

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

# CODE REVISION UPDATES

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## 2020:

- Substantial revision
  - Updated/clarified definitions, separation distances (current & historic tables created)
  - Heat exchange drillholes moved to new section
  - Subchapter II – Well Construction/Reconstruction rewrite
  - Allow bentonite pellets as filling & sealing material for well <3” in diameter
  - Simplify requirements to install treatment for bacterial without approval
- 2020 training on County Delegation webpage

# RECENT CODE REVISIONS



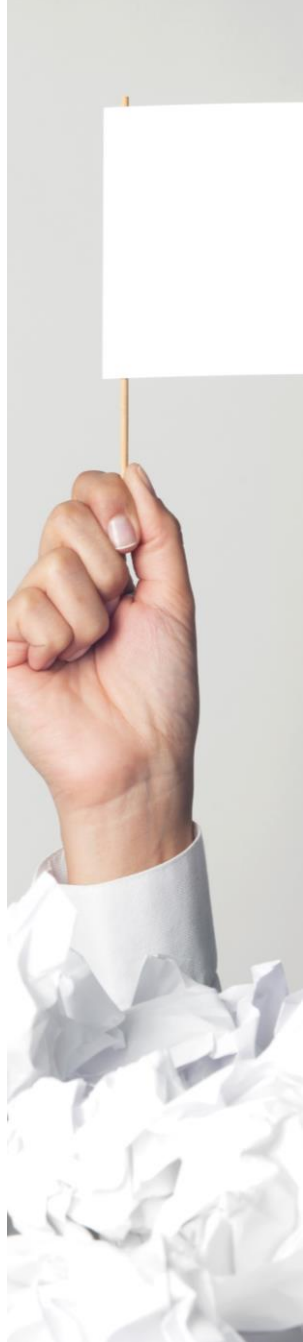
## 2022:

- Allows thermoplastic-cased wells terminating in non-crystalline bedrock (sandstone, limestone/dolomite, shale)
- Cement grout now allowed for thermoplastic-cased wells.
- Use of clamp-on and bolt-on or bolt-through pitless adapter expanded.

## 2024:

- Industry driven change allows use of Type IL cement (in addition to Type I) for grouting, filling & sealing material

# RECENT CODE REVISIONS



# DIFFERENCES TO BE AWARE OF



## “Abandonment” VS “Filling & Sealing”

- NR 812 was updated to use the phrase “Filling & Sealing”
- NR 845 still refers to “abandonment”
- Both terms refer to the same activity

## PIT:

- Below ground structure that may contain the well, pump, pressure tank, valves, etc.
- Includes pumphouses and alcoves adjoining a basement



# DEFINITIONS TO KNOW

## VALVE PIT:

- A pit that contains only piping and valves
- Does not contain pressure tanks or wells
- Needs to be watertight, not connected to a sewer
- Drained to permeable soil or the ground surface and not subject to flooding



# DEFINITIONS TO KNOW



- Refer to fact sheet on basement wells for details and compliance flowchart
- Wells constructed in a basement after April 10, 1953 or under a building that was constructed after July 1951 are not compliant unless the well is located in a walkout basement or an alcove.
- **NR 812.42(2)** - If building is constructed over a pit/alcove, it must meet basement well requirements.

# **BASEMENT WELLS**

## SCHOOL:

- Any elementary school or secondary school and any kindergarten or **day care facility**
- Does not include athletic fields, school forests, environmental centers, home-based schools, and Sunday schools
- School wells need public water approval and therefore they would **not get a county permit**



# DEFINITIONS TO KNOW



## **FLOODPLAIN, FLOODWAY & FLOODFRINGE:**

- Definitions now align with NR116 Floodplain Management

## **POWTS COMPONENTS:**

- Holding tank, mound system, etc. from POWTS definitions specified in §145.01(12)

## **SALVAGE YARD/JUNKYARD:**

- Salvage yard/junkyard – since the terms are inter-changeable, the definition was combined to reduce confusion.

## **PRIVY:**

- Defines BOTH pit privy (NOT watertight) and vault privy (watertight) as specified in (SPS 391.03(6) & (9)) and includes separate setback for each

# **DEFINITION CONSISTENCY**



## **NEW (DNR Well Notification & County Permit):**

- Newly constructed well

## **REPLACEMENT (DNR Well Notification & County Permit):**

- Newly constructed well on a property that is intended to replace an existing well. The existing well must be filled and sealed if no longer in use.

## **RECONSTRUCTION (County Permit):**

- Modifying the original construction of an existing well. Includes but is not limited to deepening, lining, installing or replacing a screen, underreaming, hydrofracturing and blasting.

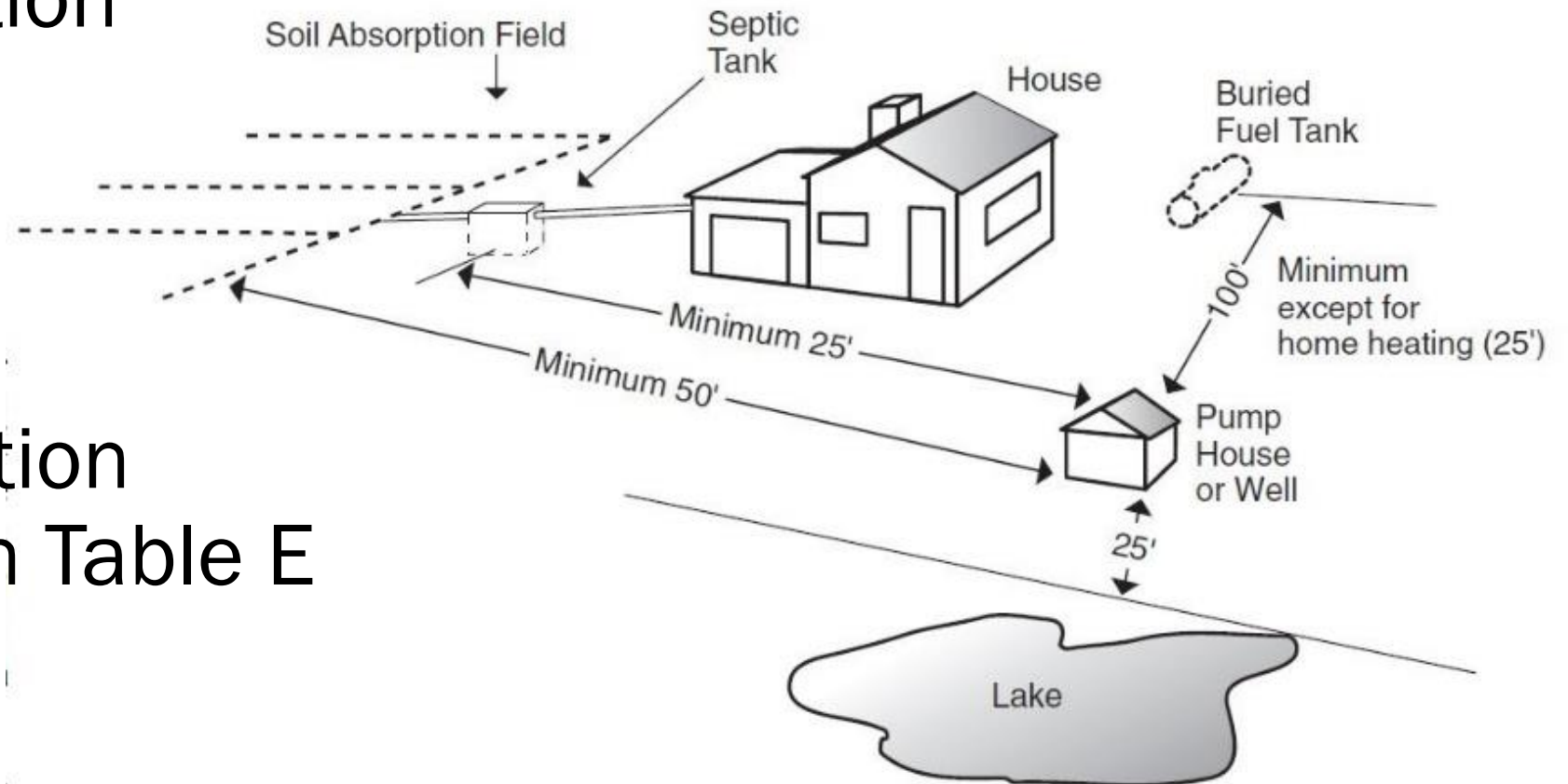
## **REHABILITATION (County Permit):**

- Includes redevelopment, chemical conditioning and physical conditioning of an existing well.

# **WELL TERMINOLOGY & PERMITS**

# WELL LOCATION & SEPARATION DISTANCES

- Table A contains only current separation distances



- Historic separation distances are in Table E

# WELL LOCATION & SEPARATION DISTANCES

## NR 812 - TABLE A

### MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN POTABLE OR NONPOTABLE WELLS, RESERVOIRS, SPRINGS AND POSSIBLE CONTAMINANT SOURCES

Source	Distance in Feet
Animal Barn or Animal Barn Pen (measured to the nearest outside edge of the building or structure)	50
Animal Shelter (not including pet shelter or pet kennel housing 5 or fewer pets)	50
Animal Yard—Includes Calf Hutch (not including pet shelter or pet kennel housing 5 or fewer pets)	50
Cemetery Grave Sites	50
Cistern	8
Coal Storage (greater than 500 tons)	1,200
Culvert, stormwater	8
Ditch-Edge of	8
Drain-Sanitary building	8
<u>Drillhole</u> used for the underground placement of any waste, surface water, or any substance as defined in s. 160.01 (8), Stats.	100
Fertilizer or Pesticide Storage Tank (any size, surface or buried) ( <u>Nonpotable wells</u> )	8
Fertilizer or Pesticide Storage Tank (any size, surface or buried) (Potable wells)	100
Fuel Oil Tank >1,500 gallons on surface or any size buried (including associated buried	100



# WELL LOCATION & SEPARATION DISTANCES

Table E – Location NR 812.42(1)(a)

**TABLE E**

**HISTORIC MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN EXISTING POTABLE OR NONPOTABLE WELLS, RESERVOIRS, SPRINGS AND POSSIBLE SOURCES OF CONTAMINATION**

Source	Prior to Oct. 1, 1975	Oct. 1, 1975 to Sept. 30, 1981	Oct. 1, 1981 to Jan 31, 1991	Feb. 1, 1991 to Sept. 30, 1994	Oct. 1, 1994 to Sept. 30, 2014	Oct. 1, 2014 to the effective date of this rule [LRB inserts date]
Absorption Unit (field), soil [See Soil Absorption Unit] (Also known as a POWTS dispersal component)	50'	50'	50'	50'	50'	50'
Agricultural crop field Note: Not a requirement—only a recommendation	None	None	None	None	None	25' recommended
Air shaft-heating/air conditioning (Vertical, Below grade)	None	None	None	None	25'	25'
Animal Barn	--	--	--	--	--	50'
Animal Barn Pen	None	25'	25'	25'	25'	--
Animal Shelter (not including small residential pet shelter or pet kennel housing 5 or fewer adult pets)	None	50'	50'	50'	50'	50'
Animal Yard—Includes Calf Hutch (but not including residential lot dog kennel enclosing 5 or fewer adult pets)	None	50'	50'	50'	50'	50'
Barn, Animal	--	--	--	--	--	50'
Barn Gutter	None	25'	25'	25'	25'	50'
Building Overhang (from centerline of well)	2'	2'	2'	2'	2'	None
Cemetery Grave Sites	None	100'	100'	50'	50'	50'
Cistern	10'	10'	10'	8'	8'	8'
Coal Storage (greater than 500 tons)	None	None	None	1,200'	1,200'	1,200'
Composting Site (See Solid Waste Processing Facility)	None	None	None	None	250'	250'
Culvert, stormwater	None	None	None	None	None	8'

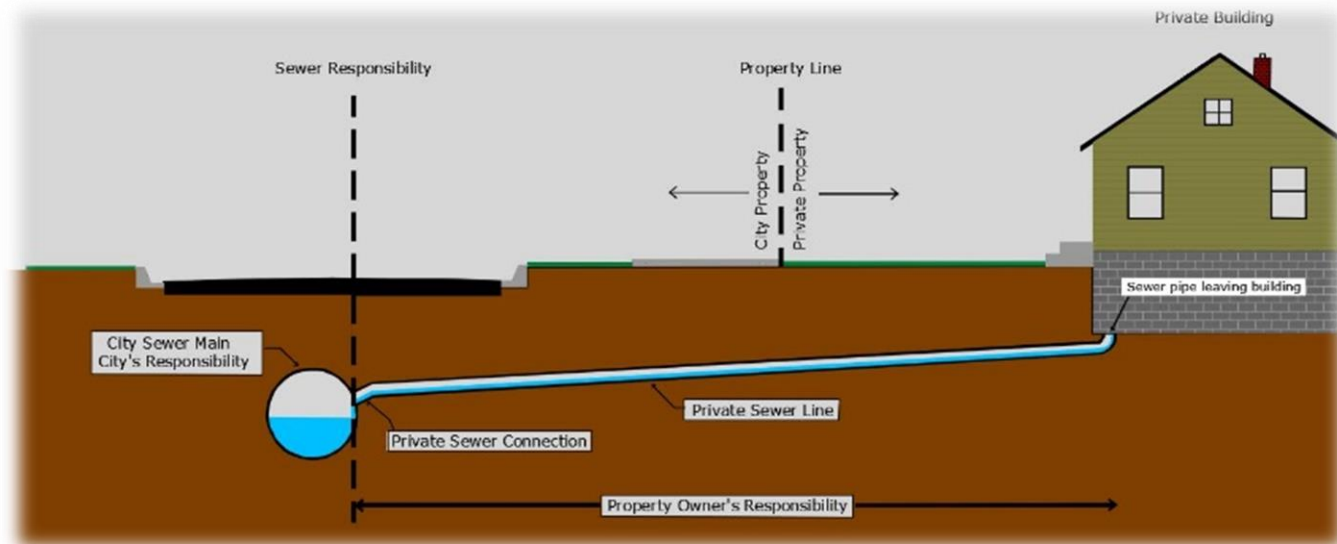
# WELL LOCATION & SEPARATION DISTANCES

## SANITARY BUILDING DRAIN

- All buried sanitary building drains have an 8-foot separation distance, regardless of pipe material. (previously 8' - 25')

## SANITARY COLLECTOR SEWER

- All sanitary collector sewers have 25-foot separation distance, regardless of pipe size, material or # of living units (previously 25' - 50')



# WELL LOCATION & SEPARATION DISTANCES

## MANURE SEWER $\leq 6"$ in diameter - 25'

- All manure sewers  $> 6"$  in diameter have a 50-foot separation distance, regardless of pipe material or pressure (previously 25' - 50')

## PRIVY - PIT - 50'

## PRIVY - VAULT - 25'

- Clarifies and recognizes vault privy as different contaminant source than pit privy.



# WELL LOCATION & SEPARATION DISTANCES

TABLE A (use for wells constructed after July 1, 2020)

## MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN POTABLE OR NONPOTABLE WELLS, RESERVOIRS, SPRINGS AND POSSIBLE CONTAMINANT SOURCES

Source	Distance in Feet
Gasoline or Other Petroleum or Liquid Product Tank — Surface (< 1,500 gallons, including any associated buried piping)	25
POWTS holding component (also known as a Holding Tank (Wastewater))	25
POWTS treatment component (Includes septic tanks, aerobic treatment units or filters)	25
POWTS dispersal component (also known as Soil Absorption Unit or Mound) < 12,000 gal/day (except for school wells) <sup>2</sup>	50
POWTS dispersal component (also known as Soil Absorption Unit or Mound) < 12,000 gal/day (school wells) <sup>2</sup>	200
POWTS dispersal component (also known as Soil Absorption Unit or Mound) ≥ 12,000 gal/day <sup>2</sup>	250
Privy – pit privy (not watertight)	50
Privy – vault privy (watertight)	25
SEWERS (Buried)	
—Manure Sewer	25
—Manure Sewer (> 6 inches in diameter)	50
—Sanitary Building Sewer	8
—Storm Sewer	8
—Sanitary Collector Sewer	25



# ONGOING CODE REVISIONS

## NR 812 & NR 146



### NR 146 – LICENSING & REGISTRATION:

- Last revision in 2016
- address prerequisite requirements for license eligibility
- provide for automated and efficient online license renewal
- allow flexibility in continuing education attendance requirements

### NR 812:

- Revisions focused on Subchapter III – Pump Installations – last substantial revision in 1991
- Update for use of current technology
- Include provisions for growing non-electric community
- Use of bentonite chips as annular space seal & casing size of existing installations

- Many steps in the rulemaking process
- Plan to begin drafting code language this summer
- Several opportunities for public participation
- Process takes about 31 months



## **ONGOING CODE REVISIONS NR 812 & NR 146**

# Drinking Water Tests for Private Wells

While many private wells provide quality water that is safe for you, your family, and pets, you should regularly test your well because it may have one or more water-quality problems. Some contaminants can be seen or tasted while others require testing to detect.

There are a few essential tests that should be performed routinely on every private well. Homeowners should routinely test their well. You may decide to test more often if your previous results were unsafe.

## Three Routine Tests for Every Well Owner

Everyone is potentially at risk from the three most common contaminants in Wisconsin well water.

### 1. Bacteria <sup>↗</sup>

Every well should be tested once a year, and when you notice a change in taste, color, or smell.

### 2. Nitrate <sup>↗</sup>

Every well should be tested once a year, and before the well will be used by a woman who is or may become pregnant.

### 3. Arsenic <sup>↗</sup>

Every well should be tested once. If arsenic was present in previous tests, you should test once a year.



## Well Owners Responsibilities

Private well owners are responsible for testing and maintaining their well. Unlike public water systems, private well owners are not required to regularly test their wells or correct water-quality problems. It is your choice to decide which test to do and actions to take.

## Certified Labs

Find a list of certified labs across the state by:

- Going to [dnr.wi.gov](https://dnr.wi.gov) and searching "Accredited Laboratories" or
- Contacting your local health department.

# Additional Testing for Private Well Owners

You may consider additional testing to look for:

- Naturally occurring contaminants in the rock and soil that may enter your well.
- Human caused contaminants from land-use, your plumbing materials, or other sources of pollution near your well.

## Useful Links

**Health information:**

[dhs.wisconsin.gov/water/drinking.htm](https://dhs.wisconsin.gov/water/drinking.htm)

**Identify water symptoms:**

[dnr.wi.gov/topic/DrinkingWater/IdentifySymptoms.html](https://dnr.wi.gov/topic/DrinkingWater/IdentifySymptoms.html)

**Private well data:**

[uwsp.edu/cnr-ap/watershed/Pages/WellWaterViewer.aspx](https://uwsp.edu/cnr-ap/watershed/Pages/WellWaterViewer.aspx)

**Agricultural chemicals in groundwater:**

[datcp.wi.gov/Pages/Programs\\_Services/SurfaceGroundwaterMonitoring.aspx](https://datcp.wi.gov/Pages/Programs_Services/SurfaceGroundwaterMonitoring.aspx)

**Download this factsheet:**

[dnr.wi.gov/files/PDF/pubs/DG/DG0023.pdf](https://dnr.wi.gov/files/PDF/pubs/DG/DG0023.pdf)

## Natural



### Manganese [↗](#)

If you notice brown or black staining in your home or black sediment in your water, test once for manganese.



### Strontium [↗](#)

Consider testing for strontium if you live in the eastern or northern part of the state. Test twice over a two-year period in two different seasons, fall and spring being best.



### Fluoride [↗](#)

Test for fluoride when you have a baby or when you move into a home with a well. Your dentist and pediatrician will use this information to decide how much additional fluoride to recommend.

## Human



### Pesticides [↗](#)

Consider this test if your home is within ¼ mile of agricultural fields or areas where pesticides are manufactured, stored, or mixed.



### Lead and Copper [↗](#)

Test once every five years or if the water will be used by a pregnant woman or baby. Lead and copper may be in your water from the plumbing materials used in your home.



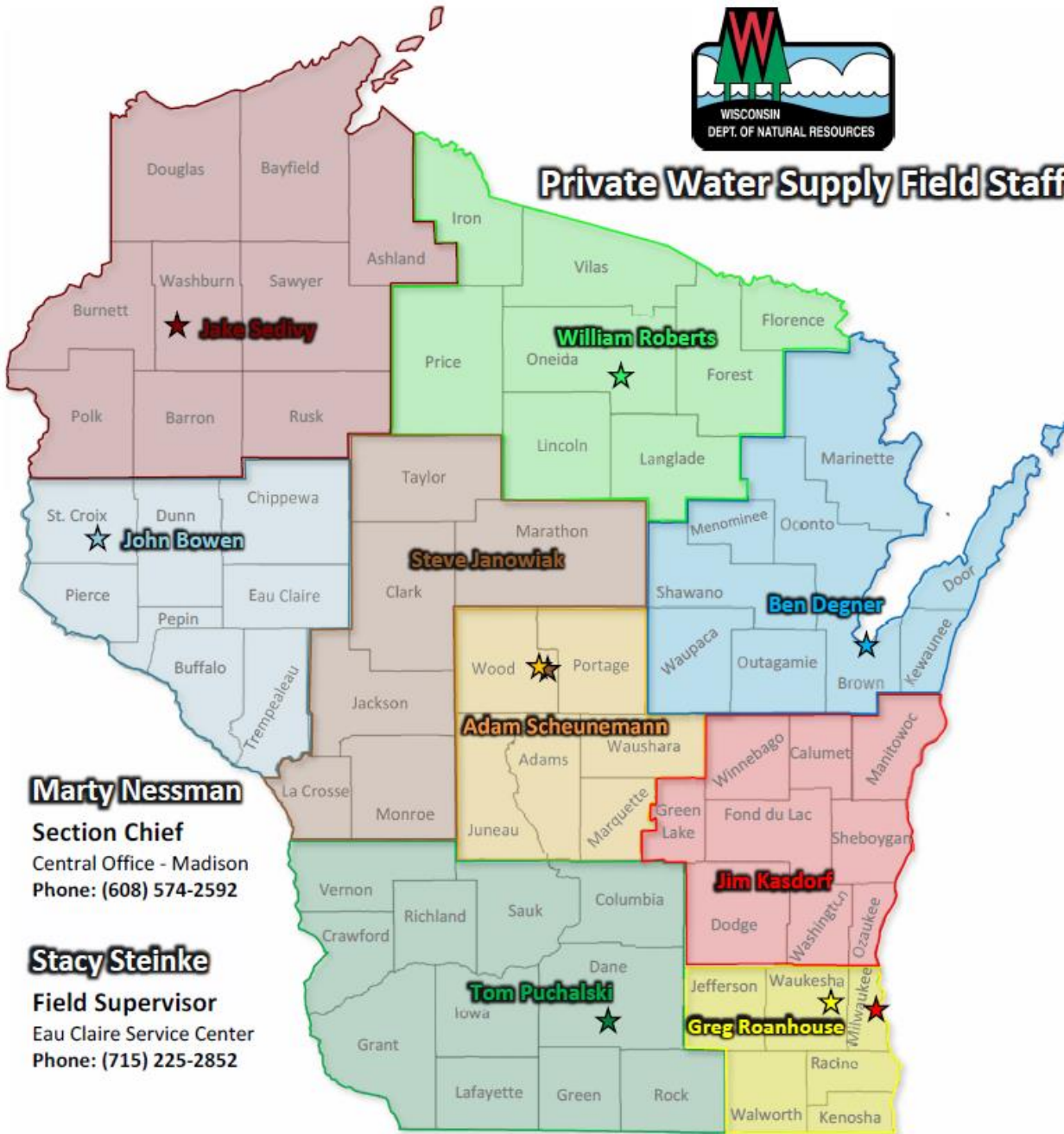
### VOCs [↗](#)

Volatile organic compounds (VOCs), testing is recommended for homes within ¼ mile of a landfill, industrial site, gas station or other underground tank, and especially if you smell chemical or fuel odors in the home.

# PRIVATE WATER PROGRAM



## Private Water Supply Field Staff



### Marty Nessman

Section Chief  
Central Office - Madison  
Phone: (608) 574-2592

### Stacy Steinke

Field Supervisor  
Eau Claire Service Center  
Phone: (715) 225-2852

## STATEWIDE COORDINATION

<b>Sara Fry</b> ( <i>Green Bay</i> ) Reporting & Enforcement Coord.	920-360-2688
<b>Bob Gundrum</b> ( <i>Plymouth</i> ) Licensing Coordinator	920-946-1149
<b>Aaron Kent</b> ( <i>Eau Claire</i> ) Hydrogeologist Program Coord.	715-492-3751

## FIELD STAFF

<b>Steve Janowiak</b> ( <i>Wisconsin Rapids</i> ) Well Contamination and Response	608-792-4672
<b>Adam Scheunemann</b> ( <i>Wisconsin Rapids</i> ) Field Enforcement and Inspections	715-299-0587
<b>Greg Roanhouse</b> ( <i>Waukesha</i> ) Existing Installations & Property Transfer Well Inspections	262-822-7730
<b>Jim Kasdorf</b> ( <i>Milwaukee</i> ) Approvals, Variances, & Complex Well/Drillhole Situations	715-579-9729
<b>Jake Sedivy</b> ( <i>Spooner</i> )	715-416-3331
<b>John Bowen</b> ( <i>Baldwin</i> )	715-797-2004
<b>Tom Puchalski</b> ( <i>Fitchburg</i> )	608-386-8777
<b>William Roberts</b> ( <i>Rhinelander</i> )	715-360-7297
<b>Ben Degner</b> ( <i>Green Bay</i> )	608-419-7637

# CONNECT WITH US

## DNR Private Water Section

<https://dnr.wisconsin.gov/topic/Wells>

[DNRWELLREPORT@wisconsin.gov](mailto:DNRWELLREPORT@wisconsin.gov)



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"WILD WISCONSIN:  
OFF THE RECORD"