2022 - 2024 ACRE Monitoring Well Factsheet



Background

As part of the Agricultural Chemical Reduction Effort (ACRE) program, Dakota County installed 15 monitoring wells in rural parts of the county in 2021 and 2022. Since 2022, these wells are sampled three times annually in the spring, summer, and fall for nitrate, chloride, depth to water, and other measurements.

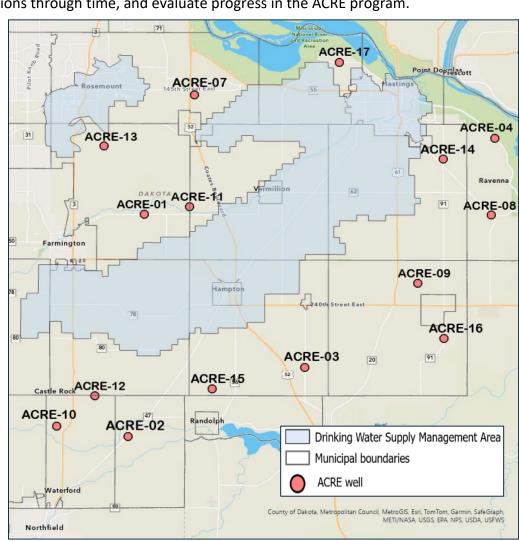
Dakota County will use the results to assess baseline nitrate conditions in vulnerable parts of the county, monitor trends in groundwater conditions through time, and evaluate progress in the ACRE program.

The map below shows the location of Dakota County's ACRE groundwater monitoring wells along with the Rosemount and Hastings Drinking Water Supply Management Areas (DWSMA) shaded in blue, which are areas where groundwater contamination can affect drinking water supplies.

Results from past sampling events can be viewed online with an interactive web-based dashboard. This tool allows users to select specific monitoring wells and dates to see results of all measurements at the time of sampling. To view the ACRE Monitoring Well Dashboard, go to www.dakotacounty.us and search ACRE.



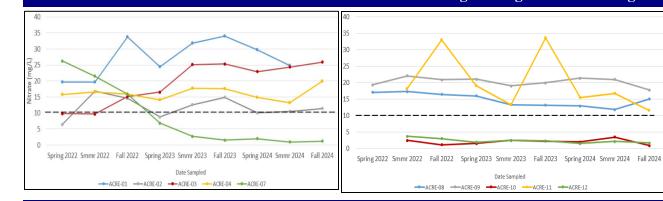
Funding for the ACRE Plan is provided through the Clean Water Land and Legacy Amendment, distributed by the Minnesota Department of Health (MDH) to Dakota County

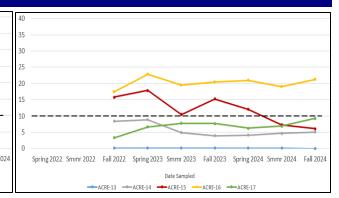


ACRE Well ID	Average nitrate concentration 2023 (mg/L)	Average nitrate concentration 2024 (mg/L)	Average chloride concentration 2023 (mg/L)	Average chloride concentration 2024 (mg/L)	Average depth to water 2023 (ft)	Average depth to water 2024 (ft)
ACRE-01	27.20	27.21	55.76	52.57 - ↓	10.27	9.95
ACRE-02	12.35	11.79 - ↓	11.83	12.26	13.04	12.75
ACRE-03	16.93	19.41 - 🔨	33.35	28.38 - ↓	6.13	6.1
ACRE-04	16.29	16.19	57.35	62.76 - ↑	18.58	18.65
ACRE-07	12.43	8.74 -↓	45.75	53.07 - ↑	86.32	86.39
ACRE-08	15.54	14.78 - ↓	19.18	18.93	124.28	124.39
ACRE-09	20.38	20.27	122.0	124.22	66.03	65.05
ACRE-10	1.91	1.90 - ↓	10.76	11.02	10.92	10.53
ACRE-11	23.41	20.11 - ↓	38.12	29.22 - ↓	6.64	5.47
ACRE-12	2.66	2.32	147.2	157 - 🔨	7.03	6.79
ACRE-13	0.05	0.024	8.47	9.64	33.78	40.84
ACRE-14	6.49	5.67 - ↓	73.62	75.5 - ↑	96.09	95.68
ACRE-15	14.82	12.08 - ↓	9.45	8.15	17.81	14.94
ACRE-16	20.04	20.19	33.3	35.38 - ↑	116.65	114.46
ACRE-17	6.31	6.79	61.42	103.81- ↑	156.41	156.66

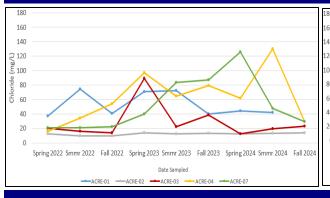
Table 1: Changes in nitrate, chloride, and water level from 2023 to 2024 monitoring. Red up arrows indicate an increase in concentration, while green down arrows indicate a decrease.

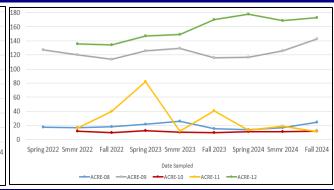
Nitrate drinking water guideline = 10 mg/L

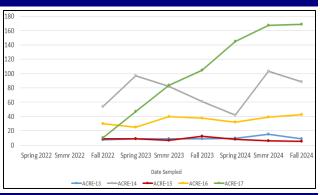




Chloride drinking water guideline = 250 mg/L







Depth to water

