

Approved Minutes of the Technical Advisory Committee Meeting

June 18, 2024

**Participation by videoconference**

**Attendees:** Sharon Bissell  
Cristin Ashmankas\*  
Jen Fleckenstein\*  
Ken White\*  
Craig Heindel  
Bruce Douglas\*  
Eric Deratzian  
Tom DeBell\*  
Craig Jewett  
Gunner McCain\*  
Claude Chevalier  
Sille Larsen\*  
Nate Kie  
Mark Bannon  
Sheri Young\*  
Roger Thompson\*  
Jeff Williams  
Kevin Eaton  
Terry Shearer  
Frederic Larsen  
Julia Beaudoin  
Steve Revell\*  
Ernie Christianson\*  
Megan Kane

\*Technical Advisory Committee (TAC) members or substitutes

**Scheduled Meetings:**

All meetings are scheduled as virtual meetings.

July 16, 2024	2-4 PM
September 17, 2024	2-4 PM
October 15, 2024	2-4 PM
November 19, 2024	2-4 PM
December 17, 2024	2-4 PM

**Agenda:**

The proposed agenda was accepted as drafted.

**Minutes:**

The draft minutes of the May 21, 2024 meeting were accepted with some minor wording changes and with a comment that the Vermont Health Department objected to reintroducing the odor test to the list of required water quality tests.

## **I/A Technology:**

Cristin reported that a pilot approval for the construction of up to 25 systems using crushed glass in lieu of mound sand has been issued to the Chittenden Solid Waste District. Best management practices for transportation, installation, etc. need to be developed. Sheri asked if any installations have been done and Cristin said that no one is ready to file an application at this time. Sheri asked if a Professional Engineer must be the designer and Cristin said that any Class B or higher Licensed Designer can do the design, installation and operational inspections. The approval document is posted on the DEC website for Innovative/Alternative Systems.

## **Municipal Water and Sewer Connection Stakeholders Group:**

Bruce said that this group, which was created by Legislative direction, is charged with looking at the permitting process for connections to municipal water and wastewater systems to determine if there are redundant permitting processes, and if the overlap can be reduced or eliminated. There is a diverse group of members including 4 community members, 2 Professional Engineers, Bryan Redmond, the Vermont Natural Resources Committee, the Vermont Agency of Housing and Community Affairs, and Bruce. Sille Larsen is facilitating the meetings, and the Division's Legal Counsel, Catherina Narigon, is attending the meetings and will be contributing to the report. The group began with a survey of all the permits or reviews required at the State and local levels. Bruce has assembled a flow chart of the State process. Cristin's group has summarized the data for how many State permits are issued each year that are based on connection to both municipal water and wastewater systems. The first of 3 meetings has been held.

## **Update of Wastewater System and Potable Water Supply Rules (WW Rules):**

Bruce reported that the process for making minor corrections to the 2023 version of the WW Rules has been delayed because the staff is overloaded with ongoing work. He expects the proposed revisions will be filed in July and that this will be an administrative update that does not require the full public process needed for major updates.

## **Potable Water Supply Design:**

Bruce said the definitions #106, #107, and #108 of the WW Rules define various portions of the water supply distribution piping. Water mains are the piping that is regulated by the Public Water Supply Rules. Water service pipes extend from a water main to a building, structure or campground. Water service pipes extend from a potable water supply system to a building, structure, or campground. The definitions should be clarified as to how more than one building, structure, or campsite can be connected.

The definition of design flow was discussed. Craig J. noted that some portions of some municipal systems do not meet the required 35 PSI pressure in the main.

Grouting of wells was discussed. Jeff said that detailed specifications for grout material is not needed. Jeff asked if the WW Rules should require that all wells be grouted. Craig J. said that the decision to grout should be left up to the well driller unless some specific contamination such as per- and polyfluoroalkyl substances (PFAS) is known to be present. Tom said that grouting does provide some protection to the well and the aquifer during flooding events. Claude asked if there are examples of PFAS contamination in drilled wells that are not grouted. Sille said that PFAS are a concern but that there are no detailed requirements on how to respond but the extent of groundwater aquifer contamination is being evaluated. Craig H. asked if the evaluation is publicly available. Sille said it is not because of ongoing legal action. Ken said that grouting makes sense in areas of known contamination but not for every well. Grouting is not possible with the concentric drilling method which is commonly used.

### **Booster Pumps:**

Booster pumps may have interior or exterior installations. Bruce talked with G. J. Garrow about the Vermont Plumbing Rules and interior installations are regulated under the Plumbing Rules. Craig J. said that booster pumps that connect to municipal water systems are no longer being approved by the Department of Environmental Conservation (DEC). Towns should update their regulations to conform to the DEC requirements.

### **Pipes and Pumps:**

Several types of well pumps and their installations were discussed. Craig H. asked if jet pumps should have a specific reference in the WW Rules. Claude suggested that putting more than one well pump in a well should be prohibited because any well service of the deeper pump requires removing both and because there is no appropriate way to attach the wiring to the riser pipes or install torque arresters. Jeff said he is having success with 2 pumps in one well by using 6.5" well casing and 3" pumps. He installs disconnects at the top of the well and can pull each pump separately. He often gets requests to install 2 pumps when a well is shared by two or more users so that each is responsible only for their portion of the system. Claude noted that having two pumps in a well prevents installation of torque arresters. These details will need to be worked out in the next phase of the WW Rule update when the specific details of each section are decided.

Roger asked if a building can have a water system with both public and non-public sources. Simply having a couple of valves to switch between sources is an inadequate level of protection for the public water supply. Ernie said that some municipalities disconnect from buildings that also have a non-public source connection.

Disinfection of the well and piping was discussed. Tom said that 8-12 hours is adequate if the chlorine level is correct. He said that the chlorine dosage into the well needs to be enough to ensure that all portions of the piping reaches 100 mg/l and that the discharge from every fixture needs to be individually checked to ensure full disinfection. Bruce asked if the AWWA C652 standard referenced in the WW Rules is reasonable and whether every installer/service provider

can afford to have a copy. Cristin said that a PDF copy is available for free. Tom said that the Vermont Health Department developed standards for disinfection of springs after they have been flooded.

Craig J. said that the fire suppression code requires a greater burial depth for water lines that serve fire suppression systems.

Drilled well installations were also reviewed. Claude noted the requirement that drilled wells be installed at least 10' into competent bedrock and asked about a situation where the well is drilled through 100' of clay and then 3' into bedrock. Cristin said that this is covered by the process that allows for alternative installations when the soil type and/or artesian conditions protect the well. Craig J. talked about installation certifications and that designers should not certify what the well driller does because the work cannot be checked. He thinks that the well driller should certify that part of the installation. Mark said that some well drillers are reluctant to write certifications. Gunner said that there will be an additional charge by the well driller for writing the certification. Cristin pointed out that because the certifications are done electronically using forms created by the DEC it would not add much work. Sheri asked if some wells must be tested before doing the installation certification. Cristin said that while quality testing is required it can be done after the installation certification is written.

The group discussed the issues related to a permit that specifies a well type when during construction a different well type might be suitable. Typically, this a permit calling for a bedrock well with isolation distances based on that type of construction. A change in well type might or might not require increased isolation distances based on site specific conditions. Changes to the WW Rules and to the language in permits might resolve this, though it will likely transfer more responsibility to the well driller unless a Licensed Designer is involved. Craig J. noted that some changes would require an updated overshadowing notification. The requirement for a waiting period associated with the notification will need to be addressed.

#### **Mound Sand:**

Sheri said the WW Rules should be amended to allow for use of sand meeting the specifications in the Rules or equivalent material such as crushed glass.