



Nebraska Wellhead Protection Network

Monday, March 3, 2014

1:00 pm – 3:00 pm

Holiday Inn—Kearney, NE

Meeting Notes

Present: Daryl Anderson—Little Blue NRD, Todd Burrell—Upper Republican NRD, Lash Chaffin—Nebraska League of Municipalities, Ryan Chapman—Nebraska Department of Environmental Quality (NDEQ), Dirk Dinnel—Upper Republican NRD, Dick Ehrman—Lower Platte South NRD, Tammy Fahrenbruch—Tri-Basin NRD, Jason Garber—NDEQ, Travis Glanz—South Platte NRD, Brian Henkel—Papio-Missouri River NRD, Carolyn Hudson—North Platte NRD, John Johnson—Madison County, Cindy Kreifels—The Groundwater Foundation, John Lemon—Upper Republican NRD, Marty Link—NDEQ, Nolan Little—Tri-Basin NRD, Jason Moudry—Lower Loup NRD, Mike Nesbitt—Upper Republican NRD, Anne Pamperl—NDEQ, Lindsay Phillips—NDEQ, Craig Romary—Nebraska Department of Agriculture, Adam Rupe—JEO Consulting, David Sizer—DHHS, Linda Suhr—South Platte NRD, Heather Voorman—The Groundwater Foundation, Chuck Wingert—Nemaha NRD, Chris Witthuhn—Lower Platte South NRD, Galen Wittrock—South Platte NRD, Kyle Yrkoski—Upper Loup NRD

Heather Voorman (The Groundwater Foundation)—Welcomed the participants to the meeting and went over the agenda.

Lash Chaffin—League of Municipalities Zoning and Wellhead Protection Plans

- I. Zoning
 - a. Not every city is the same; different places have different set-ups and different interactions
 - b. There are 6 classifications of cities, all with different laws
 - i. Lincoln and Omaha—different than any other class.
 - ii. 1st class cities—5,000-25,000 (Different population levels matter)
 1. Usually a Mayor and City council
 - iii. Cities of the 2nd class—800-5,000 people
 1. There are some towns that are smaller than 800 and are still classified as a city because they used to have the required population level.
 - iv. Villages—0-800 people
 1. Easiest system to understand with zoning laws

2. Chair person, but no one person is in charge
 - v. Nebraska City—on its own system. A commissioner form of government.
- c. Your first step is to ask what your form of government is before you do anything else.
- d. Zoning is not historically environmental. It came out of the industrial era because they didn't want factories being put just anywhere. Zoning was a tool to plan the city, not to address environmental concerns.
- e. Wellhead Protection—With wellhead protection, there is some ability for a city to control land within and around the city—depending on the class of city.
 - i. In Nebraska, that ability is fairly broad, but what can we do with it?
- f. In theory, you can tack on conditions concerning things like fertilizer application with zoning.
 - i. First you have to create a chemical criteria; a comprehensive plan
 - ii. Then have several hearings on how it's supposed to be structured.
 - iii. Then the city has to adopt formal regulations
- g. What are some issues?
 - i. Nebraska has some concept of grandfathering
 - ii. 2 standards of reasonableness
 1. A zoning law affecting a village—the rule has to be ABSOLUTELY necessary to be valid.—High bar to overcome
 2. In a City of the 2nd class and up—the standard is undue hardship
 - a. Less of a burden than a village
 3. For example: Wahoo has an issue with mechanical shops and town runoff, so the city implements a chemical regulation. There are parts of the town that are not harming with wells, however. Jim Jones then argues that there is undue hardship for the regulation.
 4. Exceptions—The city can make an exception for certain areas—for example, if Jim Jones came to the city council and said “I don't want to be under this zoning law because I'm not contributing to the problem...” the city could carve out an exception.
- h. Easements: Cities can acquire an easement over certain lands and restrict chemical loading.
 - i. For example: In Sydney, the wells are in the middle of nowhere, so the city could purchase an easement from individual land owners so there is no chemical loading in areas around the wells.
 - ii. NRDs could be helpful in calculating
 - iii. NRDs are in a better place to do the wellhead management because they have better tools, but the city's power to deal with it is an opportunity that's just floating around. No other state has done this, so Nebraska could be the first.
 - iv. City zoning might be better equipped to deal with specific issues like feed lots.

To learn more about municipal zoning, please see Chaffin's handout in the Agenda and Presentation Slides section.

John Johnson—Madison County Planning

- I. Norfolk Wellhead Protection Plan—half of the area in Madison County’s zoning jurisdiction—needed Madison County to agree to an interlocal agreement. Johnson’s presentation went through the jurisdiction and responsibilities Madison County faced during this process.
 - a. During the implementation, there were certain limitations based on the type of zoning district and the permitted and prohibited uses.
 - b. There were also several wellhead area protection requirements—from storage of fuels to fertilizers.
 - c. Provided definitions of the terms used
 - d. Zoning Matrix—showed permitted uses, conditional uses, and prohibited uses.

For John Johnson’s full presentation, see his PowerPoint presentation in the Agenda and Presentation Slides section.

Dick Ehrman—Water Resources Specialist with the Lower Platte South NRD Natural Resource Districts’ Groundwater Management Programs and Wellhead Protection

- I. Background on NRDs in Nebraska
- II. NRD Authorities—Water Quality
 - a. Restricted to nonpoint source groundwater issues
 - b. Groundwater Management Areas can be designated by NRD or NDEQ
 - c. Controls for groundwater quality
 - i. Use of best management practices
 - ii. Water/soil analysis
 - iii. Attendance at educational programs
 - iv. Water quality monitoring/reporting
 - v. Additional reasonable rules & regulations
 - vi. Surface water-NDNR
 - d. Phase Approach
 - i. Quality and quantity actions typically triggered by meeting “Phase” requirements
 - e. LPSNRD examples

For Dick Ehrman’s full presentation, see his PowerPoint presentation in the Agenda and Presentation Slides section.

Jason Moudry—Water Programs Specialist with the Lower Loup NRD Utilizing Best Management Practices

- I. Lower Loup NRD’s work with Area 28
 - a. The Lower Loup NRD has been working with an area called “Area 28” on nitrate controls.
 - b. Using additional requirements for nitrogen management
 - i. For example: No Fall Fertilizer, Soil and Water Sampling, Reporting, and water meters.

- ii. For the water meters there is 100% cost share this year, 75% next year, and 50% the next year.
- c. The NRD also has some other considerations and recommendations:
 - i. NRD recommended nitrogen rates
 - ii. Apply nitrogen credit from irrigation
 - iii. Fertigation
 - iv. Conversion from flood irrigation
 - v. Cover Crops
 - vi. Irrigation scheduling
- II. 13 communities in the Lower Loup NRD were above 5ppm
 - a. Currently working with 6 of those communities to determine how to get that number down.

For Jason Moudry's full presentation, see his PowerPoint presentation in the Agenda and Presentation Slides section.

Nebraska Wellhead Protection Program Updates:

Cindy Kreifels; The Groundwater Foundation—The Groundwater Foundation is working on programs to reach out to all parts of communities, including the youth. The Groundwater Foundation has been developing programs with Girl Scouts of America and the National Science Olympiad program to encourage future generations to care about groundwater and work to protect it.

Daryl Anderson; Lower Republican NRD—LRNRD has been continuing work in Edgar, NE help with their ongoing issues. LRNRD is also working with Prosser and Steele City, NE to implement reverse osmosis systems. Fairbury and Hebron face some nitrate challenges, and Hastings is continuing work on their nitrate issues by developing a plan to intercept the nitrates and inject them upstream.

Ryan Chappman; Nebraska Department of Environmental Quality—NDEQ has about 100 wellhead protection plans approved. Currently NDEQ is working on reviewing plans and working with Polk, NE to develop their Wellhead Protection Plan.

Mike Stanzel; Nebraska Rural Water Association—NRWA is working with Bridgeport on a Wellhead Protection Plan with the help of NDEQ. NRWA is also working in Cass County.

Ryan Reisdorff; South Platte NRD—SPNRD is trying to work with communities to get state approved Wellhead Protection Plans. The cities in the NRD are done, and now they are going to focus on working with the villages.

Jason Moudry-Lower Loup NRD—Much of LLNRD's progress is highlighted in Jason Moudry's presentation, but Moudry added they would like to work with the Nebraska Rural Water Association.

Annette Sudbeck-Lewis and Clark NRD—LCNRD is working on getting a wellhead protection plans in their first community, Coleridge, NE. They have been working with Mike Stanzel from Rural Water on this.

Chris Witthuhn-Lower Platte South NRD—LPSNRD is working on collecting water samples. They also have some good deals on fertilizer meters through the NRD.

Courtney Woodman-Upper Big Blue NRD—Working with Hastings on nitrogen application results.

Tammy Fahrenbruch-Tri-Basin NRD—TBNRD is working with villages on their water quality issues.

Carolyn Hudson-North Platte NRD—NPNRD has no communities with Wellhead Protection Plans, but there is a new general manager that would like to get things moving. Also talked about the sub-management area called “LOL” (Lisco, Oshkosh, and Lewellen, Nebraska) that NPNRD has been working with.

Kyle Yrkoski-Upper Loup NRD—ULNRD wants to get some Wellhead Protection Plans in place so they can avoid future problems.

Dave Sizer-Nebraska Health and Human Services-HHS is working on well inspections in the water wells standard section at this time.

Glen Bowers-Twin Platte NRD—TPNRD is currently working with cities in the NRD to develop Wellhead Protection Areas.

John Mohr-EA Engineering, Science, & Technology—Working in Prosser, Fairbury, and the Little Blue NRD on nitrate loading and groundwater management.

Tom Riley-Upper Elkhorn NRD—Previously the UENRD took a hands-off approach to Wellhead Protection Plans, but this is about to change with the Bazil plan and the hiring of a new coordinator.

Chuck Wingert-Nemaha NRD—Two of the communities in NNRD are under administrative order. They have been using blending, reverse osmosis, and well closures to help with some of the issues these communities face.

Rick Wozniak-Lower Elkhorn NRD—LENRD is doing extra monitoring because of high levels of nitrate and arsenic. They are mostly hands-off, but are available for help when people and communities come in and request it.

Kirk Stocker-City of Kearney—bought 800 acres to put 9 wells on to control the radius around the well. The City also registered all quarter sections with digger’s hotline.

