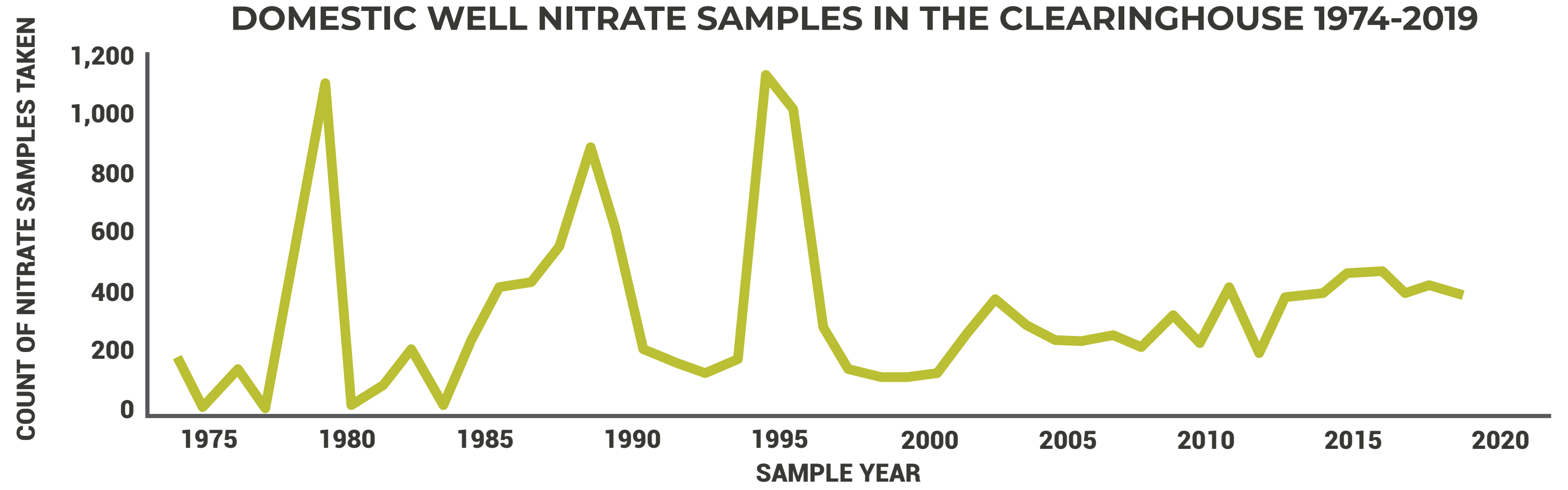


FREE NITRATE SAMPLING FOR PRIVATE DOMESTIC WELLS

NDEE 2023-2024

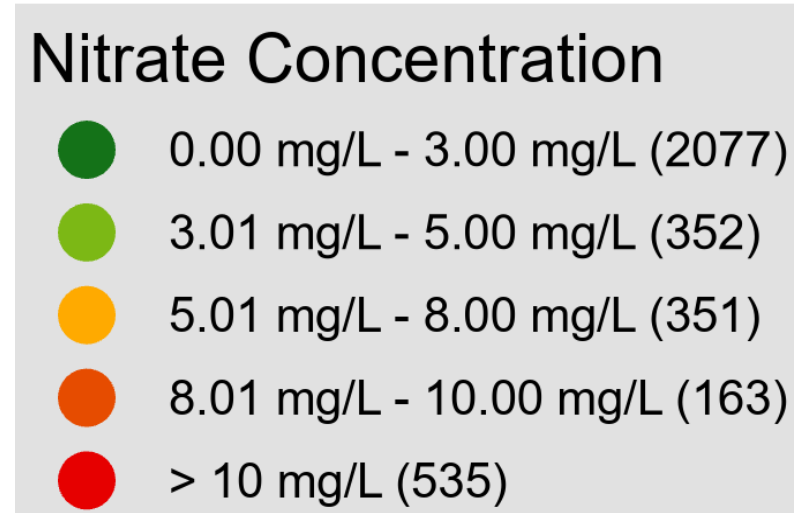
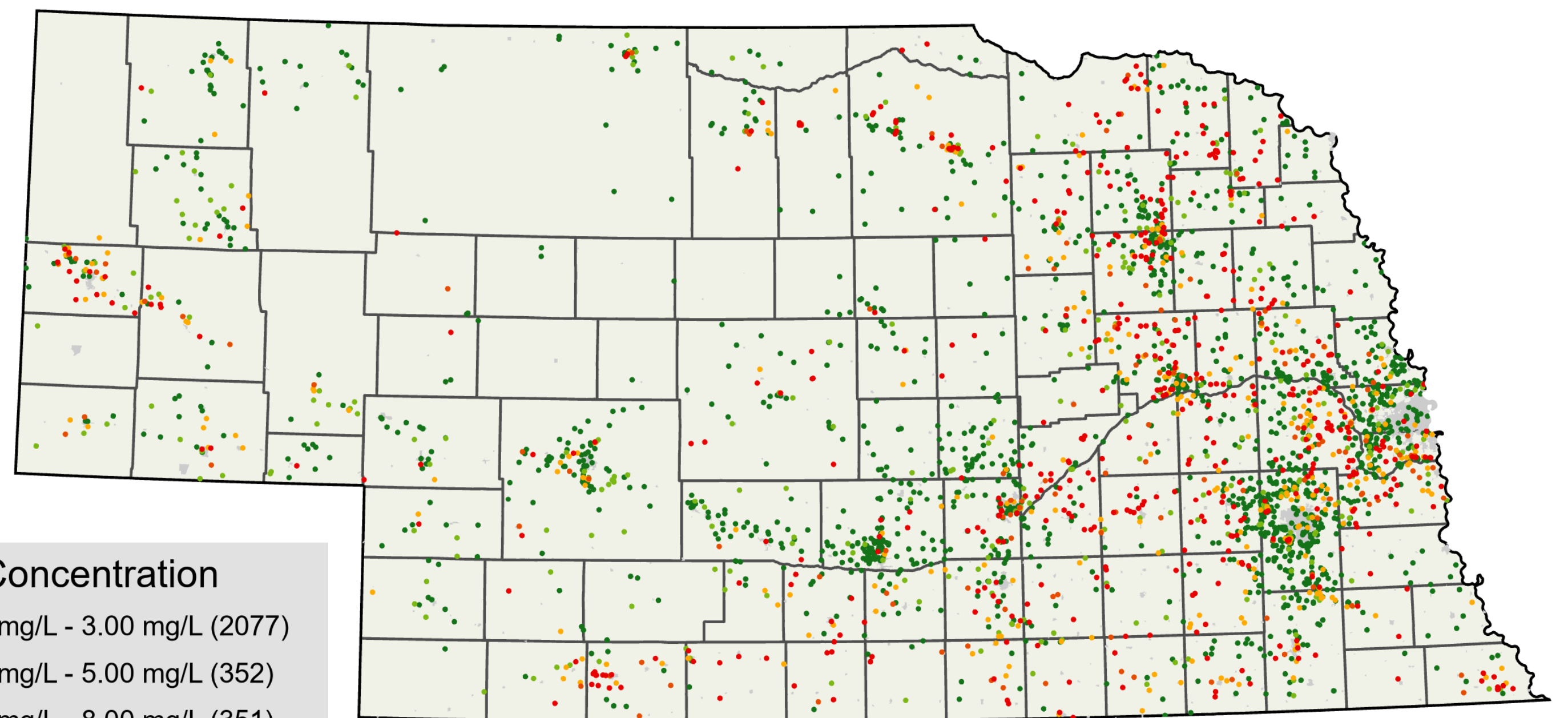
Historically Private Domestic Wells:

- ◆ Were not required to register until 1993 (NDEE estimates up to 110,000 are still unregistered)
- ◆ Are not subject to Safe Drinking Water Act (SDWA) monitoring or quality requirements
- ◆ Sample results have not been consistently incorporated into the Nebraska Groundwater Quality Clearinghouse



3,478 PRIVATE DOMESTIC WELL NITRATE SAMPLES FROM THE 2023-2024 FREE NITRATE SAMPLING EFFORT

The average nitrate concentration for the samples collected as part of the free sampling effort was 4.83 mg/L. Around 15% of the samples were above the SDWA standard of 10 mg/L

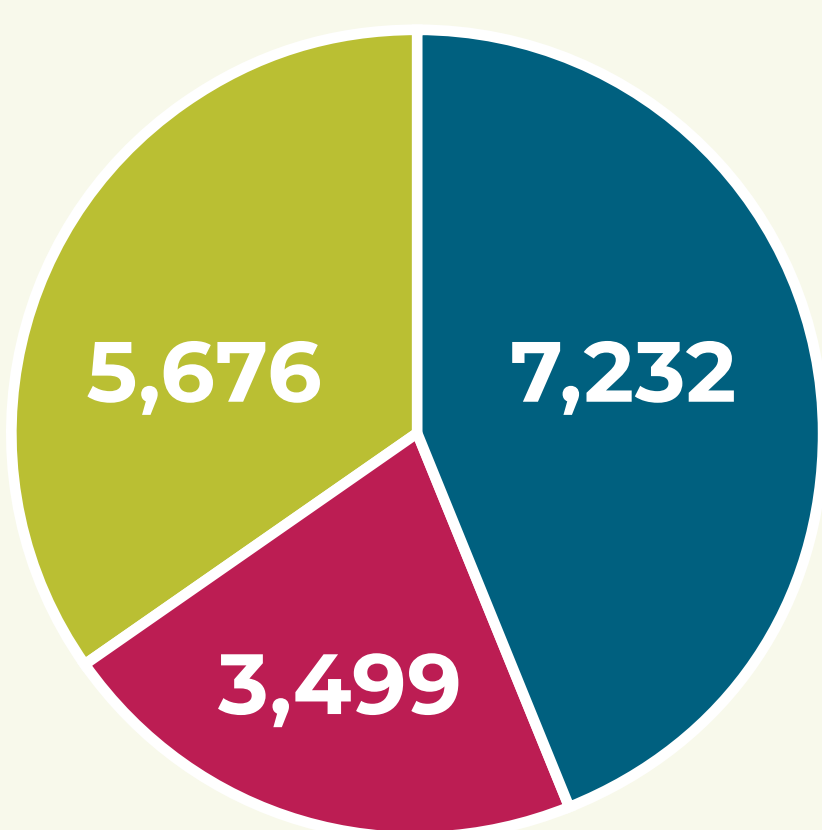


Credits: NDEE Drinking Water and Groundwater Division
Name: NAD 1983 State Plane Nebraska FIPS 2,600 Feet
Datum: North American 1983
Projection: Lambert Conformal Conic

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THIS EFFORT HELPS PROVIDE A BETTER PICTURE OF NITRATE IN DOMESTIC WELLS

- ◆ NDEE led outreach efforts which included a 29K postcard campaign to encourage people to test their wells.
- ◆ NDEE oversaw the largest private domestic well nitrate sampling effort in Nebraska history. Over 4,500 kits were requested and more than 3,400 were returned for analysis. These data help fill a significant data gap.
- ◆ NDEE has provided direct outreach to private domestic well owners as part of this effort



- NE Clearinghouse Domestic Well Samples, 2003-2019
- NDHHS Public Health Lab Nitrate Samples Records, 2010-2022
- Free Test Kit Sampling Effort, 2023-2024

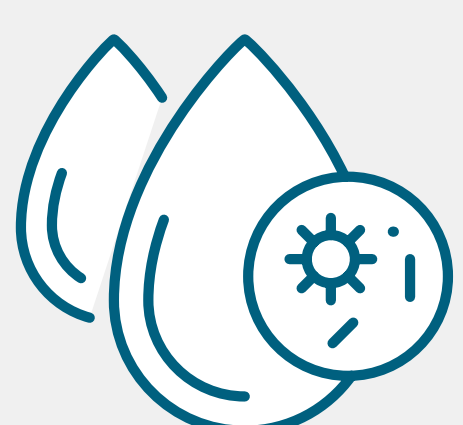
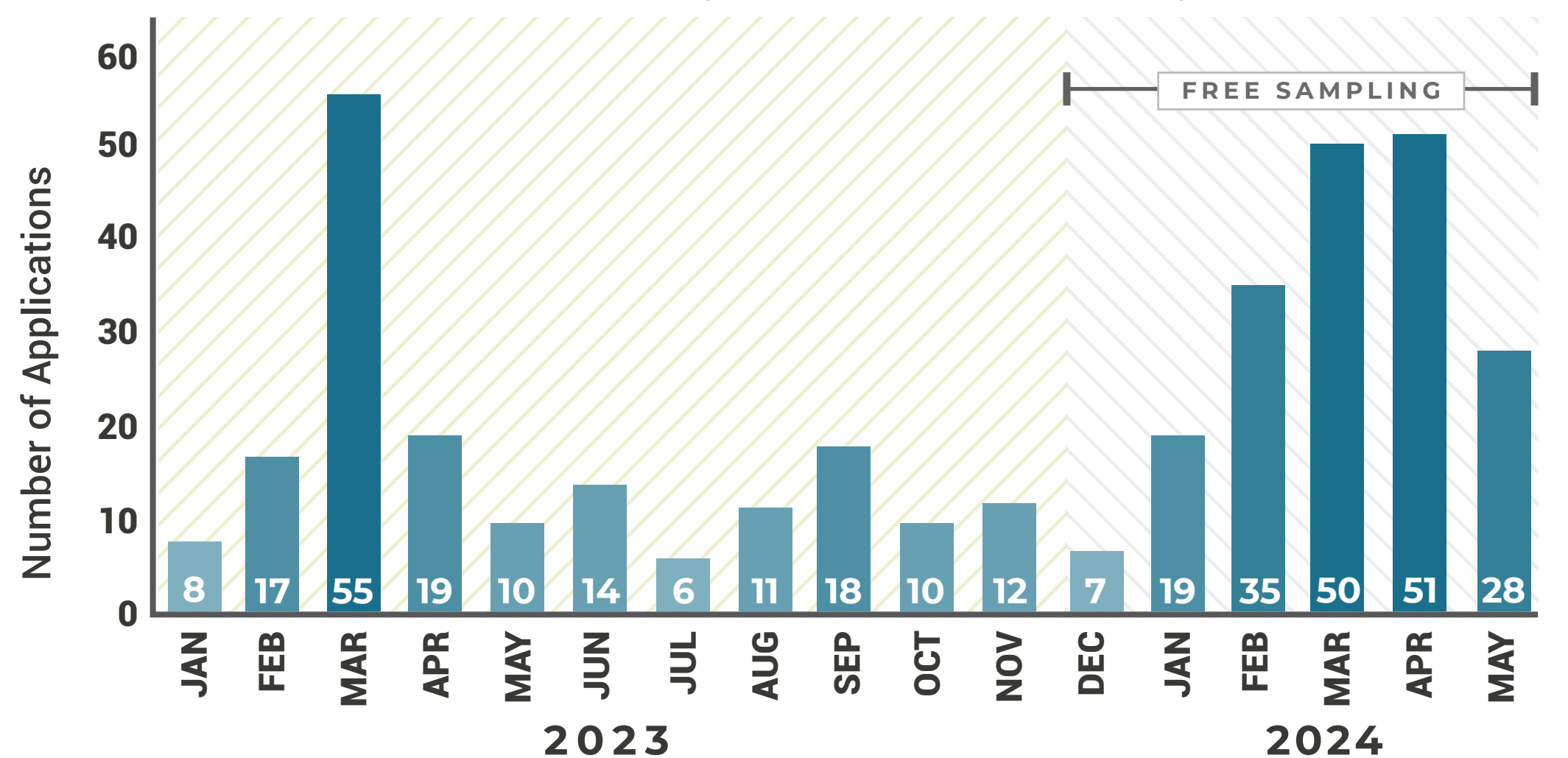
COMMUNICATING WITH PRIVATE DOMESTIC WELL OWNERS RAISES AWARENESS OF WATER QUALITY ISSUES THAT MAY AFFECT THEIR HEALTH

Key factors that make a well more vulnerable to nitrate:

- ◆ **Well Construction:** shallow wells (50-feet or less in depth), improperly constructed wells, and pit-wells (where the wellhead is in a sub-surface pit)
- ◆ **Well Location:** wells near potential sources of nitrate such as certain industrial facilities, wastewater treatment plants, onsite wastewater treatment like septic systems, particularly failing septic systems, agricultural land, and livestock operations

Sampling efforts helped increase interest in the Reverse Osmosis (RO) Rebate Program

DECEMBER 1, 2023 THROUGH MAY 28, 2024



NDEE encourages private domestic well owners to sample their well annually for nitrate and bacteria.

Scan here for a link to request a nitrate and/or bacteria sample kit for a fee.



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