



Nebraska Wellhead Protection Network

Thursday – July 7, 2016
11:00 pm – 3:00 pm

Nebraska Department of Environmental Quality Van Dorn Facility
Lincoln, NE

Present:

Daryl Anderson – Little Blue Natural Resources District (LBNRD), Doug Buresh – Nebraska Rural Water Association, Ryan Chapman – Nebraska Department of Environmental Quality (NDEQ), Whitney Colbert – NDEQ, Dean Edson – Nebraska Association of Resources Districts (NARD), Dick Ehrman – Lower Platte South Natural Resources District (LPSNRD), Jane Griffin – The Groundwater Foundation (GF), John Haynes – Village of Lindsay, Russ Iwan – Metropolitan Utility District (MUD), Mike Jensen – Cass County Zoning, Cindy Kreifels – GF, Marty Link – NDEQ, Carla McCullough – NDEQ, Lindsey Phillips – NDEQ, Sam Radford – NDEQ, Jason Ripa – City of Wilber, Adam Rupe – JEO Consulting Group, Becky Schuerman – Nebraska Department of Health & Human Services (DHHS), Jennifer Swanson – NARD, Ken Swanson – Auburn Board of Public Works, Kate Tillotson – Upper Elkhorn Natural Resources District (UENRD), Terry Ueding – City of Lyons, Jessica Wheeler – GF

Cindy Kreifels (The Groundwater Foundation) – Called the meeting to order, welcomed those present and went over the agenda.

ROUND ROBIN NOTES:

Lower Platte South Natural Resources District - Dick Ehrman reported the NRD has six wellhead protection areas in advanced management for nitrate and that they are working with the water operators. The NRD has been conducting Airborne Electro Magnetic (AEM) survey flyovers for detailed geologic mapping in the eastern part of the district through a Water Sustainability funding grant. This will map the wellhead protection areas at 200 meter spacing. The flights will begin in August and reports will be available by 2017.

The NRD has a second application in for Water Sustainability funding to conduct additional Airborne Electro Magnetic (AEM) survey flyovers in the western part of the district next year. This will hopefully give a better picture of very thin sand/gravel lenses (sometimes only 5' thick) and help those communities with water management. They are continuing the vadose zone monitoring to evaluate future potential contamination.

Little Blue Natural Resources District - Daryl Anderson has been working with Hebron, Shickley, and Fairbury on wellhead protection. In Hebron they are drawing their wellhead protection map. Hebron has a new well due to high nitrates and monitoring wells. Shickley's nitrates are at about 7 ppm. They

are trying to do the GIS work through the NRD. Fairbury is also facing nitrate challenges. They have applied for a source water protection grant for their work. Work in Hastings continues with lagoons being dug to store nitrates.

Metropolitan Utility District – Russ Iwan reported that given the lack of zoning authority he is working with Cass, Sarpy, Douglas, and Saunders counties to develop a multi-county wellhead protection overlay district. MUD has two wellhead protection plans for two plants (South and Platte West).

JEO Consulting Group – Adam Rupe is working on York’s wellhead protection plan which is nearing completion. Adam is also working with Coleridge which will be having its first stakeholders meeting. They are also doing AEM flights in this area.

City of Lyons – Terry Ueding reported that Lyons has its wellhead protection plan in place and is now wanting to put it to good use. Lyons has minimal nitrates and is looking for a good site for a new well that will not compromise their water quality. Many irrigation wells in the area so wants to be watchful of the new well’s location. Terry is very interested in getting some education programs started in the community.

Nebraska Rural Water Association – Doug Buresh is working with Verdigre and Wilcox on wellhead protection plans. Also has three other communities interested in developing wellhead protection plans.

Village of Lindsay – John Haynes reported that Lindsay has an approved wellhead protection plan in place now. Lindsay had high nitrates in their wells until they found another area with good water so they blend water and have successfully lowered nitrate levels. The big push now is to get communication in place -- wants to get their signs up first. John is also interested in working with schools to get students educated.

Cass County Zoning – Mike Jensen is working to get onsite inspections for septic systems in place. He has begun working with MUD on a county-wide overlay district. This has its challenges such as abandoned wells that have not been closed properly. The county wide overlay district would be beneficial but difficult since regulations are written mainly for cities.

Nebraska Association of Resources Districts – Jennifer Swanson is working with the Resources Districts to compile one source location to communities who need information/assistance.

NDEQ – Sam Radford has been working with Whitney on the mapping and getting him up to speed. She has also been working with Adam Rupe on the York wellhead protection plan. Sam is interested in revising the way the contaminant source inventory is currently done to include both nonpoint sources and point sources of contaminants. Sam is also working with the City of Aurora. Aurora is trying to go through the wellhead protection process on their own. Sam plans to try to write up this type of process for other communities who cannot afford outside help to complete their plan. Dick Ehrman asked about the cost of the process; Sam will find out and let us know. Sam is also very interested in risk communication and how that will help communities better communicate with the public.

Marty Link mentioned that groundwater does not get a lot of attention at the national level. NDEQ is using 319 for groundwater which is a unique situation. Hopefully the Bazile test will work and it will become more common place to have groundwater included in watershed management plans. More integration is needed between the Clean Water Act and the Safe Drinking Water Act. GWPC is also working to get more attention for groundwater through Class 2 and Class 5 injection wells. Marty will be the new president of GWPC.

Ryan Chapman is working with Dan Snow on a vadose zone project. Looking at Waverly area using vadose zone research. Dan will have standard operating procedures for sampling and look at travel rates through vadose zone to better estimate loading rates. Age-dating will also be a part of Dan's evaluation.

Lindsey Phillips reported that NDEQ had five applications for the source water grants. Fairbury and Auburn put forth applications for developing a drinking water management plan. If successful, the drinking water management plan could be the first step towards a watershed management plan (access to 319 funding). NDEQ has \$100,000 in source water grant money to distribute. The committee will meet tomorrow to discuss and rank the applications. Also Lindsey will be taking a new position at NDEQ as manager of the SRF grants. Sam will take over the source water grants.

Carla McCullough is trying to integrate groundwater into 319 watershed plans through wellhead protection.

Whitney Colbert is drawing maps – updating worksheets on hydraulic conductivity to produce more accurate maps.

Auburn Board of Public Works – Ken Swanson reported that Auburn's drinking water is groundwater under the influence of surface water. This is a new designation so the city will have to update their wellhead protection plans. Auburn is also doing some baseline sampling and looking for a place for a new well since they recently lost two wells.

Upper Elkhorn Natural Resources District – Kate Tillotson reported they are doing AEM flights in the Creighton area on a 1/3 mile grid. Creighton is getting started with a wellhead protection plan. Sam Radford (NDEQ) and Doug Buresh (Rural Water) presented at a public meeting for the Bazile management area project.

City of Wilber – Jason Ripa has been doing water sampling of both domestic and irrigation wells for nitrates. Wilber is looking into putting in a new well. Wilber provided fertilizer incentives for farmers who agree to only apply fertilizer in the spring. Jason continues to work to balance the city vs. farm issues.

Nebraska Department of Health & Human Services – Becky Schuerman reported that DHHS is the regulatory authority for the Safe Drinking Water Act. She mentioned there will be new regulations coming due to the Flint, Michigan issues – more testing for lead, copper, chlorates and perchlorates, PFOA and PFOS (scotch guard/water repellents). Becky reminded everyone that wellhead protection is no longer a solution to an Administrative Order. This has resulted in additional challenges for Edgar and Osmond. DHHS is trying to help small communities on AO to get funding to address issues. There are 3-4 systems going off of AO.

The Groundwater Foundation – Cindy Kreifels reported that its Growing Groundwater Awareness in Nebraska project has come to an end. Also shared that the Awesome Aquifer groundwater modeling kits are used in classrooms. Just found out that the Awesome Aquifer Kit has been written into the Lincoln Public Schools 5th grade science curriculum. The Awesome Aquifer kits could also be used in communities as a way to educate village boards or city councils about groundwater. Jane Griffin added that the Hydrogeology computer groundwater modeling software has been a big hit with Science Olympiad groups. Now the GF will be working to get high school classrooms to use the software in their classrooms as a way to teach older students about how groundwater flows and how humans impact groundwater.

PRESENTATION

Risk Communication: An Effective Tool for Wellhead Protection Public Awareness and Outreach

Presenter: Steven Wolf, Community Engagement Director, JEO Consulting Group, Omaha, NE

Risk communication is a science-based approach for communicating effectively in high concern/low trust situations or sensitive/controversial situations. Steve shared the basics of risk communication and how these principles may help in communicating the realities of water situations, wellhead protection, and the needs for mitigation or remediation.

See the attached slides and video clip for complete information on the presentation.

EDUCATION COMMITTEE UPDATE

Kreifels passed out the wellhead protection one-pager that was developed to complement NDEQ's Wellhead Protection 101 guide. While it was developed to go with the guide, it is also designed so that it can be used as a stand-alone piece. This piece will help the WHPN speak with one voice. The piece should go to print soon and be available from NDEQ.

The importance of having a social media presence has also been discussed. At this point in time, the network will begin using the Groundwater Foundation's blog, Facebook page, and Twitter to begin sharing out information about wellhead protection.

After hearing Steven Wolf's presentation today, there was a lot of interest in the potential of holding a 2-day training on risk communication. The GF will explore the possibility.

Discussion also included the importance of having water operators at the Wellhead Protection Network meetings. The water operators are very interested in educational materials and getting more education/awareness out to their communities. To further reach this audience, it was suggested to present information at Rural Water conferences, and set up meetings with community clerks (they have regional meetings). Kreifels will provide information about the WHPN to Doug Buresh for Rural Water's quarterly magazine.