



Nebraska Wellhead Protection Network
Meeting Notes

Wednesday, November 28, 2012 10:00 a.m. - 3:00 p.m.
Lower Loup Natural Resource District
2620 Airport Road, Ord, Nebraska

Present: Curt Becker, Lower Elkhorn Natural Resources District (NRD), Daryl Andersen, Little Blue NRD, Douglas Whitfield, Metro Utility District (MUD), Kevin Tobin (MUD), David Sizer, Nebraska Department of Health and Human Services (NE DHHS), Tom Moser, Lewis and Clark NRD, Annette Sudbeck, Lewis and Clark NRD, Harold Reynolds, Midwest Assistance Program (MAP), Jenny Sidlo, Hastings Utilities, Marty Stange, Hastings Utilities, Ryan Chapman, Nebraska Department of Environmental Quality (NDEQ), Mary Schroer, NDEQ, Mike Archer, NDEQ, Gary Poutre, City of Wayne, Jason Moudry, Lower Loup NRD, Tylr Naprstek, Lower Loup NRD, Paul Markowski, City of Wayne, Bob Wallin, City of Wayne, Mary Benhinski, concerned citizen, and Jamie Kelley, The Groundwater Foundation (TGF).

Jason Moudry (Lower Loup NRD) - welcomed the Wellhead Protection network to the Lower Loup. Leon Koehlmoos, Lower Loup NRD manager also welcomed everyone, thanked them for participating and traveling to the Lower Loup.

Jamie Kelley (The Groundwater Foundation) - again welcomed the participants to the meeting and went over the agenda for the day. Kelley began the Program Update portion of the meeting. She encouraged everyone to participate in the round robin, ask questions, and provide updates on recent Wellhead Protection field work or programs.

Nebraska Wellhead Protection Program Updates

Tyler Naprstek (Lower Loup NRD) - shared information about new irrigated acres in the NRD. The NRD received 820 applications for over 22,000 acres. The NRD board decided not to allow new irrigated acres in the City of Ord Wellhead Protection Area.

Mary Benhinski (Citizen) - shared that she was attending to learn more about Wellhead Protection as she has concern regarding a hog confinement near Anselmo, Nebraska.

Ryan Chapman (NDEQ) - shared information about the NDEQ 319 projects including information about the community of Edgar. Chapman also commented that the Groundwater Quality Annual report will be available in print and online.

Dave Sizer (NE HHS) - works on well inspection for HHS.

Daryl Anderson (Little Blue NRD) - shared additional information about the community of Edgar, NE - they have received a 319 grant and funding from the Nebraska Environmental Trust to study well casings and how to remedy possible contamination through cracked/old casings.

Marty Stange (Hasting Utilities) - shared that they have been involved in sampling, looking at aquifer storage, and more public information for their Wellhead Protection Plan.

Jenny Sidlo (Hastings Utilities) - currently works on education and best management practices in the community and throughout the Wellhead Protection Area.

Mary Schroer (NDEQ) - shared that she works closely with the 319 program/grants as well as the Source Water Protection grant program. This past year they were able to fund 4 grants, totaling \$100,000 in projects.

Tom Moser (Lewis and Clark NRD) - shared that the NRD will be working with Colridge, Nebraska on their Wellhead Protection plan.

Kevin Tobin (MUD) - is attending to stay updated as MUD plans to do WHP in the future.

Doug Whitfield (MUD) - added to Tobin's comment that MUD has two groundwater plants.

Gary Poutre (City of Wayne) - shared that the City of Wayne is working on Wellhead Protection Planning but has had some resistance with concerned citizen/land owners. Poutre inquired with the group, what is the best answer to. "Why, Wellhead Protection?" Poutre indicated that some land owners feel threatened or that they will be controlled more with a Wellhead Protection plan in place. Poutre also share that the City of Wayne currently has good water.

Harold Reynolds (MAP) - works with communities in Nebraska and Iowa, providing technical assistance to small water and wastewater systems.

Jason Moudry (Lower Loup NRD) - shared that the NRD received funding from NDEQ for the monitoring of the vadose zone and sampling. He will be working with six communities that have nitrate levels over 5 parts per million. He also shared that he is currently working with other communities on arsenic and iron manganese problems. Moudry also showed a map developed through a GIS tool that is able to show moisture via infra-red technology. The map may be used to show benefits of different types of irrigation and for other best management practices.

Presentation: *Groundwater Awareness Week, Jamie Kelley, Program Manager, The Groundwater Foundation.* Kelley discussed ways The Groundwater Foundation has reached out to audiences during Groundwater Awareness Week and Groundwater Protection Day. Some of these outreach events included a partnership with Panera restaurant to distribute coffee koozies with a water protection message, outreach to youth at libraries, and public relations via radio and television.

Presentation: *Area 28 Nitrate Study, Tylr Naprstek, Water Modeling Coordinator, Lower Loup Natural Resources District.* Naprstek presented the outcomes of a study completed in the Lower Loup NRD Area 28. Area 28 is an area of concern for the Lower Loup NRD. The Area reaches between Columbus and Fullerton, Nebraska and is south of the Loup River. The area has a history of high nitrate levels. The NRD has been studying the area since 2008 and is currently in Phase II management. In 2012 the NRD began work with the engineering firm, Olsson Associates. The main questions to be addressed were: what is contributing to the high nitrates and what can be done to reduce the nitrate levels found.

Naprstek discussed the process the NRD and Olsson Associates took as part of the study starting from compiling all the data available from various agencies including the NDEQ and other NRDs. Other steps included developing a database for the information, GIS mapping, well installation, groundwater well sampling, age dating and isotope test, recharge monitoring and projecting management options.

The NRD received 319 grant funds from NDEQ to complete the project.

It was determined that the majority of the nitrates in the groundwater in the area of study, area 28, originated from commercial fertilizers.

Olsson Associates created a list of recommended next steps for the NRD, however, no steps have yet been decided upon. Some of the next steps include - going to Phase IV management and not allow more nitrates in the area, use fertigation including matching the fertilizer application with the crop needs to reduce nitrate loading and potential leaching, conversion from flood irrigation to sprinkler irrigation, use cover crops and irrigation scheduling, use other best management practices and water conservation tactics such as installing flow meters, variable rate irrigation, controlled releases, etc.

Daryl Andersen asked how nitrate sensors installed by the Lower Loup are working to analyze nitrate inhibitors. Naprstek discussed some the barriers with the nitrate sensors and indicated that the NRD has not yet been able to conclude any findings at this time.

Presentation: *Wellhead Protection Planning Progress, Paul Markowski, City of Ord.* The city of Ord recently completed their Wellhead Protection Plan and Paul with the city Water Utilities discussed aspects of the process. Markowski indicated that the City of Ord has good water but saw the need to complete the Wellhead Protection Plan as a way to ensure water for future generations. The City of Ord received a grant from NDEQ to GIS map all infrastructure of the community water system including sewers and valves. The City of Ord worked with JEO Consulting and the Lower Loup NRD to complete the survey. The information was entered into a program to record the data. Markowski indicated that the Wellhead Protection Committee could continue to meet and look at future educational opportunities.

The group broke for lunch where additional networking among the attendees was able to take place. Various conversations from the round robin continued throughout the lunch break.

Jamie Kelley announced the departure of the caravan to the Calamus Dam. Kelley thanked everyone for coming and announced the next meeting dates. Upcoming meetings include February 25th at the Kearney Holiday Inn and March 15th at the State Capitol Building. Times for both meetings and other information including the agendas will be announced through email invitation.

Those attending the tour departed.

Calamus Dam and Reservoir Tour: Mike Wells, who manages the dam, provided a guided tour of the Calamus Dam gate house and under the dam walk-through. The Calamus Reservoir releases water to a canal which supplies water to irrigators 19 miles south of the dam. The Calamus Dam was not releasing water at the time of the tour but because the Calamus River is a gaining stream, reservoir levels are expected to be normal in the spring.

Before departure Jason Moudry and Jamie Kelley once again thanked everyone for attending the meeting.

Meeting was adjourned.

Following the tour the Education Subcommittee met back at the Lower Loup NRD.

Education Subcommittee members present: Jamie Kelley, The Groundwater Foundation, Mary Schroer, NDEQ, Ryan Chapman, NDEQ, Daryl Andersen, Little Blue NRD, Jason Moudry, Lower Loup NRD, Marty Stange, Hastings Utilities, Jenny Sidlo, Hastings Utilities, Alyssa Smola participated via phone.

The group discussed the goals and target audience for the committee. It was decided that educational resources regarding “Why, Wellhead Protection” should be developed. These resources could be used by anyone presenting information about Wellhead Protection or wanting to become more educated. The committee agreed that a presentation, hand-out resources such as a brochure, and prewritten news releases would be beneficial for NRD staff, city utilities workers, and city boards or councils. Information highlighted as key pieces to be included in the resources were discussed. An initial list of material to incorporate in the resources included - general information, public education, zoning and ordinances, incentives to do Wellhead Protection including the economic benefits, and case studies from other Nebraska communities, emphasizing successes and barriers.

In addition to developing the resources it was discussed that information about the availability of the resources should be promoted at local conferences and meetings.

The education committee adjourned and plans to meet in the next few months to move forward on the objectives discussed.