



PLANNING AND ZONING DEPARTMENT

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Town of Sharon 2021 Nitrate-nitrogen Screening Results

A free nitrate-nitrogen screening was held on Wednesday June 9, 2021. The session was held from 8 am until 3 pm. Local residents were invited to bring in a water sample and have their sample screened for a nitrate-nitrogen concentration, free of cost.

Screenings were conducted by the Portage County Water Resource Specialist using a Hach pocket colorimeter for nitrate-nitrogen. In order to do the screening, 10ml of the sample are placed in a vial. A reagent is added to the vial, which reacts with any nitrate-nitrogen present in the sample. The pocket colorimeter reads the color of the sample and associates a nitrate-nitrogen concentration with it.

During the screening, 73 water samples were screened for nitrate-nitrogen. The average concentration over all the samples was 8.68 mg/L. The lowest recorded concentration was 0 mg/L and the highest concentration was 33 mg/L. The state and federal drinking water standard is 10 mg/L. Twenty of the 73 samples (27%) came back over the drinking water standard. We consider any nitrate-nitrogen concentration below 2 mg/L to be at natural or background levels. Levels above 2 mg/L show that there is some human influence. Fifteen of the 73 samples (21%), had results below 2 mg/L or below natural background levels of nitrate-nitrogen.

Two previous nitrate screenings were hosted in the Town of Sharon in 2019. During those screenings 24 samples were screened in Nov. of 2019 with an average concentration of 7.8 mg/L and 29% of the samples exceeded the state drinking water standard. In June of 2019, 57 samples were screened with an average concentration of 4.02 mg/L and only 2 samples exceeded the drinking water standard.

In 2017 a County-wide water quality sampling project was completed. Results from this project showed the average nitrate-nitrogen concentration across the County was approximately 6.5 mg/L, 24% of the samples exceeded the drinking water standard for nitrate-nitrogen, and 48% of the samples had concentrations below 2 mg/L. In the Town of Sharon, 16 samples were collected as part of the 2017 County-wide sampling project. The Town of Sharon results showed a range of nitrate-nitrogen concentrations from 0.1 to 22.4 mg/L, which an average concentration of 5.9 mg/L.

The Wisconsin Well Water Viewer is an online database that compiles private residential well water samples from state certified labs. According to the viewer the Town of Sharon has had 715 water samples submitted. Of those samples, 17% (122) exceeded the nitrate-nitrogen drinking water standard of 10 mg/L and 32% fell below the natural background levels of 2 mg/L. Nitrate-nitrogen concentrations ranged from non-detectable to 35.6 mg/L with an average concentration of 5.5 mg/L. Results from multiple sampling and screening efforts are provided simply to provide context and background information on nitrate concentrations within the Town and the surrounding area.

When a sample was close to the drinking water standard, a resident was advised that they should have the sample tested at a certified lab. A screening is not a certified test and if there is a question about results they should be verified by a lab. Any results that exceeded the drinking water standard were advised that infants, small children, and women who are pregnant or thinking of becoming pregnant should avoid any consumption of the water and everyone should avoid long term consumption of the water.

A complete list of the results are attached with this summary. No specific locations of where the samples were taken were recorded. A screening is intended for the purpose of providing the homeowner with information regarding nitrate-nitrogen concentrations in their own drinking water. Since these results are from a screening and not a certified test, these results should not be used as an official measure of water quality on a large scale.

If you have any further questions regarding the event or the results please feel free to contact me. I look forward to working with the Town of Grant on future screenings and groundwater issues.

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Number of Sample	Nitrate-nitrogen conetration (mg/L)	Number of Sample	Nitrate-nitrogen conetration (mg/L)
1	13.1	43	8.7
2	0.2	44	0.4
3	2.4	45	3.7
4	9.4	46	9.7
5	0.8	47	6
6	31.8	48	29.3
7	33	49	0.5
8	6.2	50	3.5
9	6	51	1.1
10	4.4	52	3.2
11	5.8	53	6.6
12	20	54	19.6
13	9.6	55	10.3
14	2.8	56	22.3
15	1	57	18.2
16	25.4	58	7.7
17	1.1	59	2.4
18	3.9	60	33
19	8.6	61	28.9
20	3.8	62	3.4
21	3.4	63	17
22	8.5	64	3.8
23	12.9	65	10.1
24	24.4	66	2
25	2.5	67	4.9
26	7.1	68	2.1
27	1.3	69	5.2
28	0.7	70	22
29	1.9	71	1.4
30	0.9	72	10.5
31	4.4	73	2.3
32	8.4		
33	16		
34	9.8		
35	2.5		
36	9.9		
37	5.5		
38	13.7		
39	0		
40	5.9		
41	1.7		
42	3.2		

# of Samples	42
Average	7.95
Min	0
Max	33
% Exceeding 10 mg/L	27.39726