



Meeting Notes

**Tuesday, September 26, 2006, 1:15pm-3:45pm
Kearney Holiday Inn and Convention Center**

Present: Daryl Andersen, Little Blue NRD; Jill Baker, Lincoln-Lancaster County Health Department; Jamie Bolen, Southwest Nebraska Public Health Department; Jack Brummet, Lower Loup Natural Resources District (NRD); Russ Gierhart, Upper Big Blue NRD; Mark Graf, Southwest Nebraska Public Health Department; Randy Gunn, South Central NE RC&D; Bruce Hansen, Nebraska Department of Environmental Quality (NDEQ); Gerald Huntwork, Frontier and Hayes County Planning and Zoning; Bill Johnson, J-2 Well Service; John Keith, Lincoln Water Systems; David Miesbach, NDEQ; Jamie Oltman, The Groundwater Foundation; Charlie Pierce, Nemaha NRD; Ralph Pulte, Nebraska Health and Human Services; Marlene Rasmussen, Litchfield Village; Richard Sane, Nebraska Department of Agriculture; Dan Schulz, Lower Platte South NRD; Sean Sutherland, South Platte NRD; Don Vogel, Nebraska Corn Growers; Chuck Wingert, Nemaha NRD; Stephanie McGarthy Wondercheck, Lower Elkhorn NRD.

I. Welcome and Introductions

Jamie Oltman welcomed participants to the meeting and asked everyone to introduce themselves. Jamie also passed around a sign-in sheet and asked everyone to check-off or add their name to the list. This meeting was held following the Nebraska Association of Resources Districts (NARD) Conference at the Holiday Inn in Kearney, Nebraska.

II. Nebraska Wellhead Protection Program Updates

Dave Miesbach informed the group that a total of 68 wellhead protection plans had been approved by NDEQ. He handed out a list of the areas that now have approved plans. Dave also mentioned that currently they do not have a computer person in the office to re-draw wellhead protection area maps. Bruce (Hansen) is the only one in NDEQ's Wellhead Protection (WHP) program right now and it will probably stay that way. Bruce Hansen added that he has been getting a lot of drafts and that is good way to start.

On a related note Bruce Hansen announced that the disinfection rule is being revised. He also mentioned that there are two meetings that will be taking place, one of which will be held in North Platte, Nebraska tomorrow, September 27, 2006 on how a determination is made if a groundwater source is under the direct influence of surface water.

Dave Miesbach welcomed anyone to call him or Marty Link if they had questions concerning wellhead protection.

III. Proper Decommissioning of Abandoned Wells in Nebraska – Progress Made and Lessons Learned

Well Closure Program Overview

Dave Miesbach from NDEQ reminded everyone that Brad Routt is in charge of the money end of well abandonment at NDEQ. Brad does the contractual part of the process - the do's and don'ts. Funding for the program is from the Nebraska Environmental Trust (NET) (\$37,000 for two years) and a U.S. Environmental Protection Agency 319 program grant.

Miesbach reminded everyone that wells must be located in WHP areas to be covered through their funds and both private and municipal wells are included in the program. Miesbach mentioned that one of the biggest questions they run into regards reimbursement. Reimbursement cannot be made to individuals or communities that have already capped wells. Miesbach said that he thinks everyone knows this but it is important to remember. Miesbach noted that the NRD contribution varies and is up to the individual NRD.

Daryl Andersen of the Little Blue NRD commented that generally NRDs contribute 60% of the cost to close a well (through the NRDs' cost share program), and NDEQ covers the rest or 40%. This was changed from 75% and will help NRDs save money. Miesbach added that NRDs generally pay 60% or up to a certain amount (e.g. \$300) and DEQ will provide funding up to \$2000 for one well.

Dave Miesbach went through NDEQ's well closure program process:

- 1) The community notifies NDEQ and the NRD about their interest in participating.
- 2) Wells are identified that need to be properly abandoned.
- 3) A licensed well driller prepares a bid.
- 4) The Cooperative Agreement Information Form is completed and sent to NDEQ along with the driller's bid.
- 5) NDEQ prepares a cooperative agreement and sends it to the community.
- 6) The community and NRD sign the agreement and return it to NDEQ.
- 7) NDEQ signs the agreement and returns the copy to the community and NRD.
- 8) Well decommissioning takes place.
- 9) The well driller submits the bill to the community and the community pays the well driller.
- 10) The community submits the bill to NDEQ and a copy of the bill to the NRD.
- 11) The NDEQ and NRD pay the community.

Dave Miesbach told the group that Marty Link (NDEQ) has pictures of abandoned wells if you want to see photos. He commented that 162 wells are on the waiting list to be closed. A total of 432 wells in 67 communities have been properly closed through this program. Daryl Andersen added that 200+ of the 432 wells closed were in his district. Dave hopes this is a program that

will continue but noted eventually they will run out of abandoned wells in WHP areas. He added that he hopes a way to continue the program will collectively be figured out.

Marlene Rasmussen asked what the cost range is for decommissioning wells. Charlie Pierce answered that it depends on the well. Dave Miesbach added that it varies; typically the larger the well the more it will cost. Daryl Andersen said for one large well in the Little Blue NRD the cost was \$32,000. Sean Sutherland added that contractors in Sidney, Nebraska can charge from \$95-\$110 for a shallow narrow well and that tends to be about average, but the cost can increase to around \$350 for deeper domestic wells.

Randy Gunn asked if an application will be submitted to the NET for funding for the well closure program for future years. Dave Miesbach said that Marty Link takes care of grant applications and assumed that she would re-apply.

Dave Miesbach said the program has improved but there are still wells out there, which is a problem but they are dealing with it. Dave again reminded the group that Brad Routt at NDEQ runs the program and handed out a sheet outlining his presentation.

Abandoned Well Program Case Study

Charlie Pierce presented on well abandonment in the Nemaha NRD and discussed the community closure process. He said that he was going to go over the eleven step flow chart but Dave Miesbach had done that. He said that there is nothing fast about the process and that it takes a lot of time and energy. One of the first steps he would recommend is to visit the town board and get them thinking about wellhead protection. Charlie said that some seem to forget about wellhead protection plans because they are voluntary, but are reminded when other issues come up, like well abandonment. Usually the town clerk is a good resource in the community. The next step as Charlie explained was to inventory the wells. He then wanted to confirm that removing objects from wells was included in the funding provided by NDEQ. Dave Miesbach said that removing debris is part of the process, so it is included.

Charlie Piece then discussed the lack of well drillers in the Nemaha NRD available to close wells. He told the group that the Nemaha NRD closes wells because of this lack of well driller availability and that Chuck Wingert with the Nemaha NRD has a license to close wells.

Charlie shared photos of wells and some of the debris that can be found in wells when they are cleaned out. Some of the items he pointed out included Raid® insect killer and chemical containers. Other examples shared were smaller wells that can be hidden and larger wells that are more difficult to close and require more time and money.

Russ Gierhart asked if citizens are reluctant to have the NRD come into the community to close wells. Charlie shared their experience with Rulo, Nebraska, where a notice was posted that the Nemaha NRD was looking for illegal wells to close. Charlie added that this is another reason why it is important to go to the community beforehand to make sure things are being done right and there are no misunderstandings.

Marlene Rasmussen commented that in most small towns most of the homes once had individual wells and that most are now probably covered. Charlie Pierce agreed that many times wells can be filled over time with dirt and debris. He added that ideally they would like to find ALL the old wells, but to do so is not cost effective. Marlene then asked if there is technology available to locate these old wells that might have been covered over time. Charlie said that there is, but again it would not be cost effective to find these wells. Chuck Wingert added that if a well is filled it is filled; they don't need to go back and re-fill them.

Dave Miesbach commented that old maps of towns are available. Theoretically there should be Sandspur Fire Insurance Maps for many communities; these maps were made after the Chicago fire (which occurred in 1871). These maps will have the location of wells. The maps are available to purchase for about \$150 through the state Historical Society. Chuck Wingert asked if NDEQ was going to buy these maps for others to use. Dave added that they are also available online. He also added that maps of Lincoln are available, but there are gaps between years; regardless they can still be useful. Charlie Pierce mentioned that smaller town maps may not be available. Dave agreed but added that it is another tool that can be used. Marlene commented that the maps could be a good place to start. John Keith commented that it is not just the small towns that can lose track of well locations.

Russ Gierhart commented that local contacts in communities make all the difference and can open many doors. He also offered a positive plug for the well closure program. He said that he has had town clerks do all the paper work themselves. There are not a lot of forms to be filled out and it is simple enough for them to complete.

Abandoned Well Program Case Study

Daryl Andersen gave a summary of all the wells that have been properly closed in the Little Blue NRD. Starting in 2001 the program has grown a lot in his district, mainly by word of mouth. In 2004 he mentioned one specific well that cost \$32,000 to close. He said that the Little Blue NRD paid \$500 from the cost share program and the rest was paid for through source water protection and NET grants. In 2005 they began to run out of money for the program because it became more popular, but the Little Blue NRD still closed a few wells. Daryl added that some communities are still on a waiting list, but other communities, such as Hastings, have started their own well closure programs.

Daryl said overall the Little Blue NRD has closed 213 wells in 13 communities. The total cost has been \$131,000, with \$79,000 coming from additional funding sources (i.e. NET, NDEQ). He estimates that 75% of the abandoned wells in the NRD have been properly closed. Daryl Andersen mentioned that this program is a good public relations opportunity for the NRD and added that it is a great program. The Little Blue NRD will still take money to continue the work.

Dave Miesbach asked the group if abandoned wells are registered before they are closed. He added that Susie Berowitz of NDNR should be contacted to find out if wells need to be registered. Dan Schulz commented that she would say yes. Chuck Wingert said that it is not required. Dave added that he thought it was required by law that a well needed to be registered before it was closed. Dave Miesbach added that by registering the well it puts the well on the

map. Chuck commented that it should be covered on the well abandonment form that is sent in. Dave Miesbach said he could check to see if the cost of registering a well before it is abandoned could be covered through NDEQ.

Dave Miesbach did contact NDNR get clarification on this question. NDNR said that when decommissioning an abandoned well, you only need to fill out a well abandonment notice and send it to them.

Gerald Huntwork commented that rural communities have been targeted but questioned what has been done about abandoned farm sites. Bill Johnson said that it depends on the contractor at the site. Charlie Pierce commented that it goes back to the problem of getting well drillers to do the work. He said that Chuck and he go out when they have time off or things are slow just to get the well closure done. Chuck Wingert added that they typically sub-contract some work and will do wells in clusters of 4-6 in one area. He also said that if land owners don't come to us, we don't know about the well unless it is obvious.

Russ Gierhart mentioned that the Upper Big Blue NRD had sent out mailings that cover one township at a time. It takes time, but this method has been a good way for them to identify abandoned wells. Russ then asked if the program would continue to be promoted if funding was running out.

Dave Miesbach said that he would rather people know about the program and have them turned away then not promote the program. Daryl Andersen commented that this has not happened yet. Bruce Hansen added that a little damage was done when NDEQ didn't have funding.

Rice Street Well Abandonment Case Study and Video

John Keith from the Lincoln Water System presented on the abandonment of a fairly large well in Lincoln. John said that the well was lost and that no one really knew where it was. He gave a brief history about Lincoln's wells starting in 1875 when the first well was installed. The date the Rice pumping well was installed is not known, but it is thought to have been installed sometime between 1893 and 1896. The well was 24 foot in diameter and there was an additional 5 foot well or pumping pit also installed nearby. John said that an outbreak of typhoid fever was blamed on the pumping station and this put the well out of commission.

John told the group that during construction of a new light/crossing section at 24th and N Street contractors ran in to a concrete cap. It was determined after an investigation that this was the old Rice Street well station. At this point Lincoln Water Systems was called. A 2x3 hole was drilled into the concrete cap and an individual was lowered in the hole to investigate. There was a wood-floor and a stair case that lead down into the well. Water could also be seen. It was determined that the well was about 57 feet deep. A diving team was hired to inspect the well and a video was taken as part of this investigation.

John Keith shared the Rice Street well inspection video with the group.

The video revealed wooden ladders and a metal stair case going down into the well. Commentary from the video explained what was being shown. Metal piping and pumps had been corroded, 30

feet of water was still in the well, miscellaneous debris had fallen into the well, about ten feet down there was a wooden floor probably for maintenance work of the well and 10 feet below the wooden floor there was water.

John described the process of the well abandonment. The city had two options. One was to remove all debris and water from the well or to just fill the well with concrete. The second option was chosen because of a strict timetable they were put on because Elliot Elementary School, located at 24th and N, would soon be starting their fall semester. John said that concrete was poured right into the old well and that they did not try to dewater it.

John Keith said the total cost of the project was \$104,000 plus. This was paid for by Lincoln Water System. He commented that one would have thought that with all the construction in the area the well would have been discovered sooner.

Dave Miesbach commented that the well was steamed powered. John Keith added that the well had its own coal house. John Keith also added that the well was thought to be out of commission by 1912 and “closed” by 1919. Bruce Hansen thought Elliot School was built in 1928, so the well was already out of commission by the time the school was built.

IV. Closing Remarks

Jamie Oltman from The Groundwater Foundation thanked Dave Miesbach, Daryl Andersen, Charlie Pierce, and John Keith for sharing their information and experiences. She asked if anyone had further questions. No one did. She then passed out The Groundwater Foundation Annual Conference brochure and Hydro Heroes information. Jamie reminded everyone of the “Price of Water” documentary and “One Nebraska, One Water” projects. The Groundwater Foundation is involved with and handed out information on both of these projects.

Dave Miesbach reminded everyone of the Midwest Groundwater Conference being held November 7-9. He said that it was too late to present, but those interested could still register to attend. The focus of the sessions would be uses of rural water, and he mentioned that it is a good conference to attend because of the amount of CEUs one could acquire from attending. Registration is through the University of Nebraska-Lincoln. Mark Burbach is the conference coordinator, if there are questions.

Daryl Andersen asked if The Groundwater Foundation was planning to hold a meeting again in January at the Capitol. He commented that there will be 18 new senators this next year. Jamie Oltman said that she was unsure of what was planned for the future but would check with Rachael Herpel at TGF.

Jamie again made sure that there were not any questions or comments and concluded the meeting by thanking everyone for coming.