



HOLMEN AREA PRIVATE WATER -- EVENT SUMMARY

LA CROSSE COUNTY, WI

APRIL/MAY 2017

This report summarizes the details and data surrounding a water quality event relating to nitrates and bacteria found in drinking water of private wells in the Holmen area during the spring of 2017. Action items and suggested next steps are included.

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BACKGROUND

In June 2016, the nonpartisan Legislative Audit Bureau released a report titled “Wastewater Permitting and Enforcement: Department of Natural Resources” (DNR). The report reviewed the DNR’s performance implementing the Wisconsin Pollution and Discharge Elimination System (WPDES) program. It found the DNR failed to administer and maintain a WPDES program consistent with the requirements established under the Clean Water Act and Chapter 283, Wis. Stats. Among several concerns in the report was the statement about the La Crosse County concentrated animal feeding operation (CAFO) having nitrate levels exceeding limits in its monitoring wells beginning in 2005; the report said the DNR was evaluating this issue.

These findings and concerns were discussed at the July 2016 Health and Human Services Committee meeting. A resolution was passed, which had the following actions:

- DNR will ensure the records of all inspections and determinations are electronically recorded and available in a timely fashion to staff responsible for monitoring and enforcing regulations
- DNR will conduct inspections of permittees within 12 months of expiration of their current permits and not reissue permits before inspections are conducted
- DNR will reissue WPDES permits only when the permittee is in substantial compliance as required by Wisconsin Statutes
- DNR will follow its enforcement policy and issue notices of violations when permittees violate the terms of their WPDES permit.

A copy of the resolution was approved by the County Board on July 21, 2016 and sent to Governor Walker, DNR Secretary Stepp, Senator Shilling, and State Representatives Doyle and Billings. A reply from the DNR was requested within 90 days from receipt of the resolution (by October 22, 2016).

A response received October 18, 2016 was reviewed by the Health and Human Services Committee on November 8, 2016. The Committee consensus was that the report did not provide enough detail and the lead on this issue was transferred to the Executive Committee. The Executive Committee discussed the matter on November 9, 2016.

In early December, the County Board Chair submitted four open records requests to the DNR regarding data on wastewater violations and DNR enforcement efforts.

One of the requests was of the nitrate levels from the monitoring wells at the CAFO from 1/1/10-11/1/16. This data was received in late February 2017. Of the 102 values, 90 exceeded recommended limits.



NITRATE RESULTS

In April and May of 2017, a total of 542 nitrate tests of private drinking water were processed through the La Crosse County Health Department Lab. Of these 542 tests, 164 had results greater than the recommended level of less than 10 mg/L.

30% of nitrate tests exceeded recommended levels.

In March 2017, a team reviewed all available data, including the levels in monitoring wells below the CAFO and lab test values from private wells available from various sources including the Health Department Laboratory and the Interactive Well Water Quality Viewer. This led to the Health Department opening a Department Operations Center and preparing to alert the public of the concerns with contaminants in private well water.

TIMELINE OF KEY EVENTS

March 31, 2017 – Advisory Letter Mailed to 2,000+ Residents

April 6, 2017 – Press Conference

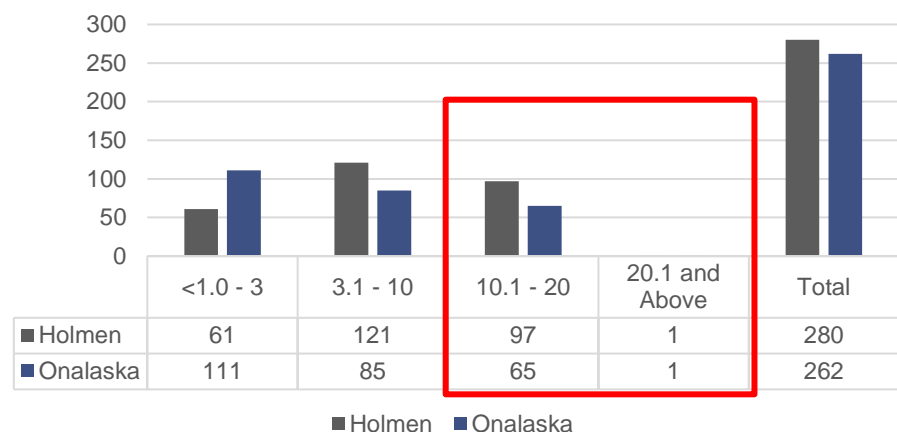
April 12, 2017 – Public Information Meeting, Town of Holland

April 13, 2017 – Public Information Meeting, Town of Onalaska

WATER TESTING RESULTS

The primary purpose of the advisory letter was two-fold to both educate residents about the potential contaminants in their private well water and to urge residents to test their well water to know if contaminants were present. In April and May, 560 residents tested their private well water at the Health Department Laboratory for nitrates, bacteria, or both. Of these, 542 nitrate tests were completed with 164 (30.3%) exceeding recommended levels of 10 mcg/mL or below. In addition, 539 bacteria tests were completed with 41 (7.6%) having positive results for coliform bacteria; all bacteria tests were negative for E. Coli. Figure 1 below breaks down nitrate results by geographic area.

Figure 1. Nitrate Results by Area
April-May 2017



Results Analysis for Nitrates

A large percentage of residents advised of their risk for nitrate and bacteria contamination submitted water samples from their private wells to be tested. Testing results confirm that a high percentage of residents have nitrates above recommended levels in their well water.

The results above 10 mcg/mL (see red box on Figure 1) were plotted on a map denoting clusters. Clusters are denoted in the same areas that initial data indicated. See Figure 2.

Elevated nitrates above 10 mcg/mL in water are most concerning for pregnant women and infants. For pregnant women, it may cause birth defects. For infants, it may cause nitrate poisoning, which requires timely medical attention. When nitrates are elevated, bottled water should be used for drinking, baby formula preparation, and cooking until water is made safe. This can be achieved through installation of a water treatment system, such as those using reverse osmosis.

NEXT STEPS

The Health Department response team conducted an analysis of the strengths, weaknesses, opportunities, and challenges associated with the water quality event.

Strengths included communications with key partners including municipal leaders and elected officials and the Lab's ability to handle a surge in water test samples without delay in notifying residents of results. Two weaknesses were identified, including the Lab's hours (not being open on Friday) and capacity to conduct GIS mapping of data. Challenges included capacity to compile and analyze data quickly and use of social media sites for notification of the water advisory.

Opportunities are consistent with next steps. A multi-disciplinary team will be formed to fully analyze all available data and identify possible solutions to the high nitrates in affected areas of La Crosse County. A subset of this team will participate in a Health in All Policies (HIAP) training, offered to Green Tier Legacy Communities by the Council on Wisconsin Strategy. HIAP offers a guided process to move from data to policy solutions.

For more information about this report or its contents, please contact Jen Rombalski, La Crosse County Health Director, at 608-785-6425 or via email at jrombalski@lacrossecounty.org.



*Figure 2. Nitrate Test Results >10 mcg/mL
April-May 2017*