

Approved Minutes of the Technical Advisory Committee Meeting

March 15, 2016

Attendees: Roger Thompson
Mary Clark
Ken White
Denise Johnson-Terk
Chris Russo
Scott Stewart
Ernest Christianson
Claude Chevalier

Gunner McCain
Andrew McBrearty
Rodney Pingree
Craig Heindel
Steve Revell
Peter Boemig
John Beauchamp

Scheduled meetings:

April 12, 2016 1-4 PM Annex Building 190 Junction Road, Montpelier
May 18, 2016 AM with exact time TBD ANR Regional Office, 111 West Street,
Essex Junction
June 10, 2016 PM with exact time TBD Essex Junction

Agenda:

The agenda was reviewed and accepted.

Minutes:

The minutes of the previous meeting, November 17, 2015 were reviewed and approved by email so they could be included in the annual report for 2015.

Meeting Schedule:

Additional meetings were scheduled as noted above.

Innovative/Alternative Systems:

Mary introduced Andrew McBrearty, P.E., from F.R. Mahony and Associates of Rockland Massachusetts. The company developed the Amphidrome Wastewater Treatment System. The Amphidrome System uses a Biologically Active Filter and operates as a sequencing batch reactor. The system operates by cycling between aerobic and anaerobic conditions. The cost for the basic single family residential system is \$7,500 plus the cost of the required tanks and installation. The estimated electrical cost is about \$200 per year. The required annual inspection cost is about \$300. The reactor tank is specific to the system and it may need to be obtained directly from the company. The company will work with local concrete casters for the needed tankage and the company has the required tanks available in fiberglass that can be easily transported. The company, or a certified installer, does the installation inspection and start-up procedure. Until a local installer is approved the staff from the company, which is located in Massachusetts, would do the work. Because the designs are very case specific, the plans for each proposed installation are reviewed at the home office. The systems include electronic monitoring equipment and the timing for the aerobic and anaerobic cycles can be adjusted to ensure proper operation of the system. The Amphidrome System has been in use for many years and has been approved for use in Massachusetts, Delaware, New Jersey, and North Carolina.

Mary will review the application for general use approval and contact the company for additional information if needed.

Well Completion Form:

Whenever a drilled well is constructed, the licensed well driller is required to attach a tag with an identification number and to submit a written report to the Agency of Natural Resources. The Agency enters the information into a data base that can be used by staff and by the public. This information is a valuable resource for landowners and design professionals. The form is in the process of being updated. Rodney reviewed the proposed changes which include a section on abandoned wells and a request that the SPAN (School Parcel Account Number) be included. Craig asked about situations where the well is located on a different parcel than the building it serves. The SPAN for the parcel where the well is located should be used. Claude noted that including the SPAN will be extra work for the well drillers because the homeowner or the town must be contacted to get the information. The assigning of the SPAN varies from town to town. In some cases the number is derivative so that it can easily be followed back to the original if the parcel has been subdivided, but in other towns an entirely new number is assigned. Craig asked if the SPAN can be added to the ANR Atlas. The hydrofracturing will be added to the heading on the form as one of the activities to be reported.

Ken noted that the new form asks for the GPS location to be expressed in decimal degrees. In the past the use of degrees/minutes/seconds has been acceptable. Rodney said that going forward the data must be in the decimal degree format.

Craig discussed the section of the report related to yield testing and wondered if the water level that existed under maximum pumping conditions could be obtained. In most cases the well yield is measured with a “blow test” and the water is expelled from the well down to the bottom of the drill bit. Craig said it would be helpful to note the date when the static level was measured. If done just as the drilling is completed, the well may not be fully recovered to the static level.

Ken said that Ken Yeltsy, from the Water Supply Section, had suggested placing a well tag on previously unrecorded wells when the well is hydrofractured. An identification number should also be assigned to the location when a previously unrecorded well is abandoned, even a tag cannot be placed on the well casing due to removal or burial.

Electronic Application Forms for Regional Office Permits:

Ernie said that the Agency is rolling out an updated electronic application form and process. The Agency has accepted electronic applications for several years and has been working to increase their use. The new form and process will be mandatory within a few months. The Regional Offices will go online with the new forms sequentially. The Agency is doing outreach to notify all licensed designers and will provide several training sessions during the implementation of the new system.

H.595:

Ernie discussed this bill which proposes to allow for the use of surface water as the potable water supply for certain buildings. The Legislature is actively considering the bill which just passed the House and has been forwarded to the Senate. The TAC discussed the issues related to use of surface water and how to ensure there is limited public risk. There are major concerns about designing a treatment system for surface water because the surface water quality can vary in extreme ways in very short periods of time depending on uncontrollable factors such as wind direction. The systems can also be affected by the location of the intake pipe with shallow intakes being at a higher risk. Scott raised strong objections to any use of surface water for non-community systems for several reasons including the difficulty in designing a system that treats for all possible surface water contaminants and concerns about detecting break through without a licensed operator providing continuous monitoring. TAC members generally share these concerns and discussed where the balance between protecting public health and allowing an owner of a single-family residence to use surface water. Several TAC members would allow use of a surface water system to serve an individual single-family residence provided that the system includes a process of initial filtration, disinfection, and final carbon particle filtration. The applicant would be required to acknowledge in the permit application that there is an elevated risk when using surface water and that maintenance and operation of the system is required and accepted. The permit would include clear language placing any future owner on notice of the operation and maintenance requirements.

Ernie asked if the TAC would support the bill and the response was not in the current form. The issues should be reviewed in depth and if approved should clearly state the requirements for system design and oversight.

Executive Committee: Steve Revell, Ernest Christianson, Roger Thompson
Alternates – Chris Thompson, Spencer Harris, Claude Chevalier, Craig Heindel

Subcommittees:

Hydrogeology

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

Bottomless Sand Filters

Peter Boemig, Mark Bannon, Cindy Parks, Mary Clark, Denise Johnson-Terk, Craig Heindel, Ernie Christianson

Seasonal High Water Table Monitoring

Craig Heindel, Steve Revell, Roger Thompson, Ernie Christianson, Bill Zabiloski, Dan Wilcox, Mary Clark

Well Driller's Reporting Form

Rodney Pingree, Craig Heindel, Claude Chevalier, Peter Boemig, Mary Clark, Ernie Christianson