

Approved Minutes of the Technical Advisory Committee Meeting
March 22, 2011

Attendees: Roger Thompson Steve Revell
 Gail Center Jeff Fehrs
 Craig Heindel Scott Stewart
 Kim Greenwood Ernest Christianson
 Bill Zabiloski Anne Whiteley
 Chris Thompson Phil Deckert
 Bruce Douglas Spencer Harris
 Rodney Pingree John Beauchamp

Scheduled meetings:

April 19, 2011 1-4 PM Lincoln Room, Osgood Building

Agenda:

The agenda was reviewed and Steve asked for a few minutes to talk about the Wetlands training and the new rules that have been adopted. Also added was a topic on groundwater under the public trust doctrine and the status of the UIC Rules in relation to geothermal wells. Kim asked that when discussing the operation of the TAC that interaction with the legislature be added to the agenda.

Minutes:

The minutes of the February 15, 2011 meeting were accepted.

Personnel:

Jeff Fehrs announced that he is leaving his current position dealing with Underground Injection Control Permits and other issues. Jeff is moving to the Discharge Section, still within the WWMD, that regulates direct discharges to surface waters, primarily wastewater treatment facilities.

S.77:

Ernie and Matt Chapman, ANR attorney, testified at the Senate Natural Resources Committee. They asked that the list of contaminants to be tested match the list used in the failed supply section of the Wastewater System and Potable Water Supply Rules (Rules). They also asked that this issue be referred to the TAC prior to passing any legislation. The Commissioner of the Vermont Department of Health (VDH) also testified and stated that the VDH lab could handle 1000 tests per year. It was not clear if this number represents a total number of tests that the lab could run in a year or an additional number

of tests that could be run. Realtors said there are about 8000 closings per year and if all systems need a test of all contaminants on the list prior to any property transfer there would be delay in closings. It was Ernie understanding that the committee asked Matt to redraft the bill in association with the Health Department. S.77 was amended to make the testing mandatory only for new wells and just a notice to potential buyers that they have a right to ask for a full test. Roger said it is important to talk with VDH and know for certain what capacity they actually have and suggested contacting the Water Supply Division well driller's records to see how many new wells are registered each year.

The group then discussed the list of contaminants currently included in S.77. Fluoride has now been added. Fluoride was added because it has been found as a naturally occurring contaminant in parts of Vermont including in Charlotte, Westminster, and Wilmington with a highest reading of 10 mg/l which greatly exceeds the Drinking Water Standard of 2 mg/l. Lead was also added to the list. This is not commonly found as a naturally occurring contaminant but there are still old water lines and plumbing fixtures that contain lead. Ernie said that one goal of S.77 is to create a database of groundwater quality and that his testimony was that the data base should be managed by the Water Supply Division. Ernie noted that at the end of his testimony he thought the issue would be referred to the TAC.

Craig noted that S.77 appeared on the Senate Calendar today. Kim agreed and said it might pass tomorrow. The current draft does not require a time of sale test but does require testing of new wells. Steve asked what will happen when a test is done and one or more contaminants exceed the Drinking Water Standards. Anne said that if ANR knows this, then it is a violation of the Rules and ANR could move to require correction of the problem. If ANR declares there is a violation there would be a cloud on the property title until the problem is fixed. Roger said there could be a lot of time of sale problems including a delay in getting tests done if there is a heavy demand and the legislature should be fully informed before they pass any legislation. Ernie said that in the previous week or so he thought the bill was not going to be passed this session but that he had been contacted by Chris Recchia (Deputy Secretary of ANR) and told that the bill was still under consideration.

Craig suggested forming a subcommittee to prepare information to submit to the legislature identifying the problems and recommending a referral to the TAC. Anne, Ernie, Roger, John, Gail, and Chris will meet. Ernie will make the arrangements for the meeting.

Roger then asked Ernie about how the process might work under the Rules and specifically about how ANR would oversee this. Ernie said that if S.77 passed as is, it would be the landowner's responsibility to comply. Roger asked if this would be part of the permitting process and subject to a permit condition. Ernie said he was not proposing to include a permit condition. Craig said that if the legislature requires testing it would seem that ANR would need to add a permit condition and take compliance action as needed. Anne said there would need to be a permit condition.

Steve, Kim, and Roger said the bill should specify when the sample should be collected. John said that the time of sampling is important because in some cases it takes the equivalent of three months of usage before the sediment is removed, any contamination related to the drilling is removed, and the flow through the surrounding bedrock and/or soil produces relatively consistent results for the chemical testing. In terms of value of the testing for determining the need for and the design of water treatment systems, a test conducted soon after first drilling the well may give misleading results. Even after 3 months of usage, John noted, the results for some wells change over time with levels of contaminants increasing or decreasing in unpredictable ways.

Ernie said that the main goal of the bill is to develop a groundwater quality data base. Therefore, testing done soon after drilling the well might be adequate for defining the water quality in a particular area, even if it was not ideal for designing a water treatment system.

The TAC thinks that the issue should be referred to the TAC prior to passing a bill. Ernie said that Matt Chapman had drafted language to amend the bill to send it to TAC but it was not the version Senate Natural Resources Committee voted on. The TAC thinks a request from the TAC to send the issue to the TAC should be given to the legislature. Anne suggested using the small group approach Craig suggested. It was decided that Gail, Chris, Anne, Ernie, John, and Roger would meet on Friday, March 24th, at 9 AM to start a draft letter that would be sent by the TAC Executive Committee.

Gail said there would be a data base created for tracking groundwater quality. Ernie noted that he had told the legislature that funds to create this project would be needed. Roger said that in order for there to be a good data-base, a GPS reading would be needed for each sample point. This reading is currently taken for drilled wells, which covers most new wells, but it would have to be transferred to the new data-base.

H.271 -

Roger said that when he first saw this on the legislative website he was surprised to see a proposal that would have permits for drilling new wells expire after 3 years. Steve said he was frustrated that TAC created a really good report on Act 145, and the changes that should be made, and the legislature ignored important recommendations in the report. Anne noted that when she and Ernie testified to the House Fish, Wildlife, and Water Resources Committee that one committee member asked about expiration dates and that she had pointed out several problems with expiration dates that seemed to outweigh any gains. Most members of the TAC do not support expiration dates. The rest of H.271 tries to deal with the one well per lot issue. Anne mentioned that under the current Rules new projects are not approved with more than one well unless needed to support the project. Anne said she told Rep. David Deen that the one well per lot might not be a workable idea. Anne did go on to talk with Rep. Deen about changes to Act 145 that would make it easier to administer. The TAC reviewed draft language. Anne pointed out that it reduces the amount of paperwork that must be sent to neighbors and moves the notice period to before the application is filed. If the plans are altered after the application is

filed, there will still be a notice to the neighbors with a 7 day waiting period after sending the notice to the neighbors before a permit can be issued.

Act 145 is continuing to be an issue with landowners. Anne has 4 new permit appeals, which is an unusually large number, at least one of which is a pure overshadowing appeal. Anne said there was testimony at F+W that Act 145 is not generally making people happier, instead there is more conflict. Kim noted that the only thing that had changed on the ground was that people are now aware of how they may be affecting a neighbor or how they may be affected by a proposed permit. Phil said that people have approached him about overshadowing issues. One person was sent a plan that showed the potential overshadowing zone based on both a drilled bedrock well and for a shallow well. The first had a 200' isolation zone and the second was 500'. After looking into it, it was clear the permit application was based on a bedrock well and only the 200' distance was applicable and it only extended onto the neighbors land a short distance which Phil said would have only a small impact. Phil asked if the neighbor's ability to install a shallow well is protected and Anne replied that the overshadowing notice is based on the neighbor installing a bedrock well. Any existing shallow wells are protected by the permit as a permit cannot be issued if the 500' isolation zone is not met unless a hydrogeologic analysis supports a reduction in isolation distance to less than 500'.

Bill said that the existing language in the guidance for drawing isolation zones around leachfields is not clear and that under strict application a larger isolation zone would be created than is necessary. Anne said she knows this language needs to be updated and encouraged Bill to make a start on drafting proposed changes. Spencer said that his default approach is to make the isolation zone larger because it was less of a problem than if he ended up with a zone that was too small and that a detailed analysis to reduce the size added cost to the design.

Ernie asked if the new language to amend Act 145 would be specific as to what must be sent to the neighbors. Anne said that F+W had looked at her new language and liked it, however H.271 did not make crossover. Therefore, it will wait until next year unless they find some other bill to attach it to, such as S.77.

Anne said that one member of the F+W Committee felt that TAC had prejudged the issue of reducing isolation distances based on reading the TAC minutes. Ernie said he had met with this member and explained that the current Rules allow for case specific reductions in isolation distance based on a hydrogeologic evaluation. If this continues to be a problem it may be worth having a couple of TAC members make a contact and explain that the TAC did a thorough review. It did not require a lot of time as much of the material had been extensively reviewed in the past couple of years and therefore only new information in recent years needed to be reviewed. Ernie said he also lobbied the member to send the one well per lot concept back to the TAC.

A sense of the TAC was taken and there is strong support for Anne's 3/15/2011 language and strong opposition to adding expiration dates to permits for new wells.

Groundwater and Public Trust Issues -

Anne gave a quick overview starting with a court decision involving a permit issued to the OMYA Corporation that requires a public interest determination that OMYA's impact on groundwater is in the public interest. Anne said there is a petition for an interlocutory appeal to the Vermont Supreme Court from ANR. ANR's position is that the original decision applied the public trust test used for surface water which is not an appropriate basis for decisions related to groundwater. One main requirement under the surface water test is that there is a public benefit in approving a proposed use. An example might be that when constructing a marina that will create a profit for an individual, there may be a public benefit if the marina creates boat launching and holding tank pump-out facilities that benefit other lake users. Kim says there are different opinions about what the OMYA decision actually means. Anne said that ANR is challenging the application of the specific test that the court said was to be used to determine compliance with the public trust but that ANR is not challenging that a public trust analysis should be done. This specific test she is referring to was about the impact of alterations at a marina on the use of Lake Champlain. The Agency has also formed a working group to consider how the public trust issues affect each of the Department of Environmental Conservation programs related to groundwater.

Geothermal Wells -

Craig attended the Vermont Groundwater Association Annual Meeting on March 11 where Jeff gave a presentation on UIC Rules and geothermal wells. Craig said that the Underground Injection Control (UIC) Rules appear to require a permit for a geothermal well. Jeff said this is true if there is any discharge of water back into the ground. A closed loop system would not need a permit but a standing column or recharge well does need a permit under the UIC Rules. Craig and others noted that there are hundreds of geothermal wells already constructed with many more added each year and it is a concern that all of these might be in violation of the UIC Rules. The Agency would like to amend the UIC Rules so that most geothermal wells qualify for a conditional exemption. A few very large capacity wells might still require a permit but this would be worked out during the rule revision process. A subcommittee was formed to work on this issue with Craig, Steve, Jeff, Scott, Rodney, Kim and Ernie as members.

TAC Operation -

Chris said that she had asked for this issue to be on the agenda to see if any changes are needed in how the committee works. Chris said that the TAC has its own status under statute and while there is administrative support from ANR TAC operates independently of the Agency. She asked if the committee wanted to appoint a chair. There was a TAC Chair when the committee was first appointed but the position has been vacant for a few years. Kim said that her concern is not being sure of the proper contact person when she suggests that a legislative committee contact the TAC. She also said there has been an

issue relative to ANR's lack of presence at the statehouse in the past couple of years. Last year's Act 145 is one example.

Christine asked if the Committee wanted to appoint a chair and maybe a vice-chair. After much discussion the group decided to rely on the executive committee and to continue operating as it has been. Roger agreed to continue doing the meeting minutes and to facilitate the meetings. The Committee decided to add Roger to the executive committee.

Wetlands Training –

Steve said that he recently attended some wetlands training and it seemed that the wetlands program had changed their thinking about when a replacement leachfield can be allowed as opposed to requiring a holding tank. Julie Foley (Wetlands Program Staff Member) used an ortho-photo that displayed the boundaries of a Class Two wetland and a "best fix" variance replacement leachfield. Julie said that a person must demonstrate that there is no undue adverse impact. This would involve a public process that requires at least 60 days. Ernie said there is going to be a meeting with the wetlands program staff to learn exactly how the process works. There have not been any recent changes in the wetlands rules related to leachfields so the issue may be more in the presentation than in the actual operation of the wetland decisions.

Spencer said that he had a recent situation where Alan Quackenbush was able to sign off on wetlands issues based on a sketch of the proposed replacement system and an ortho-photo. Spencer did say that the new hydric soil maps are creating concerns.

One person said that there is a rumor that wetlands can only be delineated in the spring. This is more likely a case of saying that accurate delineations cannot be done in the winter when there is snow on the ground. Ernie will check into this. Gail asked if doing a replacement leachfield will require two permits. The answer is yes, one WW Permit and one Wetland Permit.

Items prioritized for discussion with high, low, and medium ranking

1. Soil identification vs. perc test **medium**
2. Curtain drain with presumption of effectiveness **high**
3. Revisions to desktop hydro chart **medium**
4. Minimum amount of sand under a mound **high**
5. Grandfathered design flow and conversion of use policy **high**
6. Updating of design flow chart **high**
7. Water Supply Rule update **high**
8. Seasonal High Water Table determination for performance based systems **high**

Executive Committee

Steve Revell, Ernest Christianson, Bruce Douglas, Roger Thompson

Alternates – Chris Thompson, Spencer Harris, Claude Chevalier, Craig Heindel

Subcommittees

Hydrogeology - Craig Heindel, Dave Cotton and Steve Revell.

S.77 Issues – Anne Whiteley, Ernie Christianson, Roger Thompson, John Beauchamp,
Gail Center, Chris Thompson

UIC Rules and Geothermal Wells - Craig Heindel, Steve Revell, Roger Thompson, Ernie
Christianson, Scott Stewart, Rodney Pingree, Kim Greenwood

SHWT Monitoring - Craig Heindel, Steve Revell, Roger Thompson, Ernie Christianson,
Bill Zabiloski, Dan Wilcox

UIC Rules and Disposal of Wastewater from Water Treatment Systems –
John Beauchamp, Gary Adams, Roger Thompson, Ernie Christianson,
Gail Center, Jeff Fehrs