

How non-government agencies reduce barriers to well testing? MNWOO assures all well owners that we only care about the water quality at their kitchen sink.



Jeffrey S. Broberg, LPG, MA

Minnesota Well Owners Organization (MNWOO)

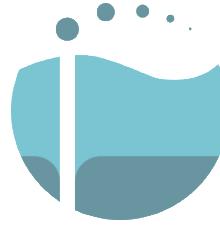
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- **“We can’t help everyone...But everyone can help someone.”**
- *Dr. Loretta Scott*

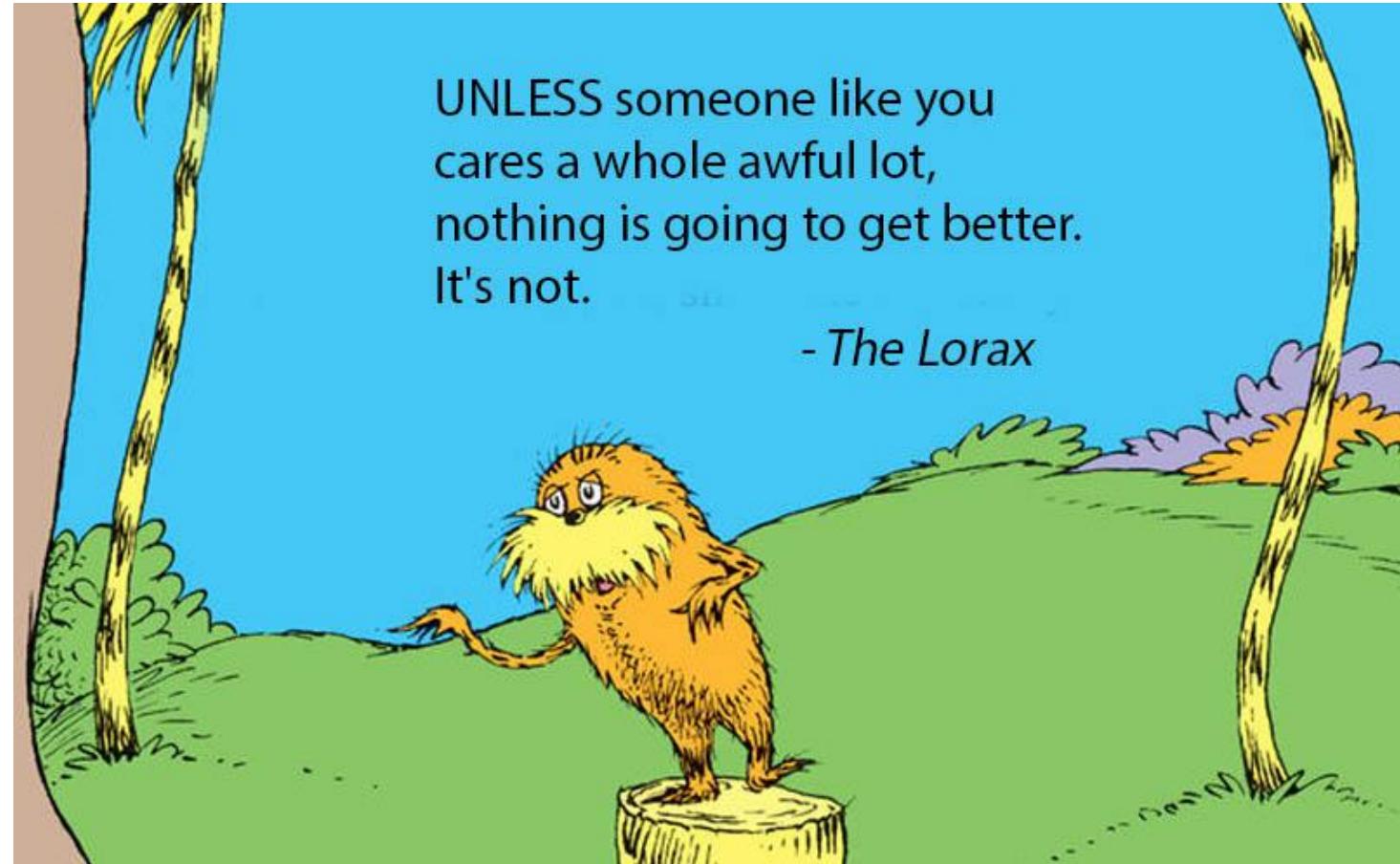
minnesota
well owners organization

MNWOO's Mission

- **Provide education,**
 - **Technical assistance,**
 - **Legal services, and**
 - **Advocacy**
-
- **to those who own private wells and to those who rely on private wells for their drinking water**
 - And to:
 - **Preserve, protect, and restore Minnesota's water resources**

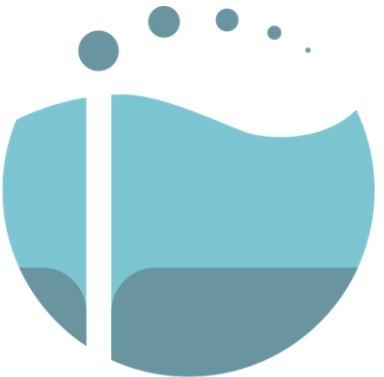


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“Non profits can do things that government can’t do and that business won’t do.”

Jeff Broberg



mnwoo

educate • advocate • preserve



Why Are NGOs Important?

Caitlin Buhr
<http://www.capacitybuildingfordevelopment.com/>

May 6, 2021 Nitrate Clinic in Rochester: 282 well owners with 336 samples in five hours. But we have skeptics.

May 4, 2021

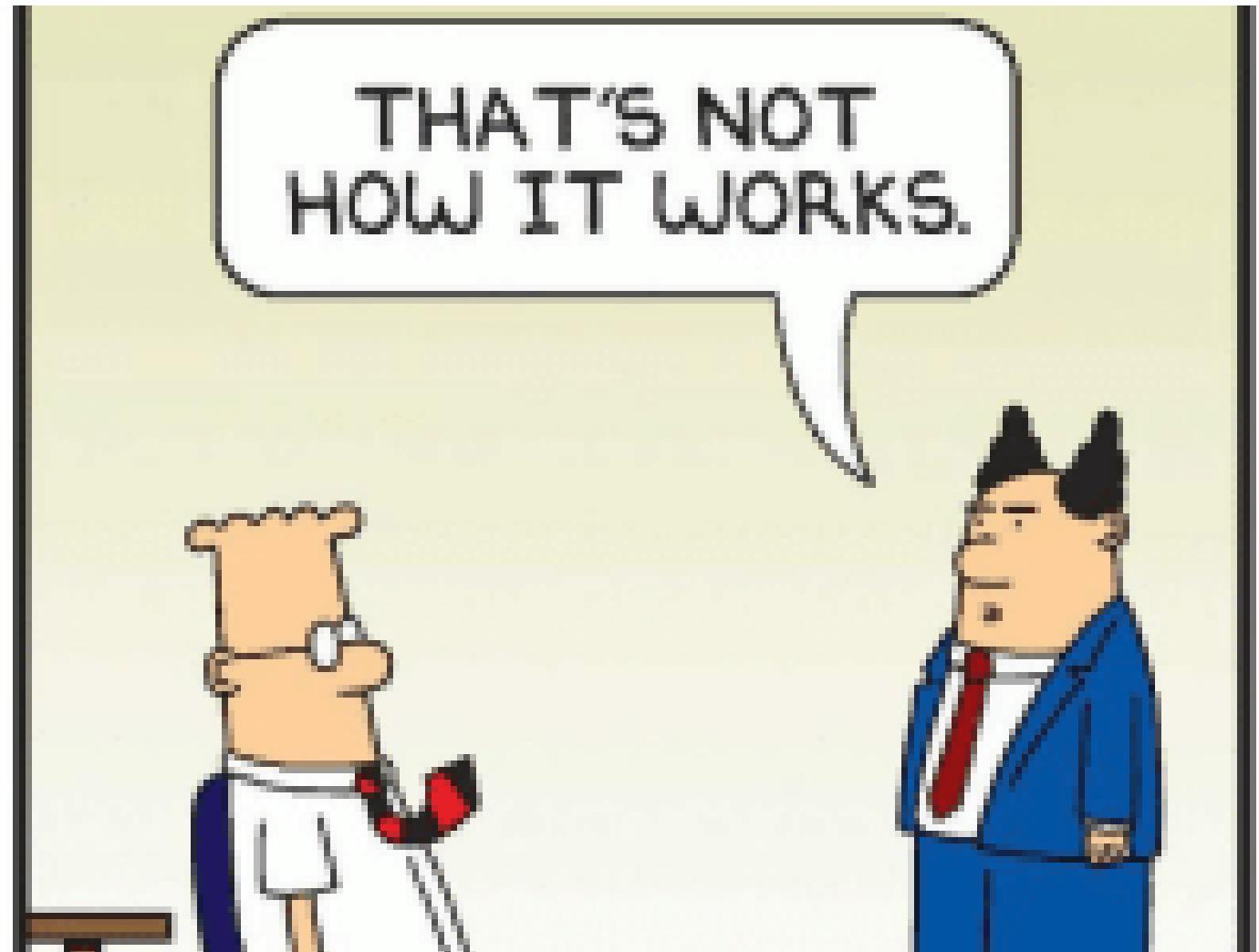
Hi Jeff,

I have recommended the free water testing to friends.

They think their well water is fine and that if they have it tested and there is any concern (which they may or may not address at this time) that their name and results etc will be forwarded to a 3rd party who may follow-up and so they don't plan to do the testing.

Is that the way it works?

Thanks



Dilbert, Scott Adams

Non-profit Partners and Collaborators

**Minnesota Groundwater
Association (MGWA)**

Rochester Area Foundation

Rochester Exchange Club

**Minnesota Alliance for Volunteer
Advancement (MAVA)**

**Environmental Working Group
(EWG)**

**Minnesota Environmental
Partnership (MEP)**



Know your environment.
Protect your health.



Rochester Area
Foundation

Local and State Government Partners and Collaborators

Olmsted County:

Public Health

SE MN Water Testing Lab

Stearns County SWCD

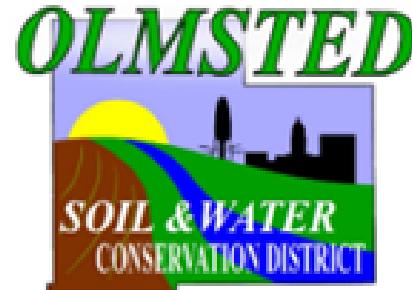
Minnesota State Agencies:

Department of Health

Department of Natural Resources

Pollution Control Agency

Department of Agriculture



Academic Partners and Collaborators

University of Minnesota

Institute on the Environment

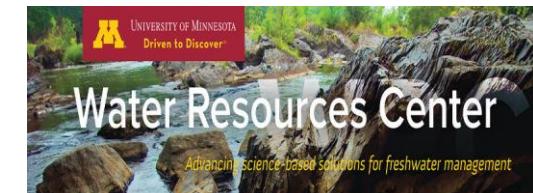
Center for Changing Landscapes

Dept of Earth and Environment

Minnesota Geological Survey

Water Resources Center

School of Public Health



COVID Hit and interrupted our nitrate clinics. We formed a Planning Partnership with MGWA

- Develop strong community norms for routine water testing
- Demystify private water system assessment and maintenance
- Promote effective water treatment when needed
- Promote effective source water protection when water quality meets drinking water standards
- MNWOO/MGWA put together 7 teams with 26 volunteers and a combined groundwater experience of over 900 years

With a central question:
How do we recruit our
retiring associates to
volunteer and stay active?



How to recruit and support sponsors, managers, hosts and volunteers



- Developing a toolkit for engaging private well owners that details
- Planning, budgeting, logistics
- Communication and outreach with existing resource links to both partners and well owners

MNWOO Well Owner Relations: Your household water quality is our only concern.

**Barriers Exceed
Motivators**



**Water Screening Clinic
Communication Model**

- During the clinic we have five separate opportunities to capture attention, reduce barriers, make a good impression, and motivate well owners.

Screening and Testing:

Test your well water for:



Coliform Bacteria
(Every year)

Nitrate
(Every other year)

Arsenic
(At least once)

Lead
(At least once)



Private Water System Assessments: Every water system is different.

MDH, 2014, Guide to Water Wells

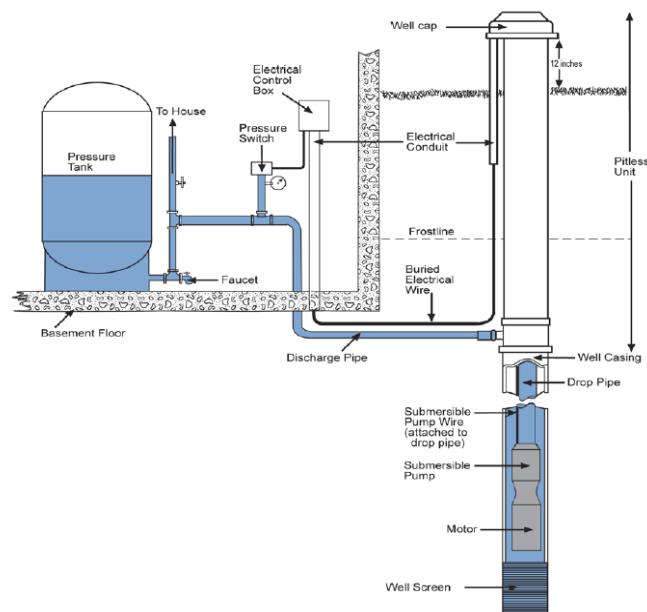
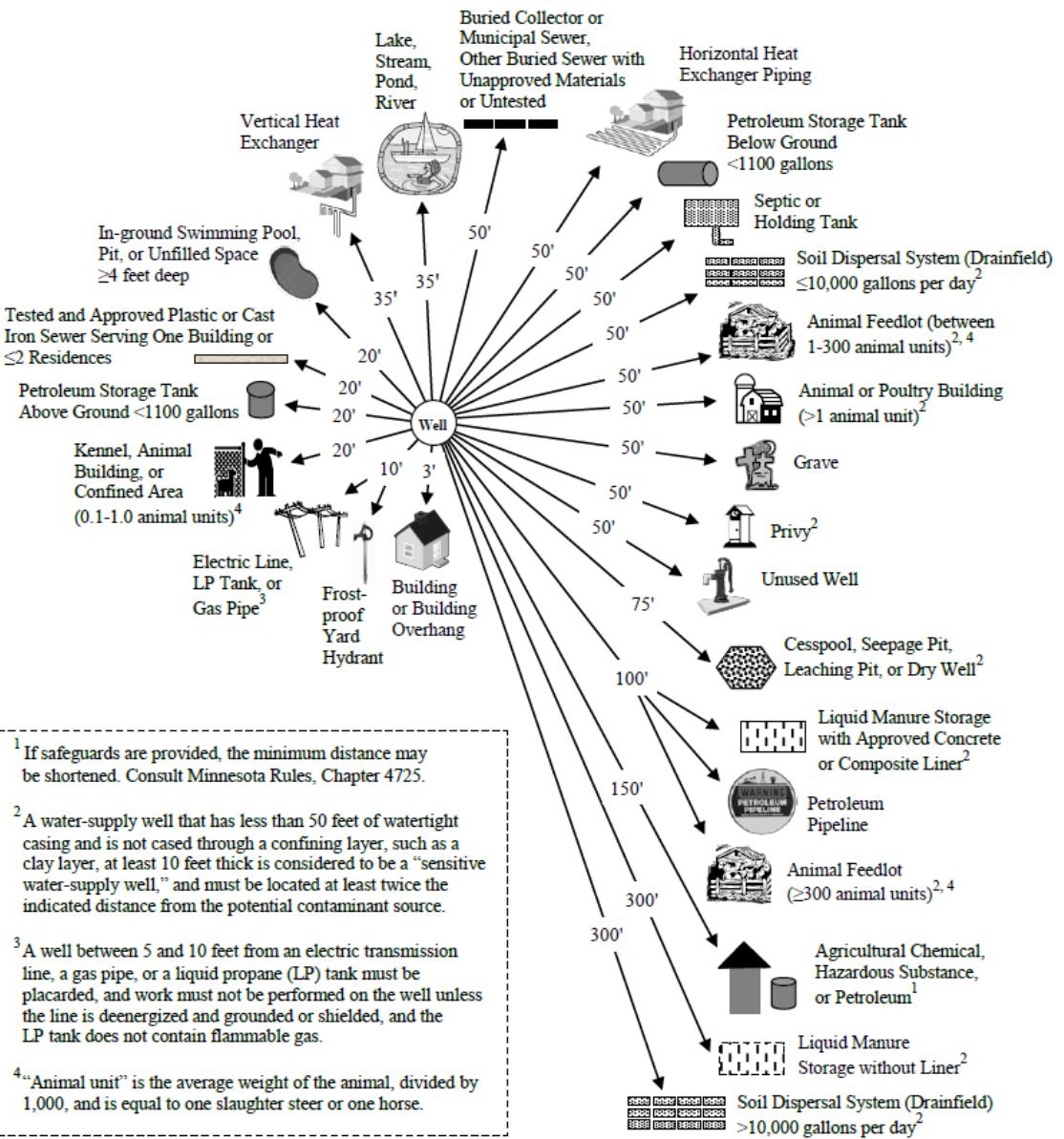


FIGURE 3 Well and Water System.



Treatment

Well owners are often mystified by the treatment options.

Inappropriate and poorly operating and maintained equipment is a problem.

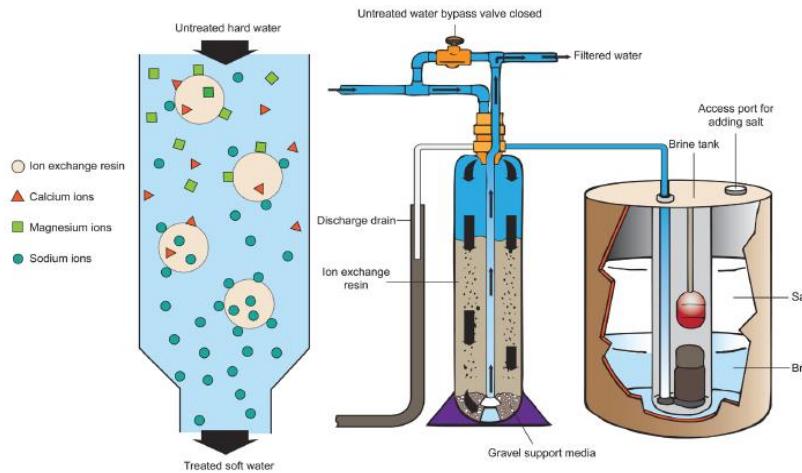


Figure 6. A water softener with schematic showing the ion-exchange process.

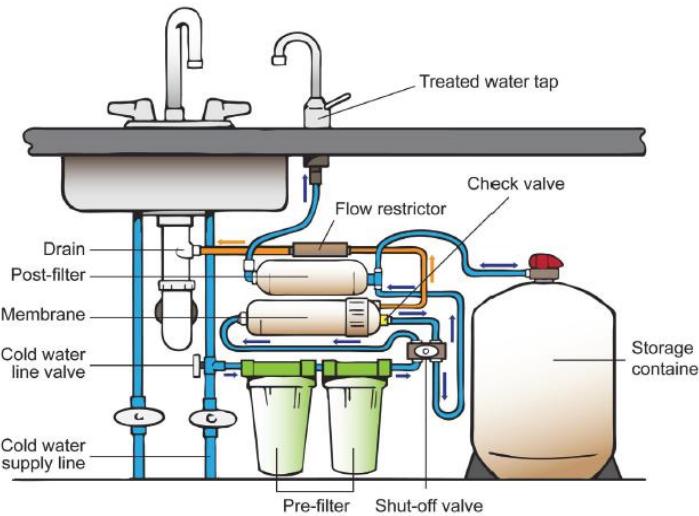
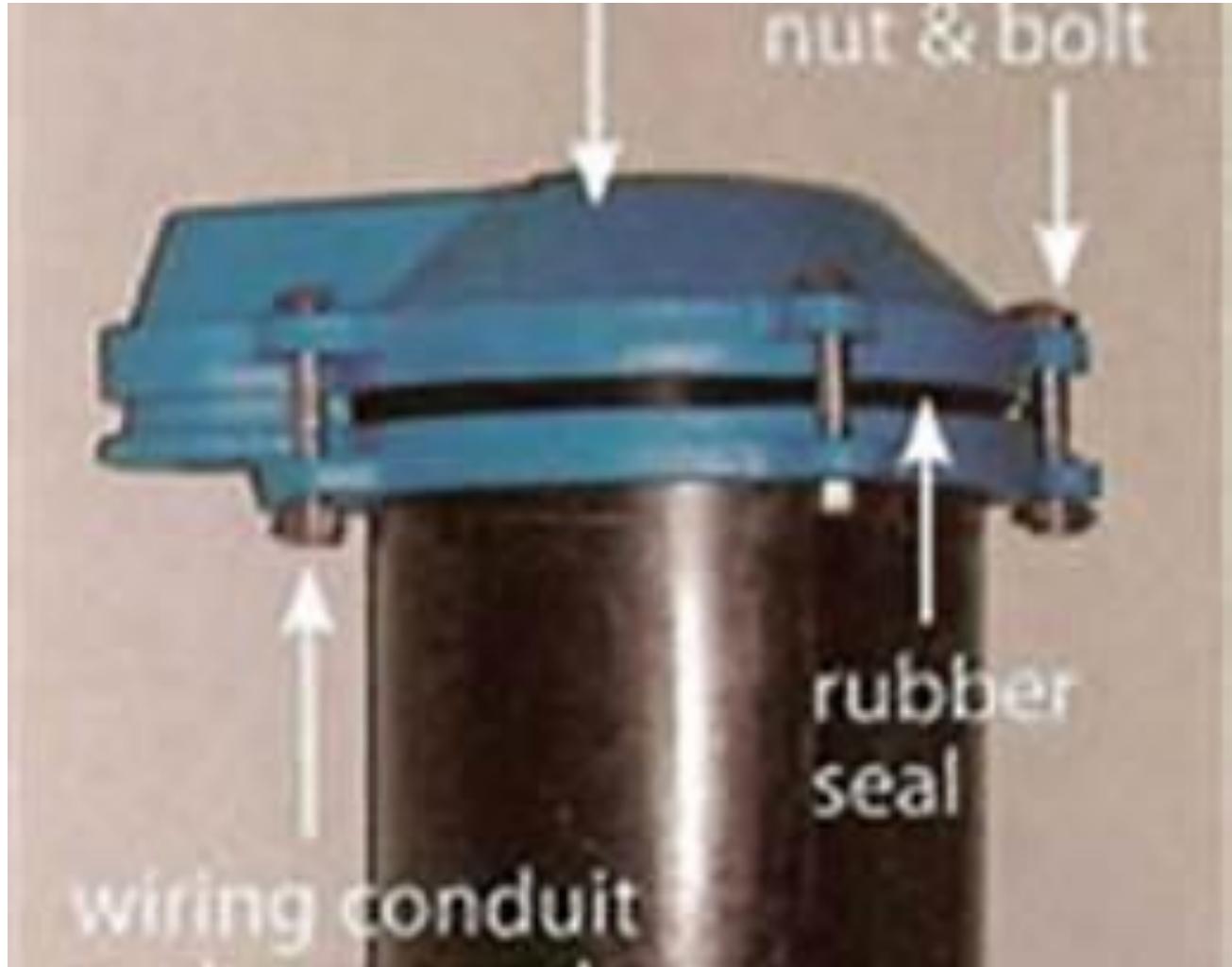


Figure 8. Typical, under-sink, reverse osmosis (RO) system components.

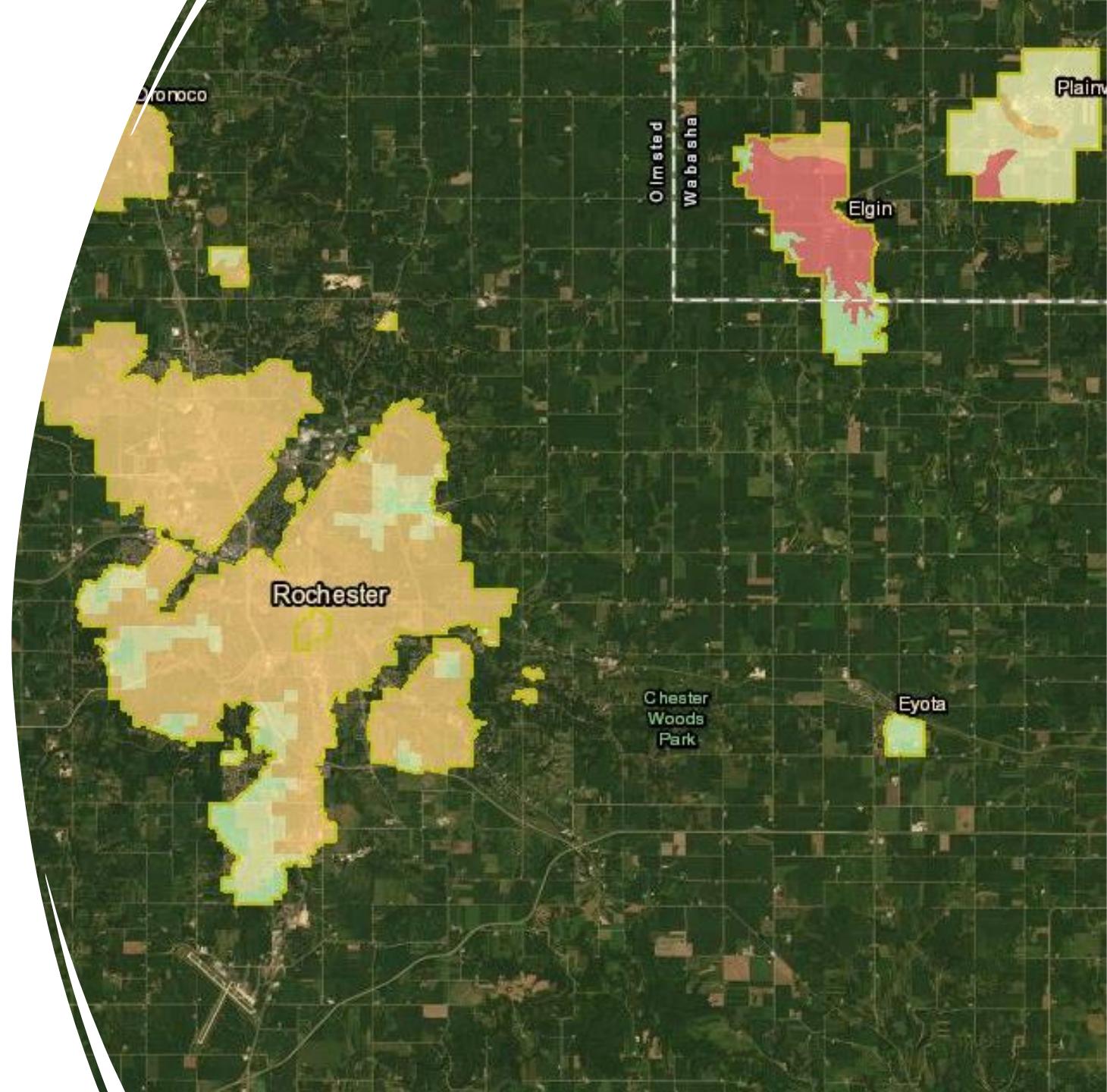
Mitigation: Maintenance and Recordkeeping.

We are developing
a Well Owners
Portfolio to allow
households to keep
records of water
testing, systems
maintenance and
repairs



Wellhead and Aquifer Protection, Restoration and Enhancement

- In Minnesota private well owners need more robust drinking water safety and protection plans.

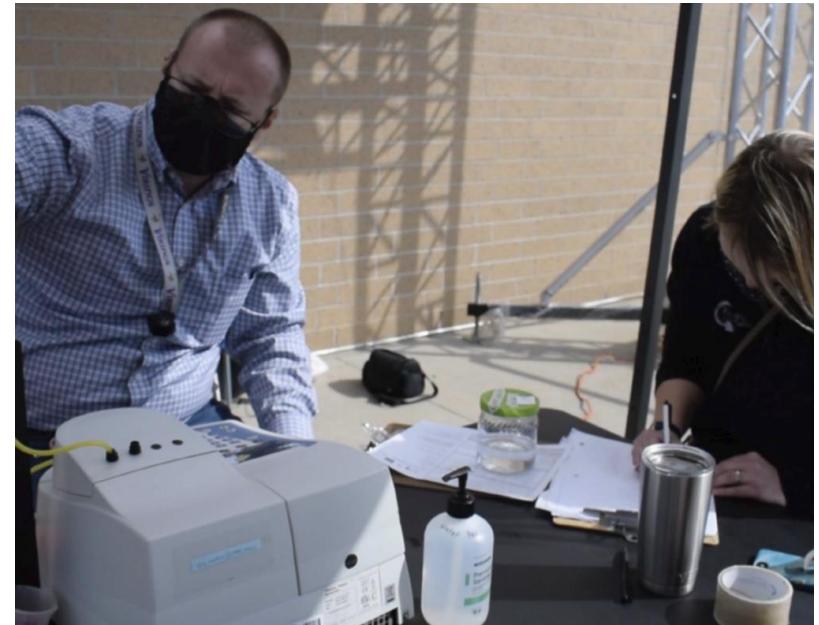


MNWOO & Partners: *Covid Safe Drive Through Nitrate/Chloride Screening Clinic*

At the Peak over 50 vehicles lined up and patiently waited for a chance to talk with water professionals about their water quality results.



Experienced Analysts and good equipment kept a smooth pace analyzing one sample a minute for 2 ½ hours.



269 Well Owners
brought 336
samples

Some nitrate
problems:

17% have nitrate
impacts > 3ppm

5% over 7 ppm

BUT

78% are grateful for
good water



The Scope is
finite the
Scale is just a
guess.



What do well owners need?

Reduce the barriers to testing.

Education and resources for private well stewardship including:

- Risk Assessment**
- Effective Water treatment**
- Source water protection**

- **The Biggest Challenges:**
 - Lack of information and resources
 - Complacency
 - Every well and water system is unique
 - Old wells and non-code wells
 - Widespread contamination

How can the State of Minnesota help?

Take a non-regulatory public health approach

- Communication and training on risk is a key.
- Meet people where they are

Establish appropriate standards

- Promote the benefit of the well code and code-complaint wells
- Communicate health risk standards



Provide programs, incentives, grants and loans

- Develop Water Safety Plan strategy
 - Define water risk managers
- Require drinking water to be addressed in County Public Health Assessments
- Statewide screening and testing
- Source water protection
- Water treatment

**“Never doubt
that a small
group of
thoughtful,
committed
citizens can
change the
world.**

**Indeed, it’s
the only thing
that ever
has.”**

*Margaret
Mead*



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