



MINUTES OF BOARD OF HEALTH MEETING

October 5, 2016

Meeting was called to order by Chair Kraft at 6:00 p.m.

Board of Health Members Present: Chair Kraft, Supervisor Bostwick, Supervisor Peer, Supervisor Garrett, Dr. Konkol, Dr. Winter, Ms. Wade.

Board of Health Members Absent: Dr. Peterson, Mr. Gresens.

Staff Members Present: Marie-Noel Sandoval – Health Officer; Timothy Banwell – Environmental Health Director; Deborah Erickson – Acting Public Health Nursing Director; Sancee Siebold – Nursing Supervisor South Office; Rick Wietersen – Sanitarian; and Jessica Riedlinger – Administrative Secretary.

Others Present: Land Conservation Committee members: Wes Davis, Anders Dowd, Brenton Driscoll, Kara Hawes, Jeremy Zajac, Alan Sweeney, Russ Podzilni, Tom Sweeney

Adopt Agenda

Supervisor Bostwick made a motion to adopt the agenda. Dr. Konkol seconded the motion. MOTION APPROVED.

Approval of Minutes - 9/7/16

Supervisor Peer made a motion to approve the minutes of the 9/7/16 Board of Health meeting. Ms. Wade seconded the motion. MOTION APPROVED.

Citizen Participation

None at this time.

New Business

Administrative Division

Review of Bills

The Board reviewed the Health Department's bills for the month of September 2016.

Transfer of Funds

None at this time.

Health Department Report

In the News

Flu Season: Ms. Sandoval told the Board members that flu season lasts from September to June. The CDC recommends that the Health Department immunize as soon as the flu vaccine is received.

Surveillance

Ms. Sandoval relayed that there have been several cases of Salmonella in Rock County.

Community Events / Outreach

According to Ms. Sandoval, three Public Health staff members attended the Latino Fair to promote the Public Health Department's safe sleep initiative. A rabies clinic was held at the Rock County Fairgrounds and 438 animals were vaccinated. Everything ran smoothly. The Public Health Department attended the Janesville and Beloit Senior Fairs. There were 57 clients served and 64 vaccinations administered at the Janesville Senior Fair. There were 103 clients served and 128 vaccinations administered at the Beloit Senior Fair. The vaccinations offered included flu, pneumonia, and Tdap.

Strategic Planning

Ms. Sandoval told the Board that the new Health Educator is working on a media plan for the Health Department. She will be evaluating and improving how the Health Department relates to the public.

Budget

Ms. Sandoval stated that the 2017 budget will be presented next week. The Board will have a chance to review and discuss at the November meeting. Ms. Sandoval told the Board that there is a request to upgrade the Health Department's Health Tech position to a Sanitarian I. Mr. Banwell explained that there are new rules in our contract with the state that require the inspections to be carried out by a Sanitarian. Ms. Sandoval also stated that there were cuts to the Preparedness Grant's Zika funding, but it looks like it will be reinstated.

Personnel

Ms. Sandoval announced that the Clerk II position has been filled. Sarah will be starting on Monday. She has a background in accounting. The Assistant Director, Dave, will be starting October 24th. He is currently the Southern Regional Office Director for the Wisconsin Division of Public Health. The Environmental Health Director position is still posted until mid-October. Three interviews were scheduled for the Public Health Support Specialist position, but all three cancelled or did not show. This position has been reopened.

Ms. Sandoval told the Board that the second annual staff retreat will take place November 3rd at Rock Haven. The focus will be communication and teamwork.

The Health Department received a summary of results from the Countywide Employee Engagement Survey. Ms. Sandoval reviewed the results with the Board. The Health Department had a response rate of 71% compared to a 35% response rate for the county. The Health Department's overall score was 3.71 out of 5. The overall score for Rock County was 3.43 out of 5. The survey was broken down into six main categories that were rated on a five point scale:

- Work Environment – Rock County 3.69; Health Department 4.09
- Benefits – Rock County 3.61; Health Department 3.92
- Relationship Management – Rock County 3.38; Health Department 3.56
- Compensation – Rock County 2.92; Health Department 3.15
- Work Engagement – Rock County 3.55; Health Department 3.87

- Career Development – Rock County 2.93; Health Department 3.15

Environmental Health

Groundwater Nitrates – Rock County

Mr. Wietersen did a PowerPoint presentation for the Board members:

Nitrate and Human Health

- **Infants and pregnant women**
 - Methemoglobinemia or “blue-baby syndrome”
 - Possible correlation to central nervous system malformations
- **Adults**
Possible correlations to:
 - Non-Hodgkin’s lymphoma
 - Various cancers (ex. gastric, bladder)
 - Thyroid function
 - Diabetes in children

*Many are statistical studies that provide correlation between nitrate and health problems
 *Studies don’t always agree, but cannot say with certainty that nitrate poses no health risk.
 Nitrate often indicator of other possible contaminants
 (ex. other agricultural contaminants, septic effluent, etc.)

Nitrate in drinking water

- **Greater than 10 mg/L**
 - *Impacted at a level that exceeds state and federal limits for drinking water*
 - DO NOT give water to infants
 - DO NOT consume if you are a woman who is pregnant or trying to conceive
 - RECOMMEND everyone avoid long-term consumption
- **Between 1 and 10 mg/L**
 - *Evidence of land-use impacts*
 - Considered suitable for drinking water
- **Less than 1 mg/L**
 - *Natural or background levels in WI groundwater*
 - Considered suitable for drinking water
- **Percent of Rock County Wells with Unsafe Nitrate Levels (Samples Analyzed in RCHD Lab)**
 - 2003 – 26%; 2004 – 28.8%; 2005 – 24.7%; 2006 – 22.9%; 2007 - 29%; 2008 – 26.6%; 2009 – 27.0%; 2010 – 27.8%; 2011 – 26.7%; 2012 – 31.8%; 2013 – 49.2%; 2014 – 32.1%; 2015 – 25.2%
- **Nitrate in Groundwater 20 Year Trend in Rock County Transient Non-Community Wells**
 - 1996 - 4.05ppm; 1997 – 4.06ppm; 1998 – 4.02ppm; 1999 – 4.33ppm; 2000 – 4.21ppm; 2001 – 4.47ppm; 2002 – 4.43ppm; 2003 – 4.41ppm; 2004 – 4.63ppm; 2005 – 4.53ppm; 2006 – 4.5ppm; 2007 – 4.63ppm; 2008 – 4.77ppm; 2009 – 4.13ppm; 2010 – 4.46ppm; 2011 – 4.31ppm; 2012 – 4.95ppm; 2013 – 6.94ppm; 2014 – 5.19ppm; 2015 – 4.67ppm
- **Septic systems and nitrate**
 - Designed to dispose of human waste in a manner that prevents bacteriological contamination of groundwater supplies.
 - Do not effectively remove all contaminants from wastewater: **Nitrate, chloride, viruses?, pharmaceuticals?, hormones?**
- **Comparing Land-use Impacts**
 - Total Nitrogen Inputs (lb)

- Corn (per acre) 169
- Prairie (per acre) 9
- Septic System 20-25
- Nitrogen Leaching Loss (lb)
 - Corn (per acre) 32
 - Prairie (per acre) 0.04
 - Septic System 16-20
- Amount N lost to leaching (%)
 - Corn (per acre) 19
 - Prairie (per acre) 0.4
 - Septic System 80-90

What can be done to reduce nitrate levels?

- **Short term**
 - Municipal Wells (GCC, 2015)
 - 47 systems have spent >\$32 million as of 2012
 - Water Treatment
 - New wells (Janesville and Beloit)
 - Blending (Janesville)
 - Private Wells (Lewandowski et. al. 2008)
 - New well (not guaranteed, deeper adds to expense) - \$7,200
 - Bottled water - \$190/person/year
 - Water treatment devices \$800 + 100/yr
 - Reverse osmosis
 - Distillation
 - Anion exchange
- **Long-term nitrogen reduction strategies**
 - Timing
 - Fall to Spring Pre-plant - 6% reduction
 - Spring pre-plant/sidedress 40-60 split compared to fall applied – 5% reduction
 - Sidedress – Soil test based compared to pre-plant – 7% N reduction
 - Nitrification Inhibitor
 - Nitrapyrin – Fall – Compared to applied w/out nitrapyrin – 9% reduction
 - Cover Crops
 - Rye – 31% reduction
 - Oat – 28% reduction
 - Perennial
 - Biofuel Crops (ex. Switchgrass, miscanthus) – 72% reduction
 - Conservation Reserve Program – 85% reduction
 - Extended Rotations
 - At least 2 years of alfalfa or other perennial crops in a 4 or 5 year rotation – 42% reduction

Conclusions

- (+) Rock County has geology & land uses that are the perfect storm for high nitrates.
- (-) Nitrate loss to groundwater is inevitable even under current best management practices.
- (+) In areas where land use is consistent expect groundwater nitrates to stabilize.
- (-/+) Where land use changes - expect concentrations to either increase or decrease.
- (+) There are proactive land management options to reduce nitrate leaching into groundwater.

Supervisor Bostwick asked if there are any ordinances about how shallow a well can be. Mr. Wietersen replied that a well must have at least 15 feet of water in it (27 ft deep well). The average is 75 to 150 feet deep.

Supervisor Bostwick asked what the source of nitrogen is in septic systems. Mr. Wietersen replied that it is in waste from food consumption. Mr. Davis asked if there is concerns about other things entering the groundwater from septic systems, such as cadmium. Mr. Wietersen replied that the main concerns would be cleaning products and pharmaceuticals.

Supervisor Garrett asked if municipal wells are high in nitrates. Mr. Wietersen replied that municipal wells have to be below 10ppm.

Mr. Wietersen, the Board Members, and the Land Conservation Committee members discussed the effects of high capacity wells, the use of cover crops, and strategies for informing and educating the public.

Communications and Announcements

Supervisor Bostwick announced that the Land Conservation meeting will begin shortly after this meeting at 7:20pm.

Adjournment

Supervisor Garrett made a motion to adjourn the meeting. Dr. Konkol seconded the motion. MOTION APPROVED. Meeting adjourned at 7:14 p.m.

Respectfully submitted,

Jessica Riedlinger, Recorder

Not Official Until Approved by the Board of Health