

Approved Minutes of the Technical Advisory Committee Meeting  
February 15, 2011

**Attendees:** Roger Thompson                      Gail Center  
Denise Johnson-Terk                      Gary Adams  
Ernest Christianson                      Kim Greenwood  
Scott Stewart                      Rodney Pingree  
Craig Heindel                      Jeff Fehrs  
Spencer Harris                      Don Woods  
Steve Revell                      John Beauchamp

**Scheduled meetings:**

March 22, 2011              1-4 PM              Appalachian Gap Room, Osgood Building  
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.

**Minutes:**

The minutes were accepted with a spelling correction.

**Review of Presentation to the House Committee on Fish, Wildlife, and Water Resources Regarding the “Overshadowing Report”**

Ernie Christianson, Bruce Douglas, Claude Chevalier, and Anne Whiteley gave testimony. Roger Thompson also attended. Ernie reviewed the meeting which seemed to go quite well with support for the TAC report and the TAC recommendations in the report. Most members of the Legislative Committee seemed to support retaining the first in time approach though a couple of members said it was hard for them to accept that someone could develop their land in a way that would restrict what a neighbor might be able to do. This was discussed by the Legislative Committee but the TAC report analysis of the pro’s and con’s of the first in time approach seemed to result in the Legislative Committee reaching the TAC’s conclusion that any change would create more problems than retaining the existing status. Rep. McCullough asked about having a longer time period between the notification of an “overshadowing” and issuing of a permit, maybe as much as 30 days. Ernie said that he asked that any increase in time over the existing 7 day notice period be required to be prior to filing an application. Otherwise, it would greatly affect Agency operations which in recent years have achieved a fast turn around on the majority of applications.

Ernie noted that Anne had pointed out a few areas that might be clarified in the statute. One would be a change such that only a site plan showing the overshadowing is sent to the neighbor instead of a full set of plans with detail sheets. Another might be to indicate that the legislative intent was that the notification would be related to a potential impact for a single family residence with a bedrock well. Anne will be working with Legislative Council to draft possible changes to the statute, including a specific notification statement that would be used for all projects.

Gail asked about the Legislative Committee's reaction to the TAC recommendation to maintain the existing isolation distances. Ernie reported that the Legislative Committee heard testimony from Claude Chevalier who reviewed his long experience of well drilling in Vermont. Claude said that his company had installed many wells that have significantly smaller isolation distances than those required in the current rules for new projects and was unaware of any contamination problems. Bruce Douglas reviewed the TAC Report and stated that the existing isolation distances are scientifically based. Bruce noted that a nitrate contamination study done in Vermont in the 1980's actually found some drilled wells with nitrate contamination believed to come from nearby wastewater disposal systems. This demonstrates that at least some bedrock wells are subject to contamination. One member of the Legislative Committee noted that his father, a licensed plumber, had always said that protecting the groundwater was the most important thing he could do. Ernie said that his impression was that the Legislative Committee was not in favor of reducing the existing prescriptive isolation distances. Ernie said that Anne and Bruce noted that under the existing rules there is a process to reduce isolation distances on a case by case basis using a hydrogeologic analysis.

The TAC recommendation of protecting only one well per lot was discussed. Ernie commented that there will be several issues to deal with as many existing projects have more than one well and getting someone to decide which one will be protected will be difficult. In some cases the second well was not legally permitted at the time of installation but with the "clean slate" exemption taking effect on January 1, 2007 many of these wells are now considered to be legal and would need to be protected. Roger noted that the Legislative Committee did appear to support the concept of protecting only one well per project. This would need to be worked out in any proposed statutory changes.

Ernie noted that the Legislative Committee does not want to deal with spite wells because of the difficulty of determining the intent of the person proposing to install the well. Steve agreed this is true and reviewed a situation he dealt with where the neighbor placed a piece of well casing, with a cap and electrical conduit, in the ground in a location that would prevent the neighbor from developing. It turns out that the casing only extends 26" below grade and it is not a well at all. Steve asked about how anyone can deal with this as it would be a trespass to go on the neighbor's land to examine the well. The group discussed this and noted that the well needs to be registered with the state if drilled in the past 30 or so years and needs a well tag if drilled in more recent years. Neither was done in this case. One suggestion was that the Water Supply Division be contacted. They might be able to investigate why the well is not registered. It was agreed that it is difficult to deal with a situation when a landowner just refuses to cooperate.

Spencer asked if there was any discussion by the Legislative Committee of the cost of complying with the overshadowing notification requirements or the impact of designing systems on soils that require most expensive wastewater disposal systems. Ernie said there was and there was agreement to modify the notification requirements related to sending unnecessary plans and supporting documents to the neighbor. With the sense that the first-in-time concept would be retained, any decision to relocate the wastewater system to poorer soils was not a requirement under the statute and it was up to the developer to decide how much to accommodate a neighbor's concerns.

John asked about wells that were drilled before tags were required. Craig noted that since some time in the 1980's the wells needed to be reported to the state but that the information on the actual location of the well might not be too reliable. John asked about the requirements if someone wants to add a second well when the first well does not have sufficient water. Ernie said that a state permit is needed if they will keep both wells. The replacement well exemption might apply if the old well was abandoned, at least as a drinking water source.

Denise reviewed an ongoing situation in Colchester. She noted that Colchester is not required to honor the "clean slate" exemption because the program was delegated to the Town of Colchester prior to the enactment of the exemption. There is one proposal ongoing to abandon an existing drilled well and to relocate it to a location which would have significant negative impacts on a neighboring lot. An application to relocate a wastewater force-main is pending which may or may not create a first in time situation. This appears to be a case that should be discussed with the town's attorney.

Steve asked if the Legislative Committee indicated that they may have moved too quickly last year in passing Act 145. Ernie said there was no discussion about it. Kim said that the Legislative Committee did not think they were creating something big and new, rather it was intended to be a "little fix."

Rodney asked if the proposed notification statement would include language recommending consultation between the applicant and those receiving the notification.

### **Disposal of Filter Backwash from Water Treatment Systems into Soil-based Disposal Systems**

Ernie gave a quick review of the guidance document that was issued January 29, 2011 by Christine Thompson. This guidance deals with the acceptable discharges of filter backwash that were approved in Act 145 of last year's session. Ernie said that the guidance did not create any new methods for disposal. Spencer asked why the guidance was created and Ernie said that the regional office staff asked for something in writing for their use and to provide to applicants and designers. The guidance allows for discharge of the filter backwash from treatment systems dealing with a specific list of contaminants and allows for the waste to be discharged to existing wastewater disposal systems without obtaining a permit.

Gail said that the Health Department has been asked for years about where to dispose of the backwash and in the past did not recommend construction of a separate drywell because the drywell construction and location were not regulated. A drywell located near the water supply could contaminate the water supply.

Spencer asked Gary and John what they specified as disposal points for the water treatment systems they design. Gary and John said they do not have a clear answer to give people. John said that NOWRA (National Onsite Wastewater Recycling Association) is working on the topic and will issue a recommendation. John says he finds systems that are discharged to floor drains and foundation drains. John said he is particularly concerned about systems that remove radionuclides such as radium and uranium. Gail said that in some cases arsenic that is removed as part of iron removal can remobilize when the chemistry changes.

Craig asked if, considering that there are treatment systems that retain arsenic and radionuclides, there should be a requirement that retention type systems be required with the disposal being handled by companies that would replace the spent filter cartridges and safely dispose of them.

Gail said that Senator Lyons is sponsoring a new bill that would require more water systems to be routinely monitored. As more testing is done, and more problems found, it is likely more treatment systems will be installed. This might support companies that would pick up and dispose of certain types of filters.

Gary said that he has never seen any ill effects on wastewater disposal systems caused by adding the filter backwash to the existing systems. He has seen wells that were contaminated when the filter backwash was discharged near the well head. John said there is also some information indicating that more contaminants may be retained in a septic tank than would be retained in a stand alone drywell system which would better protect groundwater.

### **Conditional Exemption for Disposal of Filter Backwash into Underground Injection Wells (I.E. not Septic Systems)**

Copies of the e-mail Ernie circulated a couple of weeks ago were distributed as a starting point for a discussion. The e-mail listed 9 areas of questions related to volume of waste that might be exempt and various siting conditions such as distance to wells and amount of soil under the system. John and Gary discussed flow volumes from typical home water treatment systems. While the volume varies quite a bit from house to house, and most systems do not backwash every day, they agreed that an exemption that allows for an average daily flow of 50 gallons (350 gallons per week) would cover the majority of home systems.

It was decided that it would be beneficial to have a subcommittee work on this issue. Gary, Jeff, John, Ernie, and Roger will participate. Roger will arrange for the meetings.

## **Water Supply Rules**

Scott is looking for help on redrafting section 11.8 which deals with pumping, storage, and distribution issues. It was decided to form a subcommittee. Don and Ernie will participate. Ernie will look into having David Swift and/or Dolores Kuhn (regional office staff) participate. Ernie will also contact Eric Blatt and see if Greg Bostock or David Webb (Water Supply Division staff) should be involved. Ernie will arrange the meetings.

## **Groundwater Monitoring for Performance Based Designs**

The existing rules do not give a clear statement of how the monitoring results are to be used in calculating the seasonal high water table. This issue was reviewed a couple of years ago by TAC but without any clear resolution. It was decided that a subcommittee of Steve, Craig, Bruce Douglas, Kim, Roger, Bill Zabiloski, and Ernie would work on this. Ernie will contact Dan Wilcox (regional office staff) and may ask Dan to participate. Ernie will arrange the meetings.

## **Wetlands Training Sessions**

Steve reported that he had attended a recent session and learned about one troubling issue. Under the recently revised wetlands rules, there is now a standard related to replacement of existing wastewater disposal systems. Under the previous rules, as long as there was agreement by the wetlands staff that the proposed replacement wastewater system was located in the best available location it would be acceptable. The new requirement requires a determination that there will not be an undue adverse impact from the replacement system. While it is not clear how this will work when implemented, Steve is concerned that it might end up requiring applicants to abandon onsite wastewater disposal systems and force them to use a holding tank system. A holding tank system for a single family residence can be a very expensive system. Apparently this was not considered during the development of the new wetland rules.

## **Issues for Future Discussion**

Craig asked that the Water Supply Rules and the Seasonal High Water Table determination be added to the list as high priorities which was agreed to.

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

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

#### **Subcommittees**

Hydrogeology - Craig Heindel, Dave Cotton and Steve Revell.