Approved Minutes of the Technical Advisory Committee Meeting

December 5, 2018

**Attendees:** Roger Thompson Steve Revell

Ernest Christianson Justin Willis

Denise Johnson-Terk Gunner McCain

Chris Russo Terry Shearer

Peter Boemig Carl Fuller

Rich Wilson Graham Bradley

Scott Stewart Rodney Pingree

Sille Larsen

**Scheduled meetings:**

There are no scheduled meetings. Ernie will schedule when needed.

**Minutes:** The minutes for the April 19, 2018 meeting were accepted as drafted.

**Rule Review:** Ernie said that the process of holding a series of public meetings at various locations around the state has been completed. Comments on the proposed Wastewater System and Potable Water Supply Rules (Rules) were received at these meeting and comments have also been submitted directly to Ernie. Ernie said that the Department hopes to file a request for a hearing by the Legislative Committee on Administrative Rules (LCAR) on December 19,2018. LCAR has 30 days to schedule a hearing and the Department hopes it might be as soon as January 3rd. It was suggested that one or more TAC members should attend in case there are any questions about the TAC position on any portion of the proposed Rules. Ernie will notify the TAC members when the date is scheduled so that any who wish can attend.

Ernie circulated a list of the comments that the Department has received to date. The TAC reviewed a subset of these comments selected by Ernie and discussed many of the ones proposing substantive changes to the proposed Rules.

There were comments about the process of flow metering to determine the flow for a type of project that does not have a design flow specified in the Rules or as a basis of a request for a reduction in the design flow for a project that has a design flow specified in Table 8-3. The proposed rules require daily meter readings for every day of operation of an existing building for a full year. The TAC discussed situations such as for a hotel where there is a short period, maybe two weeks, where the occupancy is effectively 100% and daily meter readings show consistent results. Also mentioned was that some facilities have special functions that take place only seasonally so that any shorter monitoring period must include these functions. The TAC supports a process where the Secretary can approve a shorter period of flow metering when justified. Ernie will revise the language but thinks that 6 months should be the shortest period.

Section 1-914(d)(2)(A) describes the type of pipe that shall be used in a pressure distribution system within a leachfield. One comment was that this should be specified as being Schedule 40 PVC pipe. The TAC members noted that there are other pipe materials of various specifications that are suitable and that there is no evidence of significant problems with the existing specification. The TAC recommended using the existing language.

Section 1-911(c)(1)(A) Table 9-3 specifies application rates for various types of leachfields based on soil characteristics. One comment was that gravel should be included in this list. The TAC agrees.

Section 1-919(b) addresses sites where the naturally occurring soil has a percolation rate of less than 1 minute per inch. Ernie suggested that the language be revised so that when the soil immediately below the system has a fast percolation rate, but slightly deeper soil has a slower percolation, the decision will be based on the deeper soil. The TAC agreed with this approach. The TAC also discussed situations where the existing soil has a percolation rate of less than one minute per inch while also meeting the sand size specifications for mound sand. Obviously, replacement should not be required. The Agency will consider if, when the naturally occurring soil has the texture of sand, the texture rather than the percolation rate should determine if the soil must be replaced and the TAC agrees.

One comment was that the design flow for residential dwellings connected to municipal wastewater systems with design flows of 50,000 GPD or more be reduced to 150 GPD per building. The TAC recommended retention of the current design flow of 210 GPD per building.

One comment was that a minimum standard for accuracy of GPS readings be established. The Rules propose that the location of water supplies and wastewater systems be located with GPS readings. The TAC suggested that a more reasonable requirement is to take a reading at the center of each proposed lot. If the lots are rearranged during the approval process, the readings would be updated. This level of detail is enough to track areas where development is occurring and to trigger reviews for issues such as wetlands, hazardous waste sites, and public water sources. The designers in the group said that they would never rely on GPS data in a permit application when determining compliance with isolation distances between water and wastewater systems and therefore the data has no use. The Agency agrees with the TAC recommendation and will use the language in the current (2007) Rules.

There was a comment about section 1-1002(i) which asked if cleanouts should be required in septic tank effluent lines. The TAC does not believe they should be required and recommends keeping the existing language.

There were comments about the proposed change in design flows for campgrounds. The Agency has reviewed the comments and proposes to return to the language in the current (2007) Rules. The TAC agrees with using the current 7-month design flows for all campgrounds regardless of the number of months they are open.

One comment noted that there is no specific formula for a safety factor that must be applied to a design flow that is determined by flow metering. The propose Rules discuss the need for a safety factor and the factors that should be considered. The TAC believes the proposed language is enough.

There was a comment about testing the soil prior to construction for excessive moisture that might cause compaction or smearing of the soil surface during construction. The existing and proposed Rules specify that the soil sample should be collected at 9” below ground surface. It was noted that some designs are based on the use of less than 9” of the naturally occurring soil. It was agreed that the soil sample could be from less than 9” based on the design of the system.

One comment suggested that the Rules should allow Class B Designers to design a manhole when it will be for a sanitary sewer collection line with 3 or fewer residential units with a design flow of 1,350 GPD or less. Ernie noted when the line is a sanitary sewer service line, a manhole is not required. When the line is a collection sewer line it must be designed by a Licensed Professional Engineer and they are approved to design manholes. The TAC noted that manholes should only be used when needed as groundwater is more likely to infiltrate into manholes than sewer lines constructed of modern materials. The TAC recommended keeping the proposed language.

One comment suggested that composting toilets meet the NSF 41 standard or an equivalent. The TAC noted that obtaining an NSF certification is expensive and might limit the number of toilets that could be used. The TAC also noted that the DEC could impose operational conditions for uses beyond for a single-family residence. The TAC recommended against adopting an NSF, or equivalent, standard for composting toilets.

One comment related to the section for minimum burial depths for sewer lines. The proposed Rule states that the minimum burial depth should be 48” and the comment was that this should be removed from the Rules. The DEC noted that this section is guidance and that a designer can specify alternative designs with justification. The TAC discussion was that for burial depth it might be sufficient for a designer to have a standard detail on the plan that indicates insulation and/or stronger pipe should be used when the burial depth will be less than 48”. The TAC recommended leaving the language as is.

Similar comments related to Section 1-1007 dealing with standards for construction of water and sewer lines that cross. The comments include pipe material, sleeving material, joint construction, and testing methods. The DEC noted that all of this is in the guidance section, was developed with the Public Water Supply Section, and a designer can propose alternatives that, in their judgment, are appropriate for the situation. The Regional Office staff will review these proposals to ensure there is justification for the alternative design.

One comment suggested a “grace period” that would allow for a permit application to be based on soil analysis using the current process rather than using the USDA Standards and the Munsell Color Book. The TAC members supported this, noting that the design requirements proposed in the Rules can be applied without referring to soil color. Existing test pit data that did not include descriptions of the soil structure could be used under the proposed Rules by assuming the most restrictive structure class. Anyone who believed that applying the structure factor would benefit the applicant could redo the test pit information. The Agency will propose a grace period for soil evaluations recorded on or after January 1, 2007.

One comment was that the graphics should be included in the Rules, not just posted on a web site. The TAC strongly supported this position.

One comment related to the setback from surface water. The comment suggested that rather than a single number the standard should be a minimum distance or a minimum travel time, whichever resulted in the greater setback from surface water. The TAC did not support this approach and recommended using the current language.

One comment asked that language be added stating that the Secretary shall approve the use of holding and pump out tanks as a supplementary system for storing a source separated waste fraction. One example is urine separation with the nitrogen in the urine being used as a fertilizer. The DEC noted that it is rare that a request is made for this type of use, that each situation is case specific, and that an appropriate permit can be granted under the Innovative/Alternative System section of the Rules. The TAC recommended continuing with the current approach.

There was a comment related to the Well Replacement Exemption. When the exemption for replacement of a failed water supply, which applies only to a single-family residence on its own lot is used, a form must be completed and filed on the town records. The form must be signed by a Licensed Well Driller if the water source is a drilled well or by a Licensed Designer if the water source is not a drilled well. The landowner must also sign. The form documents the existence of the well, giving it a “first in time” status so that a future wastewater system will not be installed too close to the replacement well. The form also documents any decreases in isolation distance from those specified in the Rules and the landowner accepts responsibility for any failure to identify existing or permitted but unconstructed wastewater systems that might affect the replacement water supply. The comment suggested that form for the exemption should be placed in the Rules. The comment also asked that specific language be added that a licensed well driller and the property owner could determine if a variance is required. The basis of the Well Replacement Language is in the Rules and the exemption could not operate without allowing a Licensed Well Driller to apply deviations to the isolation distances. Without such allowance to comply with the current and proposed Rules, the property owner needs to hire a Licensed Designer to justify the variances which is beyond the purpose of the exemption. The TAC recommends retaining the existing process.

An additional comment related to well replacements is that the existing language requires that the existing well be abandoned when using the exemption process. The goal of limiting a property to a single well, whether applying for a permit or using the exemption process, is to minimize the impact on neighboring property. The proposed Rules allow for one or more additional wells when all the required isolation distance is on property owned or controlled by the applicant. The TAC recommends this approach be allowed under the exemption process as well. The Agency will propose an exemption allowing a landowner to have 2 wells when the isolation zone for the new well does not extend onto neighboring property. The Agency’s proposed change will treat the lot subject to an exemption that same as one subject to a permit.

One comment asked that language be added that notes that construction of any groundwater source deeper than 20’ must be done by a Licensed Well Driller. This language will be added.

An additional comment was that the Rules should indicate that hydrofracturing must be done by a Licensed Well Driller and proposed some requirements for the work. The TAC agrees that the work should be done by a Licensed Well Driller. The TAC does not support adding specific construction standards beyond what is in the proposed Rules.

One comment was to maintain the FEMA based definition of floodway in the Wastewater Rules rather than referencing the Vermont Flood Hazard Area and River Corridor Rule. Ernie will look at this, but there should not be conflicting definitions in two or more sets of Rules that might apply to a project.

Ernie will finalize the responses to the comments, including those comments the TAC did not review, and circulate the comments to the TAC once Diane has reviewed them.

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# Executive Committee: Steve Revell, Ernest Christianson, Roger Thompson

Alternates – Claude Chevalier, Craig Heindel

# Subcommittees:

**Hydrogeology**

Craig Heindel, Bill Zabiloski, Mark Bannon, Scott Stewart, Steve Revell, Mary Clark, Roger Thompson, Peter Boemig, Ernie Christianson