



Groundwater Protection and Water Wells Workgroup Meeting

Wednesday November 20, 2013

Hosted by the DEC

1st floor conference room 555 Cordova St. Anchorage with teleconference

Attendees in Anchorage: Fred Sorensen (UAF), Charley Palmer (DEC), Kathleen Kastens (Private Well Owner/Facilitator), Wayne Westberg (WWC), Chris Miller (DEC), Rebecca Baril (DEC), David Schade (DNR), Bill Kranich (PE / PWS Owner – Southcentral)

Attendees via teleconference line: Pamela Goode (Private Citizen), James Squyres (Private Citizen) Michael Smith (Senator Bishop's office), John Craven (Public Water System owner), Jim Munter (Hydrogeologist/Consultant), Dan Brotherton (WWC), Lee Ice (WWC), Dan Brotherton (WWC), Chuck Ice (WWC), Roy Robertson (DEC), Milo Pitner (WWC), Craig Seime (WWC), Dave Bay (WWC).

Meeting Minutes

Facilitator: Kathy Kastens (DEC)

Introduction

- Review of agenda
- Review of minutes
 - Wayne asked about the well logs discussion from the minutes. We state that the well logs discussion would be tabled. He asked whether the discussion would be presented at this meeting.
 - Kathy clarified that the intention was that the discussion would be tabled until there was more news or updates. Such as, DNR reviewing and making regulations updates. The discussion may arise in further discussions of standards etc.
 - All agreed with minutes plus the additional description of minutes being tabled.
- Action Items
 - Draft Website, Chapter 15 standards, and master list of contact information of the group were all sent out before this meeting.
 - The website draft (in two versions) and the contact information were sent together on October 17th. The standards were sent out November 5th.
 - Charley contacted the MOA assessor and planning departments, but they were unaware of any documents for water well guidance.

- Wayne mentioned that they have a handout at their office.
- Charley and Wayne will collaborate for one of them to head down the office to find out more information.
- Website discussion
 - The group was asked whether anyone had any issues with including logos on the website.
 - Fred: For the cooperative extension, it's required to have someone monitoring the webpage so that it stays accurate and up-to-date.
 - Lee added that he hasn't had an opportunity to talk to the board or members, but he will pursue.
 - Kathy: Until we are certain on some logos, we will wait on posting them on the site.
 - Lee asked when the website would be going live to the public.
 - Chris responded that we currently have a test website but are unsure when it will go live. The DEC may send a link for workgroup members to access and review before it goes public.
 - James asked how long the WELTS link has been public and whether this is the database of all submitted logs.
 - Chris responded that yes, this site has been public for a while, and yes, it is the database of all submitted well logs.
 - Wayne added that there is also a USGS site with well logs, but it is old and outdated, and no longer maintained.
- National Ground Water Association (NGWA) Fact sheets
 - Chris contacted NGWA and was given permission to make modifications. They have a lot of factsheets that are very generic, but we have been given permission to "Alaskanize" them for our purposes. Currently, Chris has them in digital form, but will make up some drafts and them to the group for review.
- Wayne – Well Decommissioning Standards
 - Kathy: To be discussed in "current issues" later in the meeting.

Issues and Concerns

- Miscellaneous – Website Mock-up
 - Chris: We tried to duplicate the formatting, but not everything was possible to duplicate due to standards imposed on State websites. We have links that direct to different sections on the webpage. We have fact sheets on every other kind of contaminant except for bacteria. If anyone has, or knows of, a good factsheet on bacteria, please let us know.
 - Jim asked whether we have links to the actual regulations, as they are usually difficult to find when researching water rights and well logs, for example.
 - Rebecca responded that currently there aren't links to all the regulations, but it is on the list of edits to be made.
 - Fred asked how the link would be publicized and made available.

- Chris responded that it will most likely be nested within the drinking water program page under “quick links”.
- Charley added that if workgroup members could include it as a link on their page, it would help get the word out to the public.
- Wayne asked whether the “Drinking Water Program” heading had to stay there
 - Kathy responded that that heading is uneditable as it is part of the website standards imposed by the state.
 - Wayne suggested that we should add “wells” into the title for the public.
 - David added that we should keep “system” in there too since there are systems that will be referencing the page.
 - There was a general consensus to edit the title in order for a more searchable title.
- Chris added that we will make some changes to the test site then send a private link for everyone to review. After the comment period, we will go public.
- Well logs
 - From previous discussion Kathy moved on to the next subject.
 - David added that the Governor just signed an executive order to go to the public to get comments on regulations. He believes it’s a great idea to get the public’s input, but notes that it will add another step to making the changes.
 - Kathy requested that David inform Rebecca of when public comments will be accepted.
- Standards
 - Lee commented that the standards Wayne had compiled looked good to him.
 - David asked how these standards would impact the already existent verbiage in DEC regulations about well decommissioning
 - Kathy responded that the current idea is that the standards the group is putting together will essentially replace the current standards.
 - Wayne asked the group if there was any impacts on the inclusion of the bentonite slurry in the standards, as he is aware most do not like. He added that he included it because it is a point that engineers tend to jump on.
 - Kathy added to that the engineering will most likely recommend in the standards the ability to institute a plan review process.
 - Wayne agreed that it isn’t arbitrary and that plans should still be reviewed and discussed. He also noted that he added on the artesian wells edits. (Displayed on the monitor, as these have not been sent out as of the meeting.)
 - Jim asked about the use of concrete for filling.
 - Wayne responded that they prefer to stay away from concrete. He added that it is not a good Alaskan solution, as within permafrost it only aids in increasing melting within the permafrost, due to concrete’s ability to leach water and heat.

- Bill: What Wayne has made is good, but from an enforcement standpoint, it's going to be hard to enforce if a job was done poorly, due to a lack of specifics within the standards.
- Jim noted that a specific that may need to be added is a minimum well diameter for bentonite. Since there are a lot of monitoring wells, it may be a good point to add.
 - Charley responded that currently, the regulations include monitoring wells and others. Contaminated Sites of the DEC has regulations that include decommissioning for monitoring wells. We as a group, need to consider how broad we want our standards to reach.
 - Kathy asked the group whether we want to consider confining this to potable wells and point to contaminated sites for monitoring wells.
 - Wayne noted that in his edited version boreholes were added.
- Bill: The Wisconsin guidance (provided via email before the meeting) has a lot of good information, maybe we can point to that?
 - Chris responded that we could use it as copied.
- Jim asked what the current regulations are on abandonment, and where are they?
 - Bill responded that there are some in the drinking water regulations.
 - Charley clarified that this does also apply to private water wells if it is decommissioned.
 - David added that there also regulations for it within DNR, but they essentially point to the DEC.
 - Charley: DEC doesn't necessarily enforce these standards for private water systems, unless they are a near public water system, but even then, in the past it hasn't had very much success.
- Lee added that if the standards get too complicated, people will just end up ignoring them and the well will get cut off and mowed over.
 - Kathy responded that that is why we are currently listening to recommendations, because currently it's too complicated since it refers to somewhere else. We need something straightforward to work to our benefit.
- Charley suggested that there should be a disclaimer for atypical situations
 - Wayne added that that is apparent in the edited version
 - Kathy also added that here should be wording that atypical situations need to undergo a plan review from engineering.
- Chris suggested that currently the abandoned well definition's use of "permanently discontinued" is rather ambiguous
 - Wayne asked if was looking to introduce a time element.
 - Chris responded that from Wyoming's regulations it is considered abandoned if it has been left for over a year without being maintained.

- Wayne: That is good wording. Would also be good wording for water rights.
 - David responded that he also liked that wording.
- Kathy summarized that currently, it seems as though the group likes the edits with the artesian wells, the time element, and atypical situations requiring plan reviews.
- John added that “Properly” decommissioned in abandoned well definitions could be lawyer bait for someone to object too.
 - Wayne responded that in the new edits, he specified and added to that.
- Charley: Sealing inside the casing and not annular space may add possible contamination routes. Grout seal in annulus may get away from pulling casing.
 - Bill responded that pulling the casing is like pulling teeth.
 - Charley asked about perforating the well.
 - Bill responded that the only instance where this is needed is if there is leakage around the casing like in an artesian well. Perforating with a packer would allow you to inject and shut off leakage, and the material is available.
 - Charley then asked about cutting to a certain depth and sealing on top of that. If subsurface seal was never put in then the pathway is still there.
 - Bill responded that the pathway isn’t much of a pathway, as soon as they get into the hardpan/clay, it’s shut off.
 - Charley added that with a grout depth of 20’ or less, it shuts off not just the annulus but also casing seams where water and contaminants can get inside of the casing.
 - Jim added that in other areas of the country, many wells drilled through sedimentary rock, typically stay open and have annular spaces. Many of these techniques apply there and are necessary. Almost all wells are glacial and alluvial material in Alaska, keeping it from being an open conduit. Only situation would be in an artesian situation. We need to keep it simple vs. chase a problem that isn’t there. It’s overkill to pull or perforate.
 - Charley added that glacial till, or other semi-consolidated sediments, do exist in Alaska and will also stay open in places.
- David: As we go through the process, we should lay the issue out there if it becomes an issue, then we can confront it. Charley raises a valid point, and we need to note it and set the concern out there and evaluate whether it’s out there. Alaska has an expanse of issues.
 - Kathy added that we can work on quantifying the times where they occur and define the instances we could consider tackling it.

- Wayne also added that the best indicator is usually a presence of nitrates.
- Kathy asked whether the grout would be apparent on the well log.
 - Charley responded that there are many abandoned wells, such as those found in villages as part of exploratory efforts and many likely have no grout since most are from the 70's.
- Craig asked that if they are not using it, wouldn't the well already be contaminated? What could the future bring to make it worse?
 - Bill responded that currently, it could be drilled in a field, but in the future a tank farm could be added on top.
- Kathy summarized that Charley can work on narrowing down the scope. We need to get everyone to agree, and currently we are just trying to get wells to be properly and consistently decommissioned.
- James: In rural Alaska there are plenty of places where people are gone for more than a year. How does that work with the one year timeframe?
 - Chris clarified that someone could be gone for 10 years as long as the well is maintained with a seal and good construction, for example.
 - James asked how the information on the well is obtained. How will you know how long they have been gone. He added that it seems like an invasion of privacy.
 - David added that they are working on a clock when dealing with issues, or if they find something. Not dealing with an issue of going onto the property.
 - Kathy also added that people aren't necessarily going to be inspected. It will more deal with when issues are brought to our attention, we identify the issue and contact you to either take care of it or decommission it.
 - Jim: One way that this will be used is during property transfers, it will allow for transactions to have teeth.
- Kathy asked whether the group wanted to specify aiming for water wells or other wells as well, and whether the group wants to point to Contaminated Sites for monitoring wells.
 - David asked whether the Contaminated Sites monitoring wells regulations covers monitoring wells outside of the program. He added that DNR has many monitoring and exploratory wells for mining and groundwater observation.
 - Charley said he wasn't sure and that he could send the guidance links out to the group.
- Wayne asked how deep do the exploration wells go.
- Kathy added that it needs to be determined if there is a definitive difference between a monitoring or exploration well. They should be defined in the

regulations. The DEC may not want to cover those kinds of wells because they may be out of our jurisdiction.

- Chris added that he would be meeting with Bill O'Connell from Contaminated Sites the following day and could address some of these questions.
- Fred: If they are drilling for minerals or water or monitoring, they are all essentially holes.
 - Wayne corrected that they are constructions, not just holes.
 - Fred: If they are all penetrating aquifers and water tables, the problem is the same for all of them. They are all issues, but is the way you plug them different?
 - Kathy responded that they will have to check with Contaminated Sites to understand.
 - Fred: What about minerals?
 - David: Oil and Gas is highly regulated in our department. Mining is covered under mining laws.
 - Fred: How many different ways/regulations are there to plug these shafts/boreholes. If the methods are all the same but at different scales, is there a way we can combine them?
 - Kathy responded that she is unsure the agencies would be able to efficiently get together like that. One reason we are talking to Contaminated Sites tomorrow.
- Wayne: The decommissioning log form on the website is old and still in draft form. Called in to find out where to send it and no one could tell him where to go. For years it was sent to DEC because it seemed like a DEC issue.
 - Charley added that it isn't very clear. The engineers can require it as part of plan review, but the standards do not.
 - Charley also mentioned that a generic email addresses for both DEC and DNR are on the top of the form and those that need the form will get the email.
 - Bill asked where the forms are maintained for DEC.
 - Chris responded that for a public water system it goes in the system's folder, for private it gets sent to DNR.
 - David added that they like to tie them into WELTS and with the original well log if it is available.
 - Kathy asked if the group wanted the draft decommissioning form to be sent out.
 - General consensus was to send out the form.
 - Charley agreed to do this.
- With Wayne's consent, Chris offered to take the standards he put together and add the edits from the meeting.

- Wayne agreed.
- Charley mentioned that Appendix A of the NWWA Recommended well decommissioning regulations and standards report that was sent out to the group was initially missed and could be sent out. Mentioned it may be a good reference for the standards.
 - Lee repeated that the standards have to be simple or they will be ignored.
 - Charley responded that he is trying to present issues that may arise when the recommendation is passed up to the DNR/DEC Management and Engineers for internal review.
 - David added that it is a good idea to be prepared for walls we may run into.
- Chris asked the group if the parts in the Wyoming standard about fractured bedrock is throwing in too much?
 - There was a general response and consensus that it wasn't necessary and is still the same technique.
- Kathy: We will work on editing and sending a revised version of the standards.
- Well Construction Standards
 - Kathy: Do we want to start on these today?
 - Jim: Some primers for the conversation
 - Who is going to house them?
 - Are any of the state agencies contemplating biting off a big chunk of work to regulate at MOA level? MOA has invested a huge amount of time and effort to make this work. Not cheap, easy or quick.
 - Wayne added that it has taken the MOA decades to get where they are.
 - Kathy clarified that for standards we are talking about private well standards, we have them for the public water systems. We would not be trying to enforce them, we don't have the resources. This is more to address the issues with bidding and other issues for reference.
 - Wayne asked whether they are talking standards or for advisory?
 - David: DNR has fielded a few complaints about areas where there are no standards. The DNR will not enforce them, but are fully willing to set some standards, the enforcement will come secondary. There needs to at least be minimums. His responsibility is to protect the resources, and when there is contamination to pass it off to DEC. He would like to start the discussion for minimal standards.
 - James commented that trying to apply the MOA standards to rural parts of Alaska would not be feasible. It needs to work for all of Alaska.
 - Wayne responded that they are only using MOA as a starting point to remove and add so that it will fit the entirety of Alaska.
 - Bill added that the principles still apply, and are good everywhere.

- Charley suggested as a way to ease into the concept, we discussed if a well is not going to be decommissioned, then it's maintained, but if we have no standards or regulations on how to keep a well maintained, then we lose strength behind the enforcement.
- Jim added to the comment on rural areas that as of now, anyone in a cabin can go and dig a hole and get water and even obtain water rights, but we need to consider what want to impose on those situations.
- David commented that he would like to hear from the rural areas. Problems and complaints are starting to pop up in the rural areas and he would like to obtain some sort of consensus.
- Jim: A larger issue is that a good driller that likes to use grout on all wells, but a guy down the road may be saving money by skipping the grouting.
- Fred: It would be helpful for a consumer to have a guideline for what to expect to have a well drilled. They need to be able to understand why someone has a cheaper well. The information may not be just for the drillers, it could be more for the consumers.
- Michael Smith asked for a frame of reference for the cost to decommission.
 - Bill responded that the average cost to decommission a well is about \$1,500. Grouting can be about \$50 bucks for dry bentonite.
- Jim commented that maybe we shouldn't consider standards but start with guidelines.
 - Kathy questioned whether anyone really had any issue with making the standards.
 - David recommended that the group write standards for regulations, then provide guidelines that expand on top of the regulations.
- Kathy: We will provide the MOA standards as a draft, and can trim out what needs to be in there. Revise these standards and determine what pieces of information would you want to pick out and keep.
 - Bill added that the basic framework is good and shouldn't just be thrown out.
- Kathy: To recap –
 - DEC will put out live version of website for members to review.
 - DEC will refine Wayne's standards draft.
 - Next meeting will start discussion on well construction standards.
- Wayne suggested to Lee in Fairbanks and the drillers in Wasilla to work together to make edits to the MOA standards and provide to Rebecca to compile comments.

Wrap-up and next Meeting

- Next meeting was agreed to take place after the holiday season January 22nd, 2014 6-8pm

Action Items:

- DEC to send out live link for the private wells and water systems website.
- Wayne/Charley to pick up MOA water well pamphlets to be added to group references.
- DEC will refine and send out Wayne's draft decommissioning standards.
- Chris to discuss/summarize findings from meeting with DEC Contaminated Sites regarding their Monitoring Well Guidance Manual.
- Charley to send out draft DNR/DEC Water Well Record of Decommissioning Form.
- Everyone to review MOA Chapter 15.55 standards and provide comments as what to keep and throw out with respect to construction standards. (or add)

Next Meeting is January 22, 2014 from 6-8pm

Happy Holidays!