountain Water and Environment Association, VT League of Cities and Towns,
89 Main Street, Suite 4, Montpelier, VT 05602
Contact: Jessica Hill at 802-229-9111, Fax: 802-229-2211, E-mail: jhill@vlct.org, www.gmwea.org

WSD Water Supply Division, DEC, Old Pantry Bldg., 103 South Main Street, Waterbury, VT 05671
Toll Free in VT: 800-823-6500 or 802-241-3400, Fax: 802-241-3284, www.vermontdrinkingwater.org

For Operator Training:

Contact: Water Supply Division at 800 823-6500

For Capacity Development:

Contact: Roger Bergeron at 802-241-1411 or 800 823-6500, E-mail: roger.bergeron@state.vt.us

Water Supply Division STAFF REFERENCE LIST

STAFF	CONTACT INFO	TITLE	RESPONSIBILITIES
Vacant		Certification Officer	Operator Certification Officer and serves as the contact the Total Coliform Rule
Helen Banevicius	241-3401	Support Staff	Chemical data entry and email addresses
Roger Bergeron	241-1411	Capacity Development Specialist	Manages a number of initiatives that helps the State meet the Capacity Development Program provisions of the Safe Drinking Water Act
Eric Blatt	241-3425	Engineering & Financial Services Section Chief	Oversees the engineering services that administer construction permits for public water systems, the DWSRF Loan Program and Capacity Development Program
Greg Bostock	241-3407	Senior Division Engineer	Administers the Construction Permits Program for water systems in Addison, Chittenden, Franklin, Grand Isle and Washington Counties. Provides engineering support for other regulatory programs administered by the Division
Tom Brown	241-3428	Systems Analyst	Conducts sanitary surveys for NTNC & PCWS, issues operating permits, provides technical operational assistance
Jackie Carr	241-4293	DWSRF Project Development Specialist	Helps water systems obtain DWSRF loan funding to advance water system improvement projects.
Alex Elliott	241-3625	Division Attorney	Provides general legal services to the Division with primary emphasis in enforcement, legislative and regulatory drafting statutory construction, record requests and general guidance development
Rob Farley	241-3412	Systems Analyst	Conducts sanitary surveys for NTNC & PCWS, issues operating permits, provides technical operational assistance
Shari Gaylord	241-1477	Support Staff	Consumer Confidence Report entry, well reports, inventory and rolodex updates and sanitary survey data entry
Don Haddox	241-4226	Systems Analyst	Conducts sanitary surveys for NTNC & PCWS, issues operating permits, provides technical operational assistance
Tina Hubbard	241-1412	Source Protection Specialist	Conducts source protection planning for community and NTNC water systems; evaluates monitoring waiver applications. Coordinates GIS mapping of source protection areas and groundwater reclassification areas and provides technical assistance for groundwater protection
Elizabeth Hunt	241-3409	Support and Planning Section Chief	Oversees planning for the Division, security and emergency planning, support for the Division and outreach and education, management of the DWSRF, budget management and Federal and State regulatory coordination
Billy Kahn	241-3423	Compliance Coordinator	Manages Phase II/V implementation/compliance, all chemical water quality monitoring
Laura LaFleur	241-3403	Support Staff	Enters/manages well driller info, billing statements, monthly reports, requests for public information, storage room management and supply ordering
Eric Law	241-4656	Permit Specialist	Develops permits for PCWS and NTNC systems
Ashley Lucht	241-3424	Source Protection Specialist/ Lake Champlain Project Coordinator	Conducts source protection planning for community and NTNC water systems; evaluates monitoring waiver applications. Coordinates GIS mapping of source protection areas and groundwater reclassification areas and provides technical assistance for groundwater protection – Managethe Lake Champlain SourceProtection Program & shoreline source protection outreach
Ryan McCall	241-3417	Planning and Outreach Specialist	Provides support to staff with outreach/education projects; develops Division newsletter; coordinates Federal & State rules; develops Division strategic plan and represents Division at various annual conferences & events

MISCELLANEOUS NUMBERS

General Line – 802 241-3400 • Toll Free in VT – 800 823-6500 • Fax – 802 241-3284

STAFF	CONTACT INFO	TITLE	RESPONSIBILITIES
Jeannine McCrumb	241-3422	Compliance Analyst	Administers the following rules under the Safe Drinking Water Act: Lead and Copper Rule, Public Notification Rule, Consumer Confidence Report Rule, and Microbial and Disinfection Byproducts Rule, Surface Water Treatment Rules. Coordinates new/existing system program requirements among sections within the Division. Issues bottled water permits
Susan Mitchell	241-3414	Transient Non-Community System Specialist	Assists with the TNC Program, TNC Coliform and Nitrates sampling
Dennis Nealon	241-3411	Division Hydrogeologist	Issues water supply source permits for Chittenden, Grand Isle, Addison, and Bennington Counties as well as manages Well Driller Licensing Program and delineates source protection areas
Jean Nicolai	241-3405	Operations and Compliance Section Chief	Oversees the Operations and Compliance Section dealing with compliance, certification, system operations, and the TNC Program
Marion Okuszki	241-3588	Support Staff	Operator certification program support, bacti data entry, typing and mail processing
Ellen Parr Doering	241-3410	Compliance and Certification Manager	Supervises compliance & monitoring of public water systems and Operator Certification Program, identifies enforcement actions and oversees the Bottled Water Program
Rodney Pingree	241-3418	Water Resources Section Chief	Oversees the Water Resources Section managing public water source-related activities and groundwater protection such as source permits, well driller licensing and well completion report database
Timothy Pricer	241-1413	SIDWIS Administrator	Oversight and management of the Water Supply Division's state wide Inventory of water systems and suppliers
Tim Raymond	241-3419	Operations Manager	Oversees operations functions of the Operations Section, coordinates emergency response activities, coordinates enforcement activities, supervises the System Analysts, in-state bottled water oversight and serves as a CPE team member
Bryan Redmond	241-3408	Drinking Water State Revolving Fund Program Specialist	Manages the DWSRF Projects Priority List and other DWSRF Program activities
Jay Rutherford	241-3434	Division Director	Oversees entire Water Supply Division activities and provides national coordination
Ray Solomon	241-3400	Environmental Scientist	Provides technical assistance to primarily surface water systems regarding application of water treatment chemicals in the process of filtration and disinfection. Assists water systems with pilot studies for various treatment processes and provides water chemistry training.
Jim Siriano	241-1410	Transient Non-Community System Supervisor	Transient Non-Community Program supervisor – conducts sanitary surveys, Source Water Assessments, GWUDI determination, issues operating permits for TNC water systems and technical assistance
Scott Stewart	241-3426	Division Hydrogeologist	Issues source permits for Orange, Rutland, Washington and Windsor Counties as well as manages the well driller licensing rule, well construction standards and serves as contact point for drought issues
Mary Triplett	241-1478	Temporary Support Staff	Scanning and special support team projects
David Webb	241-2599	Senior Division Engineer	Administers the Construction Permits Program for water systems in Bennington, Caledonia, Essex, Lamoille, Orange, Orleans, Rutland, Windham, & Windsor Counties along with coordinating the CPE program
Ken Yelsey	241-3427	Division Hydrogeologist	Issues water supply source permits for Franklin, Orleans, Caledonia, Essex, Lamoille, and Windham Counties as well as manages the well completion reports
Heather Young	241-3717	Security and Emergency Planning Specialist	Provides security vulnerability assessment & emergency response planning assistance to public water supply systems

ACRONYMS

CPE – Comprehensive Performance Evaluation
DWSRF – Drinking Water State Revolving Fund
GWUDI – Groundwater Under Direct Influence of surface water

NTNC – Non-Transient Non-Community water system
PCWS – Public Community Water System
TNC – Transient Non-Community water system

2006 Water Tasting Contest

The Drinking Water Fair Committee welcomes all public water systems to enter the 2006 Water Tasting Contest. As in years past, the Water Tasting Contest will be held on the State House lawn during the Drinking Water Fair on Friday, May 12th, 2006. Your water will be tested and judged by selected school students and a panel of judges. Participants will remain anonymous to the students, judges, and all other fair attendees with the sole exception of the winner, who will be announced during the fair festivities.

Applications should be received on or before May 1st to allow time for processing. All participating systems must be in compliance with both State and Federal rules and regulations (including water quality standards in Subchapter 21-6 of the Vermont Water Supply Rule). There are two categories for this contest, surface water systems and ground water systems. A minimum of two (2) gallons of your water are requested, clearly marked with public water system name, type of system (groundwater or surface water), and contact person on each container supplied by you. The Water System can use a container of their choosing, but glass is strongly recommended. Samples should be drawn within 24 hours of the contest and will be served at room temperature.

We will have a designated area for samples to be delivered to on the State House lawn. Each sample will be categorized and marked with a letter for identification at the time of delivery. **All samples must be in no later than 9 am on May 12th.** For those public water systems who will be unable to send a representative to the fair but want to enter the water tasting contest, there will be a committee member or volunteer collecting water samples at three location across the state: 1. Brattleboro at the corner of Route 5 and 9 in the Pizza Hut Parking lot, 2. West St., Rutland in front of Center Street Artisans, and 3. Main St., St. Johnsbury in front of the old Firehouse from 3:00 to 4:00 PM on May 11th.

Please contact Jessica Hill with any questions or if you need additional information:

802-229-9111

Vermont League of Cities & Towns

Chair, Vermont Drinking Water Week Committee

Sincerely,

Vermont Drinking Water Committee

Jessica Hill

Eric Law

Tim Leahy



JOIN THE FUN! SEE YOU THERE!

Application For Water Tasting Contest

When: May 12th, 2006

Where: State House Lawn, Montpelier, VT

During: Drinking Water Fair Festivities

Please sign me up! I (we) want to join the FUN! We will be glad to supply 2 gallons of our water to be sampled, so we may claim bragging rights of the BEST TASTING WATER IN VERMONT!

Please fill in all of the following information:

Name of system: _____ WSID # _____

Address: _____

Town: _____ Zip: _____

Type of System: Ground Water _____

Surface Water _____

Drop off point: Montpelier on 5/12/05 (by 9 AM) _____
State House Lawn

Brattleboro on 5/11/05 (between 3 and 4 PM) _____
Intersection of Route 9 and Route 5 (Pizza Hut Parking Lot)

Rutland on 5/11/05 (between 3 and 4 PM) _____
West St. in front of Center Street Artisans

St. Johnsbury on 5/11/05 (between 3 and 4 PM) _____
Main St. in front of the old Firehouse

Name of Operator: _____

Contact Person (If other than above): _____

Telephone Number: _____ Fax Number: _____

Application Fee: **FREE for 2006**

Send to: Vermont Drinking Water Week
Water Tasting Contest
89 Main St., Suite 4
Montpelier, VT 05602

I understand that this water system must be in compliance with all State and Federal drinking water standards to qualify for this contest.

New ANSI/NSF Standard 60 Certifications for Sodium Hypochlorite

Contributed by Elizabeth Walker, *VRWA*

This is a follow-up to an article I wrote a year ago concerning the use of sodium hypochlorite. Since that time, a popular name brand (Clorox) has received the ANSI/NSF Standard 60 certification from the Water Quality Association (WQA) for two of their products. The Vermont Water Supply Division now accepts certifications from WQA along with three other organizations.

This should make many very small community and NTNC systems happy as they can now purchase smaller volumes and lower strength products locally. There are four companies that are certified for testing in accordance with the ANSI/NSF Standard 60 (Drinking Water Treatment Chemicals—Health Effects). There could be other off-the-shelf brands besides Clorox that have this certification, although after checking in several of the large chain stores, they did not have any other product that met the ANSI/NSF Standard 60 certifications. A small local grocery store may have a different brand that carries the certification.

The label may not necessarily indicate that the product has the certification or carry the organization logo so it is important to go to the appropriate website and print out a copy of the webpage that specifies that the company and product name is certified. Keep this in your files or post it where





material is stored. When a sanitary survey is conducted you will likely be asked for this information.

Below is a table of the organizations, their contact information and logo. Remember if the logo is not on the label, it does not necessarily mean the product is not certified. All products by any given company may not be certified; please be sure the specific product you want to use is certified. Scented bleaches or bleaches with other additives would not be certified.

Doing a search of the websites can be somewhat of a challenge so the following will help you find what you need a little more easily:

- For CSA International, you can go to the website and do a word search from main page, but I was unable to locate certifications for any water treatment chemicals.
- For NSF, go to: <http://nsf.org/certified/PwsChemicals/> then just type in the product name or type.
- For United Laboratories, click on Certifications from their main website (on the left toolbar). Then click on Keyword Search (listed under General Search) and type in the chemical name. Click on Link to File for specific information on products by listed company.
- For the Water Quality Association, go to the main webpage and click on Product Certification (on the left toolbar). Then select Product Listing (bottom of right toolbar).

There you have it; just remember to handle and store these chemicals safely. Also remember to pay attention to the strength solution you are using and adjust your mixing and feed rates accordingly. Contact Vermont Rural Water Association with any questions or concerns.

COMPANY NAME	CONTACT INFORMATION	LOGO ON PRODUCT
CSA International	178 Rexdale Boulevard Toronto, Ontario, Canada, M9W 1R3 1-800-463-6727 http://www.csa-international.org/	
NSF International	789 Dixboro Rd. Ann Arbor, MI 48105 734-769-5143 http://www.nsf.org/	
Underwriters Laboratories, Inc.	333 Pfingsten Road Northbrook, IL 60062 847-272-8800 x42418 http://www.ul.com/	
Water Quality Association	4151 Naperville Rd Lisle, IL 60532 630-505-9637 http://www.wqa.org/	



Department of Environmental Conservation
Old Pantry Building
103 South Main Street
Waterbury, Vermont 05671-0403

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Visit us on the web at:

www.vermontdrinkingwater.org

If you have any comments or suggestions about this newsletter, please contact the editor, Ryan McCall, at 802-241-3417 or ryan.mccall@state.vt.us.

Waterline

The word "Waterline" is written in a large, blue, brush-stroke font. To the right of the text is a small, square, black-and-white photograph showing a close-up of a water tap handle and spout.

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- **Vermont's Groundwater Program**
- **Transient Non-community Water System Corner Permitting, Water Quality Monitoring, and Operator Certification**
- **Meet Our Staff: Susan Mitchell, TNC Specialist**
- **Flowing Forward**
- **Guidelines For Water Storage Tank Inspections And Maintenance**
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