



**Environmental health** is the branch of public health that focuses on the relationships between people and their environment, promotes human health and well-being and fosters healthy and safe communities. Environmental health is a key part in any comprehensive public health system.

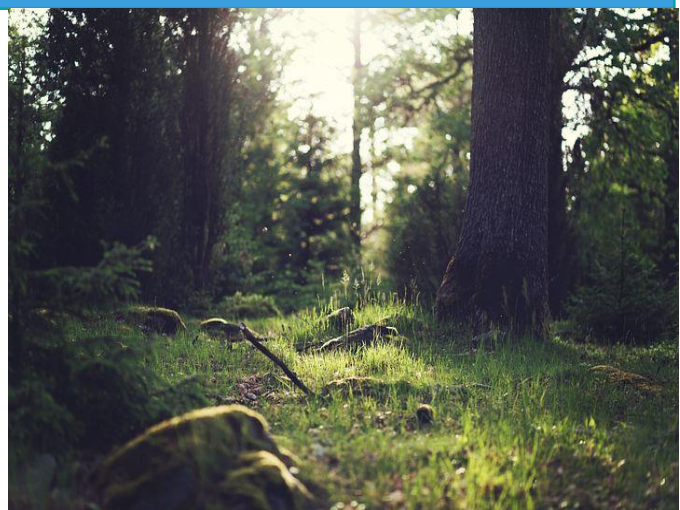
National Environmental Health Association (NEHA) defines environmental health as the science and practice of preventing human injury and illness and promoting well-being. This is done by identifying and evaluating sources of hazardous agents in our community and limiting exposures to contaminants, which can be found in the air, water, soil, food, etc.

This annual report provides a snapshot of how Lincoln County Health Department's Environmental Health Programs work on promoting well-being in Lincoln County.

# Lincoln County Health Department 2022 Environmental Health Annual Report

## In this Annual Report:

- ❖ Program Updates
- ❖ Environmental Health Data Dashboard
- ❖ Performance Management and Trends
- ❖ Program Evaluation





# Program Updates

## Growth

### Lincoln County Sees Growth in the Number of Licensed Establishments

Lincoln County Health Department has seen a significant increase in the number of establishments it licenses. From 2019 to 2021, the number of licensed establishments increased from about 320 to 350. In the 2021 – 2022 license year alone, that number grew to 388. By the end of 2022, we hit a new milestone of 400. Tourist Rooming Houses (TRH) which are commonly found on Airbnb and VRBO account for the majority of these new licenses. While Lincoln County currently has about 82 licensed TRH facilities, nearby counties have seen significantly greater growth in the number of these facilities and it isn't slowing down. While the impacts to the tourism industry are great, the availability of long term housing for residents and its impact on the cost of the housing that is available poses other challenges to the community.

## Updates in Programming

### Staffing

In 2022, Lincoln County Health Department has seen some staff changes and the Environmental Health Program was no exception. Through this transition, LCHD continued to provide technical support, plan reviews and pre-inspections to new businesses and also respond to both establishment and Human Health Hazard complaints with urgency. The onboarding process for environmental health staff is lengthy and has contributed to delays in routine inspections. The initial standardization of our new Environmental Health Specialist by WI DATCP will begin in April 2023 and consists of eight exercises to ensure a uniform inspection.

## What we do----Our Programs & Services

<b><u>Food &amp; Recreational Safety</u></b> <ul style="list-style-type: none"><li>• Ensure compliance of over 400 licensed facilities in Lincoln County</li><li>• Annual Inspections</li><li>• Complaint inspections</li><li>• Pre-licensing inspections</li><li>• Consultation/technical assistance inspections</li><li>• Temporary food inspections</li></ul>	<b><u>Drinking Water Safety &amp; Laboratory Analysis</u></b> <ul style="list-style-type: none"><li>• Drinking water sample analysis</li><li>• Ensure compliance of 79 Transient non-community water systems via sanitary surveys, annual site visits, and seasonal start-up procedures</li><li>• Unsafe drinking water follow up</li><li>• Technical assistance</li></ul>
<b><u>Human Health Hazards</u></b> <ul style="list-style-type: none"><li>• Complaint investigations</li><li>• Enforcement of health hazard violations</li></ul>	<b><u>General Environmental Health</u></b> <ul style="list-style-type: none"><li>• Air quality</li><li>• Emergency response</li></ul>

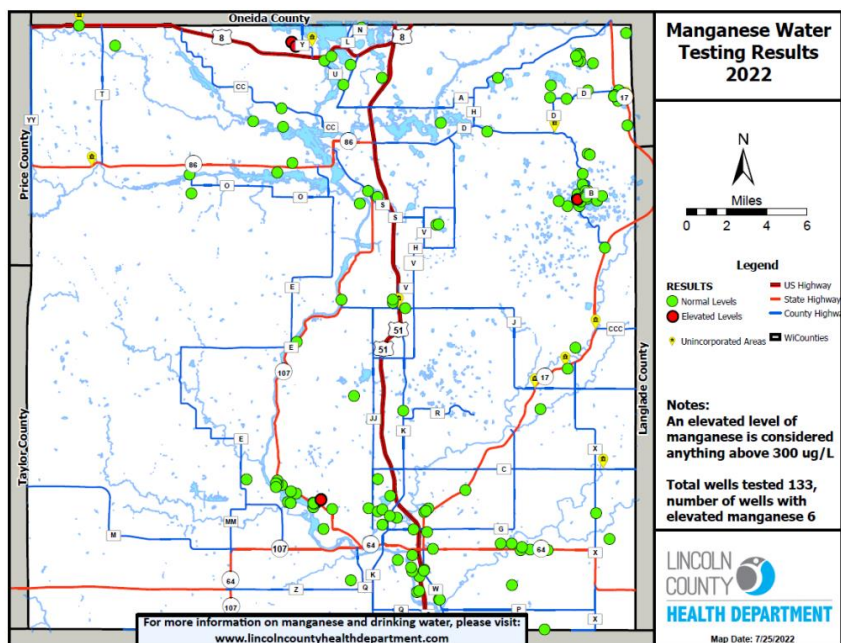
## Manganese Well Water Project Results

Lincoln County Health Department was awarded a grant from the Wisconsin Department of Health Services to provide manganese water test kits, at no cost, to those who live in Lincoln County and have a private well.



Manganese is a common, naturally occurring element found in rocks, soil, water, air and food. Small amounts are part of a healthy diet, however high levels in drinking water can affect health. Infants under 6 months and adults over age 50 are at highest risk. Manganese may be in your water if it has a rust color, causes staining of faucets, sinks or laundry, or if it has an off taste or odor. The only way to know if manganese levels are high is to test your private well water.

Participating Lincoln County residents with a private well received a free water test kit, a copy of their test results and information on next steps if their well water had high manganese levels. This program allowed residents to become better informed about their well water quality and allowed the Health Department to better understand manganese water levels throughout Lincoln County.



## Results

A total of 133 tests were completed across 16 townships in Lincoln County from February to June, 2022. Of the 133 tests, 6 (5%) came back as unsafe to drink due to high manganese levels. Those with elevated levels were given information on next steps and who to contact for assistance in removing any excess manganese by LCHD or the DNR. There were no connections found between all 6 wells as to why they had elevated levels of manganese. See the map above for results. For a review of the project and the results, please see the following report.

## Next Steps if Levels are High

- Contact the [Wisconsin Department of Natural Resources Private Well Water Specialist](#) or a licensed well driller or pump installer to discuss options.
- Infants under 6 months and people over age 50 should stop consuming water immediately.
- Do not boil the water. Boiling the water will concentrate the levels of manganese.
- Use bottled water or water from an alternative safe source, until a long-term solution is determined.
- Install a Point of Use (POU) or Point of Entry (POE) certified water treatment device\*. The Department of Safety and Professional Services approves devices for treating water. Select products and then plumbing products from the drop down menu at <https://esla.wi.gov/verifylicense>.
- Consider an alternative safe source or drilling a new well.

\* Point of Use (POU) and Point of Entry (POE) treatment devices may be used to remove manganese from drinking water. POU devices are used to treat water at the point of use, such as a single tap. POE systems treat all the water entering the home. All types of systems must be properly installed and maintained. Generally, filters found in refrigerators, or water pitchers do not remove manganese.

# Environmental Health Dashboard 2021-2022



## Water Quality (January 1 - December 31, 2022)

Private Water Nitrates	TNC Water Nitrates
4.5% of private water tests with elevated nitrates. (Total # tested: 44 (n=2/44)) Lincoln County average: 3.1%	2.5% of public water tests with elevated nitrates (Total # tested: 79 (n=2/79)) Lincoln County average: 4.7%
Private Water Bacteria	TNC Water Bacteria
13.5% of private water tests positive for bacteria (Total # tested: 148 (n=20/148)) Lincoln County average: 17.4%	3.8% of public water tests positive for bacteria (Total # tested: 79 (n=3/79)) Lincoln County average: 5.9%



## Food, Public and Recreation Safety (July 1, 2021-June 30, 2022)

All License Inspections	License Complaints
61% of facility inspections. Total # facilities: 388 (n= 237/388)	9 complaints Lincoln County average: 10.3
License Enforcement	Pre-Inspections
5.1% of license facility inspections w/enforcement (Total n=12/237) Lincoln County average : 6.5%	58 pre-inspections Lincoln County average: 43



## Environmental Health Hazards (January 1 - December 31, 2022)

<b>Childhood Lead Poisoning</b>	<b>Human Health Hazards Investigations</b>
3.4% of blood lead level of 3.5mcg/dL or more. (23/290) tested)	8 Investigated Lincoln County Average: 5.3
<b>Hazard Enforcement</b>	<b>Animal Bite</b>
37.5% health hazard investigations with enforcement ( n=3/8) Lincoln County Average: 37.5%	2 animal bites with enforcement (Total # bites: 10) Lincoln County average: 10 bites
<b>Radon</b>	
40.2% percent of tests with results at 4pCi/L or greater Wisconsin: 35.2% Lincoln County Average: N/A	

# Dashboard Data Detail

Below are the abbreviated references for the data presented in the dashboard. Note that some measures have more years of data available.



## Water Quality

**Nitrates:** Number and percent of elevated nitrate results (>10 mg/L) from active public and/or private water systems. **Source:** LCHD **Year of data:** 2022; **Lincoln County average** 2020-2022.

**Bacteria:** Number and percent of coliform bacteria present samples from active public and/or private water systems. **Source:** LCHD **Year of data:** 2022; Lincoln County average 2020-2022.



## Food, Public and Recreation Safety

**License Inspections:** Number and percent of licensed facility establishments (food, lodging, recreation, and retail) annual inspections completed. **Source:** LCHD, Health Space **Year of data:** July 1 2021-June 30 2022; **Lincoln County Average** July 1, 2019 - June 30, 2022.

**License Enforcement:** Number and percent of license establishments (food, lodging, recreation, and retail) with enforcement issued resulting in a follow up inspection or re-inspection. **Source:** LCHD, **Year of data:** July 1, 2021 - June 30, 2022; **Lincoln County Average** July 1, 2019 - June 30, 2022.

**License Pre-Inspections:** Number of new license establishments (food, lodging, recreation, and retail) with a completed pre-inspection. **Source:** LCHD, Health Space **Year of data:** July 1, 2021 - June 30, 2022; **Lincoln County Average** July 1, 2019 - June 30, 2022.

**License Complaints:** Number of license establishments (food, lodging, recreation, and retail) with a complaint received by the public. **Source:** LCHD, Health Space **Year of data:** July 1 2021 - June 30 2022; **Lincoln County Average** July 1, 2019 - June 30, 2022.



## Environmental Health Hazards

**Animal Bites:** Number of bites or animal exposure requiring a rabies investigation. **Source:** LCHD, **Year of data:** 2022; Lincoln County Average 2020 - 2022

**Childhood Lead Poisoning:** Percent of children (less than six years of age) tested who had a blood lead level of 3.5mcg/dL. **Source:** Wisconsin Department of Health Services, **Lincoln County average** New Data Source

**Human Health Hazards Investigations:** Number of human health hazard complaints received by the public or organization. **Source:** LCHD, **Year of data:** 2021; Lincoln County average 2020-2022.

**Health Hazard Enforcement:** Number of human health hazard investigations leading to an enforcement abatement order. **Source:** LCHD, **Year of data:** 2022; Lincoln County average 2020 - 2022.

**Radon:** Percent of tests with results at 4pCi/L or greater. **Source:** Environmental Health Profiles **Year of data:** 2021; **Lincoln County average** New Data Source



# Water Quality

Safe and clean water is one of the most important substances in our lives – for drinking, cooking, cleaning and bathing. Lincoln County Health Department Water Quality Program provides a means for safe and clean water through the private and public well water testing and monitoring programs.

## Program Performance Objectives

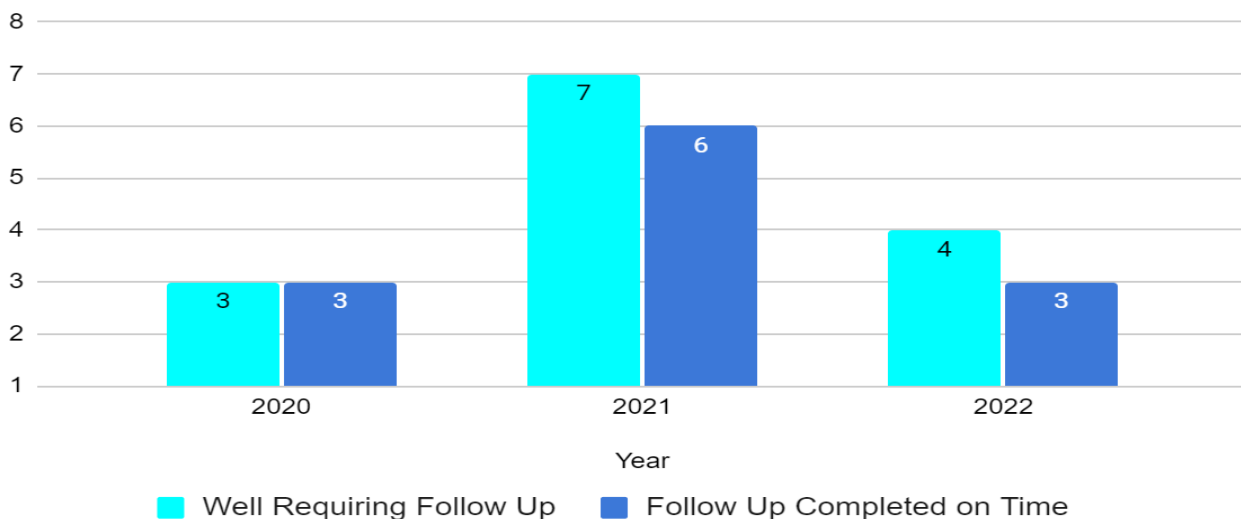
### DNR Well Survey

**Goal:** By December 31, 2022, 100% of TNC Well Operators will complete corrective actions noted during DNR well survey by the deadline given.

#### Baseline:

**During 2022, 4 out of 19** facilities required corrective action during the sanitary survey. Of these 4 facilities, 3 of them completed the corrective action by the original deadline given.

DNR TNC Wells Completing Required Sanitary Survey  
Follow-Up By Deadline



## Tracking Public and Private Water Test Results

**Goal:** As part of LCHD water quality program, public and private well water results are monitored for the presence of bacteria and nitrates. Coliform bacteria, though not usually harmful, indicates the possible presence of disease causing bacteria. A present Coliform bacteria result indicates a need for further testing and/or treating of the well. LCHD goal is to track results in order to identify trends such as identifying any times where issues might peak. Ultimately, this data will assist to lower the rates of present samples in the future make drinking water safer to consume.

**Results:** In 2022, 148 private water tests were analyzed with 20 (13.51%) of those testing present for coliform bacteria. Nitrates are a concern if levels are greater than 10ppm. High nitrate levels are especially a



concern for pregnant women, women who may become pregnant, and infants under the age of 6 months. Nitrate levels vary within the county and are impacted by localized land use. In 2022, 44 private well nitrate tests were completed. Two of those samples (4.55%) showed a level > 10ppm. For public water testing and well surveys, LCHD is contracted by WI Department of Natural Resources to test transient Non-community (TNC) facilities. Examples of such facilities include rural taverns, churches, and campgrounds. In 2022, 79 water tests were completed with three (3.80%) testing present for coliform bacteria and two (2.53%) had a nitrate level > 10ppm.



Safe food, water and recreation are essential to a healthy lifestyle. LCHD plays an important role in preventing foodborne illness and ensuring safe recreation. LCHD is an agent for the WI Department of Agriculture Trade & Consumer Protection and Department of Safety and Professional Services to administer licensing and inspection programs for licensed facilities in our county such as restaurants, hotels, and tattoo.

## Program Performance Objectives

### Standardized Food Inspections

As part of an ongoing effort to meet the FDA Voluntary National Retail Standards and as a recommendation from DATCP, LCHD is working to decrease the number of food inspection reports that have a marking error.

**Goal:** By June 30, 2022, 100% of food inspection reports will be completed following the standardization marking instructions (In/Out/NA/NO) for: Cooking Temperatures, Reheating Temperatures, Cooling Temperatures, Hot Holding Temperatures, Cold Holding Temperatures and Ware Washing.

**Baseline:** An error would be defined as incorrectly marking a section either In, Out, NA or NO. LCHD uses the marking instructions, which indicate how items should be marked, based on observation and discussion during the inspection.

The data collected demonstrated measurable improvement each quarter with the final quarter being all inspection reports were 100% completed following the standardization marking instructions. This data demonstrates that increases attention to the details listed during inspection reporting resulted in fewer errors. This performance measure has been met. Due to change in staff, tracking this information is no longer relevant - similar measurable goals may be used once a new baseline is established.





# Program Evaluation

## FDA Voluntary National Retail Standards

LCCHD role as agent for the WI Department of Agriculture Trade & Consumer Protection and Department of Safety and Professional Services to administer licensing and inspection programs for licensed facilities in our county such as restaurants, hotels and tattoo. Part of this role is to ensure that we assess and monitor are approaches to food safety. The FDA Voluntary National Retail Food Regulatory Program Standards (Retail Program Standards) provides this foundation and system in which we are able to continuously assess our processes and make improvements ensuring the safety and security of the food supply at the retail level. When applied in the intended manner, the Program Standards should:

- Identify program areas where an agency can have the greatest impact on retail food safety
- Promote wider application of effective risk-factor intervention strategies
- Assist in identifying program areas most in need of additional attention
- Provide information needed to justify maintenance or increase in program budgets
- Leads to innovations in program implementation and administration
- Improve industry and consumer confidence in food protection programs by enhancing uniformity within and between regulatory agencies

LCCHD is a proud recipient of an FDA grant in 2023 to complete the self- assessment of these standards as well as to receive National training and mentorship. Standards assessments that have been reviewed in 2022 included Trained Regulatory Staff; Inspection Program based on HACCP Principles; Uniform Inspection Program; and Foodborne Illness and Food Defense Preparedness Response.

## Contact



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