Groundwater Coordinating Committee Meeting Minutes

**Date**: 9/19/2018

**Location**: Annex, Montpelier

**Attendees**:

Scott Stewart, Kasey Kathan, Craig Heindel, Graham Bradley, Miles Waite, Ken White, Mary Clark, Rodney Pingree, Marjorie Gale, Michele Eisenstein, Michael Smith, Colin Dowey, Sille Larson, John Armstrong, Craig DiGiammarino, Patti Casey, Mike Nahmias, Kira Jacobs (call in)

**Minutes**:

**Introductions:**

Mary Clark started off with announcing that Allison Lowry (currently of the Direct Discharge Program) will be the new UIC coordinator.

We also welcomed Ken White, Valley Artesian and all the well drillers as new members! The Water Well Advisory Committee has been merged with this committee per Governor Scott (H.61). We welcome their input and the expertise they bring to all the groundwater issues we have to discuss and any topics they have to offer.

**Drought Task Force:**

Marjie and Rodney said the task force has been active and meeting at Public Safety in Waterbury. There are abnormally dry to severe conditions in North Central Vermont. Many public systems are encouraging water conservation, some systems with springs are posting signs. Water Resources Section has called a number of public systems but while water levels are low they aren’t experiencing shortages or outages. Unfortunately, non-public homes are having problems, particularly the shallower wells and springs. Claude Chevalier had 10 calls on Monday alone. Ken had 4 in the WRJ area.

Sille – fielded a call from Senator Sanders’ office about wells running dry, question from user on what options are available:

1. There is an On-Site Loan Program available for wells and septic replacement. Chris Rotler is the contact at 802-461-6051 or visit <http://dec.vermont.gov/facilities-engineering/water-financing/on-site-loan>. This program, also known as the On-site Loan Program, is available to certain Vermont residents for the repair or replacement of failed water supply and on-site wastewater systems. The On-site Loan Program is funded and administered by the Agency of Natural Resources, Department of Environmental Conservation with loan underwriting and servicing provided by the Opportunities Credit Union in Winooski. Your drinking water supply has to be a failed system and you must be living in the residence on a year-round basis to be eligible. The family income cannot exceed 200% of the state median household income.
2. The NeighborWorks Alliance is made up of five local organizations offering full affordable housing services for income-eligible individuals. You may qualify for help from this program if you need money to install a water treatment system, drill a well, or repair or replace your septic system. For more information on eligibility, contact the local NeighborWorks HomeOwnership Center <http://www.vthomeownership.org/> in your region.
3. Single Family Housing Repair Loans and Grants

This program offers loans and grants to exiting homeowners for well construction, repair and sealing. It's administered by the Rural Development office of the U.S. Department of Agriculture. The program is for low-income families who live in a rural area or a community with a population of 25,000 or less. The family income cannot exceed 50% of the median county income. Individuals who are 62 years of age or older may qualify for a grant or a combination of a loan and grant. Younger applicants are eligible only for loans.

Burlington, South Burlington, Essex Junction, Winooski and parts of Colchester are ineligible for the program because of population. Even if your property is in an eligible area, your eligibility is still subject to income limits. For more information or to find out if your property is in an eligible area, call 802-828-6022 or visit the website (<https://www.rd.usda.gov/programs-services/single-family-housing-repair-loans-grants>).

The Vermont Geological Society has a drought report form on their webpage if someone wants to report drought issues in their area. <https://anrmaps.vermont.gov/websites/droughtreporter/>

Kira mentioned presentations offered by EPA, VRWA and DEC in 2017 for planners, conservation groups and town officials discussing water quality and quantity. The presentations are online at the link below:

http://dec.vermont.gov/geological-survey/groundwater/2017conference

Ken shared how wells impacted with by drought or collapse are evaluated. For wells less than 20 feet deep an excavator can be used (not required to be a licensed driller). For wells more than 20 feet deep, hydrofracturing is an option.

Note: For public systems, deepening or hydrofracturing requires a permit from Drinking Water and Groundwater Protection Division.

Hydrofracturing came from the oil and gas industry but only uses water under high pressure. Ken does a down hole camera survey looking for voids, then lowers a packer (a rubber gasket or seal) about 40 feet below the bottom of the casing and inflates it with water, then water is injected below or between two packers (zone hydrofracturing) around 3000 psi to open new or expand existing fractures in the rock. This can increase yields from a few to tens of gallons per minute. Due to the pressures used, the drillers look for impact to nearby wells within 100 feet from interconnecting fractures.

The methodology of fracking of wells is not regulated in Vermont. The drillers follow procedures developed at the national level and are licensed under the Well Driller Licensing Rule. The volume of water is small, so a limited area is affected. Should we look at what other states are doing?

Is acid washing used? It is not widely used in VT due to geology.

Kira – if we are reaching out to other states, she may be able to serve as resource, NEIWPIC or NGWA. Ken is the president of the Vermont Groundwater Association.

Sille- How is info distributed to well drillers? Ken through VGA sends Quarterly meetings and newsletters if something is of particular interest. Sille might be interested in using the group to distribute info on the private well task force. She might have something put together to get feedback on by the October GWCC mtg. Scott sent an update letter to the drillers in August and is working on a Well Drilling Advisory to go out soon about drilling in the Bennington area due to PFAS contamination and possible groundwater reclassification efforts.

**Act 161 requirements**

This legislation requires water quality sampling of new supplies for single family homes (not at property transfer). The requirement to sample is on the homeowner. The water quality results go to the VT Department of Health. VDH has a private well task force starting before July 1 sampling requirement goes into effect. From the draft Potable Water and Wastewater Rules:

“When a permit authorizes the construction of a groundwater potable water source, the physical modification of an existing groundwater potable water source, or an action that

increases the design flow of, or modifies other operational requirements of, a

groundwater potable water source, the potable water source shall be sampled for the

following substances, and any water treatment system required pursuant to Subsection (d)

installed, prior to any water use authorized in the permit:

(1) each primary and secondary contaminant listed in Tables 11-5 and 11-6; and

(2) any substance with a groundwater enforcement standard in the Groundwater

Protection Rule and Strategy that the Secretary determines may be present in the

source. “

Table 11-5 includes: Arsenic, E. coli, fluoride, lead, manganese, nitrate/nitrite, Total Coliform, uranium and gross alpha; Table 11-6 includes: chloride, sodium, iron, odor and pH

So new wells will be tested for both primary and secondary contaminants.

Sampling for Potable sources don’t require VOCs – VDH not confident that there is enough need to require it, may need to use grant money to explore occurrence to see if needed. The cost to homeowners may be significant (~ $125).

Sampling of Public supplies often shows low levels of toluene due to drillers tape on electrical lines in the well but can be removed with flushing and/or well development.

MTBE is ubiquitous and can be airborne but not found in Public supply sampling unless as part of a release or plume. It could be a problem, but since sampling isn’t being done, we don’t know. VDH may be able to spend some money looking in to this.

Ken – the law also allows areas to be designated certain areas of concern where additional testing can be required (Bennington for PFAS, etc.)

Miles – on the Potable WW application, there is a check box if a proposed source is within one mile of hazardous waste site – do the Regional Engineers ever kick it back requiring testing based on proximity to a hazardous site? Yes, Ernie confirms that Regional Engineers work with Waste Management staff and may require water quality testing for wells if there is concern.

**Updates:**

Scott – working with Matt Moran and GIS staff an atlas feature for use with the potable and public permit applications. Even though the question is asked about proposed source locations and proximity to contaminant threats or sensitive receptors (wetlands), there are insufficient checks in place to determine the accuracy of that checking. We are developing a GIS tool with pre-populated layering within the ANR atlas to the location of the hazardous waste sites and other resources.

We continue to make progress on improving the private well drillers database. A Well improvement survey is now available through the atlas, to allow the public or professionals to provide info and/or locations of untagged wells or updates to known-tagged wells. This feature is on the ANR Atlas now.

Mary C – may be worth adding some information to Ernie’s well replacement form with the well testing recommendations.

Colin’s work on improving water well locations – going through 4 counties this year LA, WA, OG CA, getting up to 50% correction rate! The accuracy designation is also being updated by Colin.

Bennington case – often there is data gathered in the field, but it needs to be provided to Ken Yelsey to update the well report database. This has been done by providing access to Geology to update the database.

**Agency of Transportation**

Craig and Jon gave an overview: Craig heads up the Maintenance and Operations Bureau’s environmental program and Jon is the Stormwater Management Engineer within the Agency’s Project Delivery Bureau’s Environmental Section (Design & permitting) – all projects come to the PDB Env section for concept phase/resource identification (bridge, paving, airports etc.), starts as location and project type (program) alone.  Jon is directly involved with most projects, particularly those that trigger Stormwater permits.  Scoping reports are often developed for with alternatives and look at tactical basin plans, waste sites, wells, SPAs wetland, historic sites, etc. (even if no scoping report done).  Utilize atlas, assess whether there is potential impact, including whether there’s a need for a stormwater permit.

Was there a significant shift with the 2017 update to the stormwater manual?  There were some increases in isolation distances, depth to seasonal high-water table, SPAs. New 2017 manual – requires infiltration where practicable unless it’s a hot spot, seemingly good step forward from the previous manual.    Where infiltration is proposed often will take borings, infiltration testing per 2017 SW Manual, occasionally do test pits, look at nearby septic system, blasting impact to neighbors, etc.

Jessy Ives (Construction section) conducts pre and post-construction well testing where private wells (often picked up by surveyors) have potential to be impacted by vibrations or blasting (this used to be done by Nik Garbacik).

- when private wells are identified (sometimes by the surveyors), will evaluate further, including some testing, if needed to identify any obvious pre-construction concerns.

Digression - With the proposed removal of the secondaries from the GWPRS – how will that impact AOT well replacement?

Scott - just because there won’t be a standard within the GWPRS – the EPA standard for sodium and chloride are still valid and can be referenced. AOT isn’t tied to the GWPRS which is only for 11 DEC rules for permitted activities. The decision to propose removal of the secondary GW standards is due to difficulty in enforcement (pH, odor, iron, etc.) and they are not health based – no health impact.

AOT concern with GWPRS - will the filing documentation be beefed up to reflect economic impact and program impact?

Watershed Management – Stormwater program concern - Would permit determination section in proposed GWPRS apply to new, expansion, renewals for stormwater – proposal is for new and expansion only. Working on revising language in draft before going back to ICAR.

AOT - Development soil considerations, no intentions of prohibiting infiltration systems in development soil areas (urban fill) – some designers are concerned with liability – risk is dermal exposure not necessarily GW contamination.

Miles – could be good to have a guidance/policy that made it less restrictive or concerning to infiltrate through development soils, when impact area is served by municipal water.

May be worth of having a longer term, high level policy decision on whether it is appropriate to treat groundwater as drinking water – would require amending statute and discussions with VDH.

SPLP – soil leaching. It would be useful to keep track of the data somewhere so that they could systematically be evaluated down the road to evaluate whether or not continued testing is needed.

**Michael Smith – PFAS update**

May be some need for a shallow background urban study – it’s being detected in upgradient locations, difficult to distinguish from impacted areas.

Working with national work group on AFFF (fire-fighting foam) collection program, pre-2003 – not looking to recommend replacements - PFHxS is present in current formulations

Interstate Technology Regulatory Council (ITRC) has put out six fact sheets and working on larger technical document and web-based training.

<https://www.itrcweb.org/guidance>

Schools appear to have PFAS from floor de-waxing products.

Mike N. – still finding more contaminated wells in clarendon – airport and 4 springs above standard. Testing pumper truck that used foam.

Rutland Airport Business Park impacted. Have we looked at all airports in the state? Not systematically.

**Other Updates**

Kasey - Closed landfills – request of all, about half back, about half of those have detections, but so far only one POET required – Shaftsbury.

Mary C. – Indirect UIC rules to be revised next year.

Sille – water quality database up and running, receiving results since February with Endyne.

Primarily the shallow aquifer funding – potentially could help out with background PFAS work potential?

Scott - GWPRS – pulled from ICAR so we could sort out issues with presumption of compliance language and revisions to Appendix One table of enforcement standards with VDH and AAFM.

Additional work needed on the appendix table –

To get on the October agenda it would require filing this Friday, so will file in October to get on November agenda, then 2 public meetings, likely Montpelier and Rutland - 30 day public comment period, so looking at December for public Meetings.

Next Meeting: October 25th, 1pm at the ANR Annex