

Nebraska Wellhead Protection Network Meeting Notes
Tuesday, May 4, 2004, 10:30 a.m. – 2:00 p.m.
Gage County Extension Office, Beatrice, Nebraska

Attending: Daryl Anderson, Little Blue Natural Resources District (NRD); Taylor Anderson, The Groundwater Foundation (TGF); Deana Barger, Nebraska Department of Environmental Quality (NDEQ); Wayne Brinkmeyer, Gage County Planning Commission; Doug Cook, Washington County Planning and Zoning; Dick Ehrman, Nebraska Association of Resources Districts; Barb Frohlich, Douglas County Planning and Zoning; Russ Gierhart, Upper Big Blue NRD; Bruce Hansen, NDEQ; Paul Hay, Gage County Extension; Rachael Herpel, TGF; Jan Hygnstrom, University of Nebraska Cooperative Extension; Steve Kelley, Beatrice Water Superintendent, Lower Big Blue Board of Directors; Marlin Kliewer, Gage County Zoning; Jim Kruse, David City Water; Eric Lee, Lincoln Water System; Stephanie Lindberg, U.S. Environmental Protection Agency Region VII; Marty Link, NDEQ; John McKee, Jefferson County, Planning and Zoning Administrator, Emergency Management; Jeff Monhollon, Farmer's National, Village of Cortland Chairman; Larry Murth, City of Falls City; Jennifer Nelson, TGF; Jennifer Pflingsten, Assistant County Attorney, Gage County; Ralph Pulte, Nebraska Health and Human Services; Craig Romary, Nebraska Dept. of Agriculture, Pesticide Program; Clint Schafer, TGF; Tiffany Sutter, Public Health Solutions, Inc., Elbert Traylor, NDEQ; Don Vogel, Nebraska Corn Growers; Carrie Wiese, TGF; Mitchell Wallman, NDEQ; Lisa Wiegand, Gage County Planning Commission; Hope Wise, Nebraska Rural Water Association.

I. Welcome

Rachael Herpel welcomed the group and asked each attendee to introduce him or herself and briefly describe their interest and work in wellhead protection (WHP). Herpel then asked the members of the group to share information about recent WHP activities in Nebraska:

Daryl Anderson (LBNRD) informed the group that a meeting of NRD WHP coordinators will be held in Fairfield on May 5. During the meeting Fairfield will speak about their WHP achievements.

Marty Link (NDEQ) informed the group that Ulysses and Nelson's WHP plans have been approved. There were some issues with the public notice language in the plans. The language needs to clearly reflect that the public can comment on the plan. Thirty-two WHP plans have been approved by NDEQ and more are ready for review.

Link went on to describe the process of getting a WHP plan state-approved. Communities need to go through a planning process, develop a plan for protection, and adopt the plan. WHP plans generally have some mix of voluntary and regulatory protection activities (e.g. public education and a town ordinance). The WHP plans approved to date include protection activities that range from a great deal of protection to very little protection activities included. Examples of WHP ordinances are available on NDEQ's website under the "Contaminants Source Management for Nebraska" section.

Bruce Hanson (NDEQ) noted that ordinances and WHP plans often get voted in as a package. Three readings are required (can be waived) in some towns. County and city methods vary.

Marlin Kliewer (Gage County Planning) told the group that, in their case, the planning commission began the process by holding hearings regarding the county's WHP plan. The commission recommended action to the county board of supervisors. The board had another hearing where they could either act on the commission's recommendation or dismiss the plan entirely. Public notices about the hearings were published throughout the process.

The point was made that a community may adopt and implement regulations to protect their WHP area even if they do not have a WHP plan, and vice versa. Regulations may be adopted that control backflow, cross connections, the drilling of new wells in the town limits, that require everyone in the town limits to connect to the city sewer system, or that prohibit the parking of trucks with hazardous materials within the WHP area for more than 2 hours. These regulations are similar to nuisance ordinances. A community is encouraged to look at what kind of nuisance ordinances are already on the books and how they may complement a WHP program.

Ideally counties will develop a process for their communities to adopt and implement a WHP plan and ordinance. Counties would then assist communities and they adopt a local plan and ordinance that would complement the county's plan and ordinance.

Tiffany Sutter (Public Health Solutions, Inc.) reminded the group that plans and ordinances are great, but they have to be enforced. Enforcement usually takes a certain amount of funding and manpower – something counties and communities in Nebraska often just do not have.

Wayne Brinkmeyer (Gage County Planning Commission) informed the group that in Gage County inter-local agreements between the county and communities makes it clear who is in charge of enforcing the county's zoning ordinance under what conditions.

Jan Hyingstrom (University of Nebraska Cooperative Extension) updated the group about the activities of the Water Wellness Program being implemented along the lower Platte River. The Lower Platte River Corridor Alliance and Cooperative Extension will team up to hold approximately eight meetings in small towns along the river from Columbus to Plattsmouth. The target audience is landowners in the area. The meetings will focus on private domestic wells, risks associated with private wells, and best management practices. The meetings are free and open to the public.

Deana Barger (NDEQ) announced that the Nebraska Source Water Protection Program 2004 Request for Proposals is available. So far one project proposal has been received. Proposals are due by June 1. A total of \$215,000 is available for grants. Deana brought a few application packets with her that she would be happy to hand out.

II. Case Study - Development, Adoption, and Administration of a Countywide Wellhead Protection Program in Gage County

A. Case Study Overview

Wayne Brinkmeyer (Gage County Planning Commission, Chairman) lives and farms in Beatrice's WHP area. The people most impacted by these regulations are his neighbors. He saw the need for a county WHP ordinance because the WHP areas of several communities in Gage County are outside their zoning jurisdictions. The commission looked at other counties' WHP plans to get an idea of what their's should be. The commission got input from the public, cities, and villages. The commission is currently working on an interlocal agreement with the City of Beatrice. Because of the potential for a conflict of interest, Brinkmeyer abstained from votes related to the WHP ordinance; instead Lisa Wiegand chaired the process.

The Gage County Planning Commission is purely an advisory body that makes recommendations to the county board of supervisors. The planning commission may develop and recommend the board adopt a WHP ordinance. The board of supervisors is responsible for making the final decision to officially adopt and implement the ordinance. All WHP regulations will go through two public hearing processes - one for the planning commission and one for the board of supervisors. The goal of an interlocal agreement between the county and the communities within the county is to make it clear who will be responsible for implementing which parts of the WHP ordinance (e.g. surveys, enforcement, etc.) The interlocal agreement document helps each party understand their part of the agreement.

Lisa Wiegand (Gage County Planning Commission) chaired all meetings related to WHP. The process began in January of 2002. Wiegand interviewed stakeholders who would be affected by the ordinance. She talked with many livestock producers about how an ordinance should address animal units, irrigation and domestic wells. There was some concern over fuel storage tanks on farms, potentially increasing the allowable size beyond 1000 gallons of storage. Wiegand stressed that the intention of the WHP ordinance was to create a "watchdog" that would enable the county to be proactive rather than reactive with permitting. The process has made the public much more aware of their drinking water source and the zoning regulations already in place. The process has also let folks know that zoning is in place and any new construction needs to be reported to the zoning administrator.

B. Question/Answer Session

Q - What part of the process was most complicated? Getting started?

A - The biggest challenge in the process was scheduling meetings and doing the work within a certain timeframe. We wanted to act in a timely manner, but we also needed time to talk to the people most impacted by the ordinance. It was important for us to make sure their concerns were addressed. Also, the planning commission is a volunteer board, and it took a great deal of volunteer time and effort to get this done. It was a major commitment for those on the planning commission. It helped that the press was supportive throughout the process. (Wiegand)

Russ Gierhart commented that it seems like lots of counties do not want to think about wellhead protection if they do not have to – they hope the whole issue will not become an issue and will just go away.

Q - How do you interact with contractors in a positive manner? (i.e. make sure they conform to the new regulations regarding the certification of septic contractors)

A – We have relied on the state to help with the certification of septic installers and well drillers.

Steve Kelley (Beatrice Water Department) informed the group that Beatrice’s WHP area has been designated since 1992. A contaminant source inventory (CSI) was conducted for the old wellfield, but no regulations were adopted. He talked to the planning commission about how there were no WHP regulations on the books. A consultant indicated that the city had zoning authority in this area. The zoning ordinance was amended nine years later to include the WHP area.

Kelley is working to overcome a long-standing hostile relationship between the city and farmers in the WHPA. His intention is to smooth over this relationship and find a balance between the farmers’ need to make a living and the city’s need to protect the city’s drinking water sources. Beatrice will have a public hearing about adopting a WHP ordinance, but the city is not planning to develop a WHP plan. The city administration feels it is not worth it to put together a plan since there is no enforcement in this area. Instead the city is working with the county and the Lower Big Blue NRD (LBBNRD) to gather information and work with landowners. For example, the LBBNRD has designated Beatrice’s WHP area as a Level 2 Groundwater Management Area. Cost share funds are available for soil testing and well abandonment. The city provides some funds for these activities through the NRD.

Marty Link pointed out that Beatrice is basically doing everything they need to do for a state-approved WHP plan, except putting it in a notebook and sending it in. Link encouraged Beatrice to develop a plan and be an example for Nebraska’s bigger towns.

Russ Gierhart commented that the City of Seward is in a similar situation. Seward requested individual WHP plans from owner/operators and the owner/operators liked being involved in planning process. The WHP planning process became a community project rather than a case of “agriculture vs. city interests.” The WHP planning process lost momentum when, because of an administrative order for nitrates, the city decided to construct a \$10 million treatment plant.

Steve Kelley made the point that he wanted input on expansion, but did not want to necessarily limit expansion. The city worked with the LBBNRD to do a CSI for both the city’s well fields. The LBBNRD hired the Southeast Community College Agriculture Club to do the CSIs for \$500.

Q – Would other communities in Gage County be interested in having students do their CSI?

A - Wymore may be interested. They just need someone to get the ball rolling.

Q - How much does it cost for a community to enter into the interlocal agreement?

A – The only cost is the legal fees, which would be charged to both the community and county.

Wayne Brinkmeyer commented that he thought it was difficult to get communities to work together on the same time frame. Gage County will work with the communities one at a time. Other counties (e.g. Adams County) have opted to draft and adopt interlocal agreements with all communities and subdivisions of government in the county at one time. This may be a hindrance to getting the interlocal agreements adopted.

Q - Are you grandfathering berm tanks under State Fire Code 30?

A - Old tanks have been grandfathered in. New tanks must comply with the code. Any tank over a certain size must fit in these regulations. New tanks must be self-contained. State fire marshal regulations are tighter than these regulations.

Q – Do you specifically address sand/gravel operations in the ordinance?

A – Currently there are none in the WHP area. There are some in the county. Some in Adams are somewhat close to the city wells - ½ mile outside the WHP area.

Steve Kelley informed the group that there is a contamination plume near the Farmland property. Monitoring wells show areas with VOCs at 2-76 times greater than MCLs. Nitrates have been found at 180-200 ppm. Clean-up work is being done in this area, but it does not specifically address the nitrate contamination.

Q - Have farmers asked if the value of their land would decrease?

A – Farmers have expressed no real opposition to the WHP ordinance. Primarily they just wanted to know what was going on. The Gage County Planning Commission made an effort to talk to all producers one-on-one. It was important for us to listen to all comments and sort them out. The producers appreciated the one-on-one approach.

Steve Kelley commented that Beatrice has an abundance of water. Several neighboring communities have had to ration water, and it puts Beatrice in an awkward position. These communities see Beatrice as a “water hog,” even though the city is drawing water from an aquifer that is not hydrologically connected to the other town’s wells. Overall the local water table is two feet higher than last year, but it is still down a foot from normal. Beatrice has been using the same wells since 1931.

Wayne Brinkmeyer commented that initially the agricultural producers who lived in the new wellfield area were concerned that Beatrice’s wells would impact their agricultural wells. He helped to assemble a group of farmers (with an attorney) and had a hearing. They worked to establish limitations on Beatrice’s water permit. Approximately 2.2 million gallons/day are used by Beatrice. The water transfer permit puts a limit on the amount of water Beatrice can use at 8 million gallons per day. The permit also designates who the Beatrice Water Department can serve - Village of Filley, zoning area, Beatrice West Rural Water project, and the City of Beatrice.

Q - Any conservation requirements within the city?

A – The city has an emergency plan with trigger points based on levels in the city’s reservoirs. The city may declare lawn-watering restrictions (i.e. every other day).

Steve Kelley informed the group that two major leaks in the water system were found and fixed. In the last two years the city has used less water, even though it has been dry, because the two leaks were losing up to ½ million gallons per day.

Q - How is the well location provision enforced?

A – The well location provision is enforced through the state’s permitting process, but not for domestic wells. The county will catch potential violations only when those wells are registered with the state. Potentially illegal wells may not be found until they are already in use. Wells need to be registered within 60 days of installation. A good well driller will check local laws to prevent any problems.

Barb Frohlich (Douglas County Planning and Zoning) commented that Douglas County does not issue a building permit until the county health department has issued permits for septic and wells.

Q - Any use of water meters in Beatrice?

A – Beatrice has used meters since the 1940s. Meters may cut consumption up to ½, and it also helps with wastewater. For example, customers are less likely to let water-wasting problems, such as leaky toilets, go on because it increases their water bill. The cost to install a meter depends on the size of the meter. A computer touch read ¾ inch household meter may cost approximately \$100 per meter. A direct read meter may cost \$80.

Q - What is the NRD’s stance on smaller communities and WHP?

A – Currently there are not many requests for assistance from communities in their area.

Q - How many storage tank permits exist and how are they inspected?

A – The water department or the planning commission grants storage tank permits. The county picks up the cost for inspections.

Wayne Brinkmeyer commented that the amount of fuel used by producers drop when they go to no-till. Incentives exist for pre-buying fuel; as a result, producers tend to keep more fuel in on-site storage tanks. Not everyone is going to get a permit for a storage tank. Brinkmeyer estimated that the county will need to do a CSI every 10 years or so to keep up with the new tanks. He also commented that generally people working with fuel and fertilizers are more aware of the regulations regarding them because of the special use permits they are required to get to handle the material.

Lisa Wiegand commented that the public hearing process has helped the public understand and accept the wellhead protection ordinance. Speaking one-on-one with landowners also helped tremendously. Landowners can be apprehensive at first, which is why the one-on-one approach works well.

Barb Frohlich suggested that when people are testifying at a public meeting, they should be allowed to sit rather than stand — it helps people feel like they are on the same level as everyone else.

III. Open Forum

Jennifer Nelson (TGF) reported that a Source Water Protection Public Awareness Campaign Kit (PACK) is available to all small Nebraska public water systems. Those representing interested systems should contact Jennifer to request a copy. Much of the contents may also be downloaded from TGF's web site (www.groundwater.org).

Clint Schafer (TGF) reported that WasteCap would be sponsoring a social marketing workshop on May 13 at Mahoney State Park. The workshop features information about how to initiate and maintain environmentally sustainable behavior.

Carrie Wiese (TGF) mentioned that TGF will hold a series of seminars as part of its Blue River Basin project. The seminars will be held in York and Crete on May 18, Virginia on May 19, and Marysville and Manhattan, Kansas on May 25. The seminars will feature information on water quality and public health. All NeWHPN members are invited to attend any and all seminars.

Barb Frohlich asked the group about subdivisions that have their own community wells. How does this fit with WHP? Can they enter into interlocal agreements? The group responded that any water system with over 15 service connections is considered a public water system. Marty Link informed the group that these systems may develop a WHP plan, but that they need some type of organized entity (e.g. homeowner's association, etc.) to make sure the plan will be implemented. Counties may also develop ordinances to protect these systems' source water areas.

Doug Cook (Washington County Planning and Zoning) asked the group if there is a sample county WHP zoning ordinance available that EPA or the state would recommend. Marty Link suggested that he obtain copies of the ordinances passed by other counties in Nebraska. Currently 10 to 15 counties have passed WHP ordinances. Each county can basically do their own thing; there are no overarching requirements.

Russ Gierhart asked how a mobile home park would be handled. Public water systems serving a mobile home park are considered to be a community water system and would need to follow those regulations to develop and implement a state-approved WHP plan.

Daryl Anderson asked how counties address areas such as mobile home parks. Marty Link commented that counties can choose how they want to address the source water protection needs of the different kinds of public water systems (i.e. community, non-community, transient, non-transient). The same testing and certification process is applied to all public water systems; however, there are different operator grades for different types of systems. For example, a Grade 5 water operator certification is all someone needs to operate a transient public water system.

Jim Kruse (David City Water) asked what should be done about private water systems in WHP areas. An example of such a system would be a well drilled by a golf course to irrigate the turf. The group commented that generally these types of wells were not allowed in WHP areas, or if they were allowed, only by a special permit.

Doug Cook asked how WHP area delineations are determined and what they mean. Marty Link described arbitrary fixed radius delineations as being an area marking a 1000-foot radius around a well. Delineations done using a computer model use a variety of variables, including information about aquifer conditions, local geology, groundwater flow, gradient, and the characteristics of nearby wells (i.e. volume pumped), to establish time of travel zones (i.e. 20 year, 10 year, 2 year, 1 year time of travel zones). The actual WHP area boundary is larger than the computer model delineation and follows jurisdictional and/or creek lines. This makes for easier management of the area, while also providing some leeway — although the computer model is based on sound science, it is a model and does not generate an exact outline of the source area. For example, the computer model does not take into account the amount of time it takes for water to travel from the surface to the water table (i.e. vertical travel time through 20 feet of dry dirt.) The computer model may also not include items that may have an impact on how groundwater moves in the source area (e.g. irrigation wells, canals, rivers.)

NDEQ has used a computer model to delineate WHP areas for all the community water systems in Nebraska. NDEQ is now developing maps that show all the WHP areas in a county. John McKee (Jefferson County, Planning and Zoning Administrator, Emergency Management) suggested that NDEQ include the WHP areas of non-community water systems in their county maps. This information would be especially valuable to those working in emergency management. Steve Kelly commented that the WHP area signs that notify the public where their WHP area is have been stolen.

IV. Next Meeting

Rachael Herpel asked the group for future meeting topics and locations. Herpel suggested livestock management in WHP areas and WHP for non-community systems as two potential topics and northeast Nebraska as a potential location. Steve Kelley suggested the group take on the task of letting agricultural operators know that areas within 2000 feet of public water system wells are eligible for continuous CRP. Although there is a limit on how much land government (i.e. city and state lumped together) can put in CRP, individuals would still be eligible. There is a 20% bonus payment for CRP in WHP areas.

Herpel adjourned the meeting at 1:40 p.m.

The next NE WHPN meeting has been tentatively scheduled for Thursday, September 23 from 10:30 a.m. to 1 p.m. in David City. Waste management is the general theme of the meeting. Tours of a wastewater treatment plant (David City) and a local livestock facility (Grass Valley Farms, Inc.) will be available to those who are interested in seeing waste management close-up.