

# DNR Data Systems

Steve Janowiak

County Delegation 2024 Sessions

# Well Driller Viewer (WDV) - Intro

Wisconsin Department of Natural Resources  
**Well Driller Viewer**

Search... Sign in

Tools Measuring & Drawing

Home Layers Legend Full Extent Pan Zoom In Zoom Out Identify Plot Coordinates Print Export Share Feedback

Basic Tools Navigation Other Tools & Actions

WELL DRILLER VIEWER Search By

The Well Driller Viewer provides a visual map view of specific setback, construction and approval information to assist well drillers in planning projects and meeting requirements of [NR 812, Wis. Adm. Code](#).

Learn about potential issues such as nearby landfills, remediation sites, dual aquifer or special casing areas. Read the results that pop-up in the middle of the screen to understand construction requirements, and click on links to get application forms or more information.

Please contact a [DNR Private Water Supply Specialist](#) for questions regarding the data or other private well information. More information may also be found on the [Wisconsin DNR Well](#) page.

**ZOOM IN AND SEARCH METHODS:**

- Double-click on the map
- Click on the blue Search By button
- Choose the Zoom In+ tool bar button and draw a box
- Zoom in with your fingers on a tablet or phone.

**DATABASE INFORMATION**

- [LANDFILL WITH 1200 FOOT BUFFER](#)
- [DUAL AQUIFER / MAQUOKETA SHALE FORMATION DATA](#)
- [WELL CONSTRUCTION REPORTS](#)
- [GROUNDWATER PROTECTION FEATURES](#)
- [PARCEL DATA](#)
- [REMEDIATION SITE INFORMATION](#)

WELL DRILLER VIEWER Layers

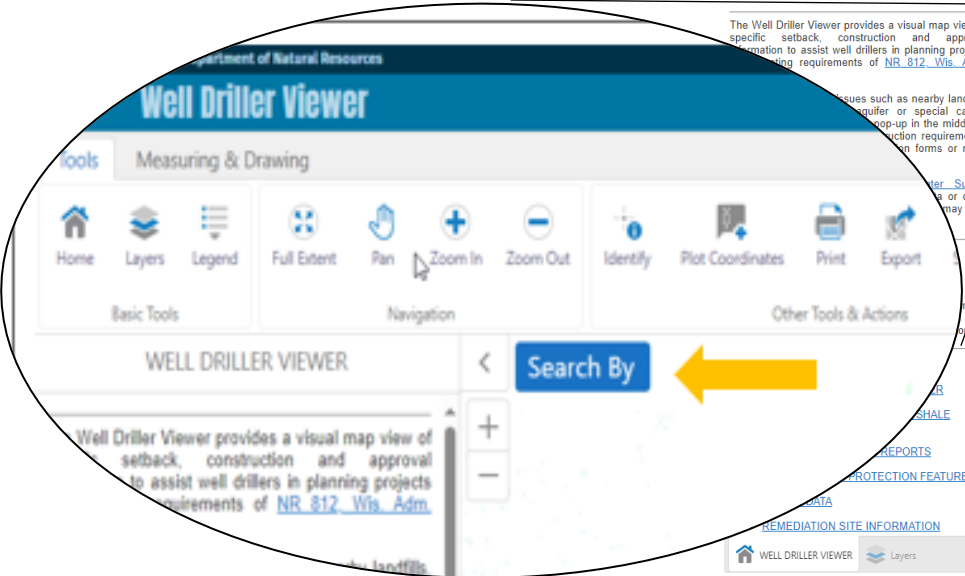
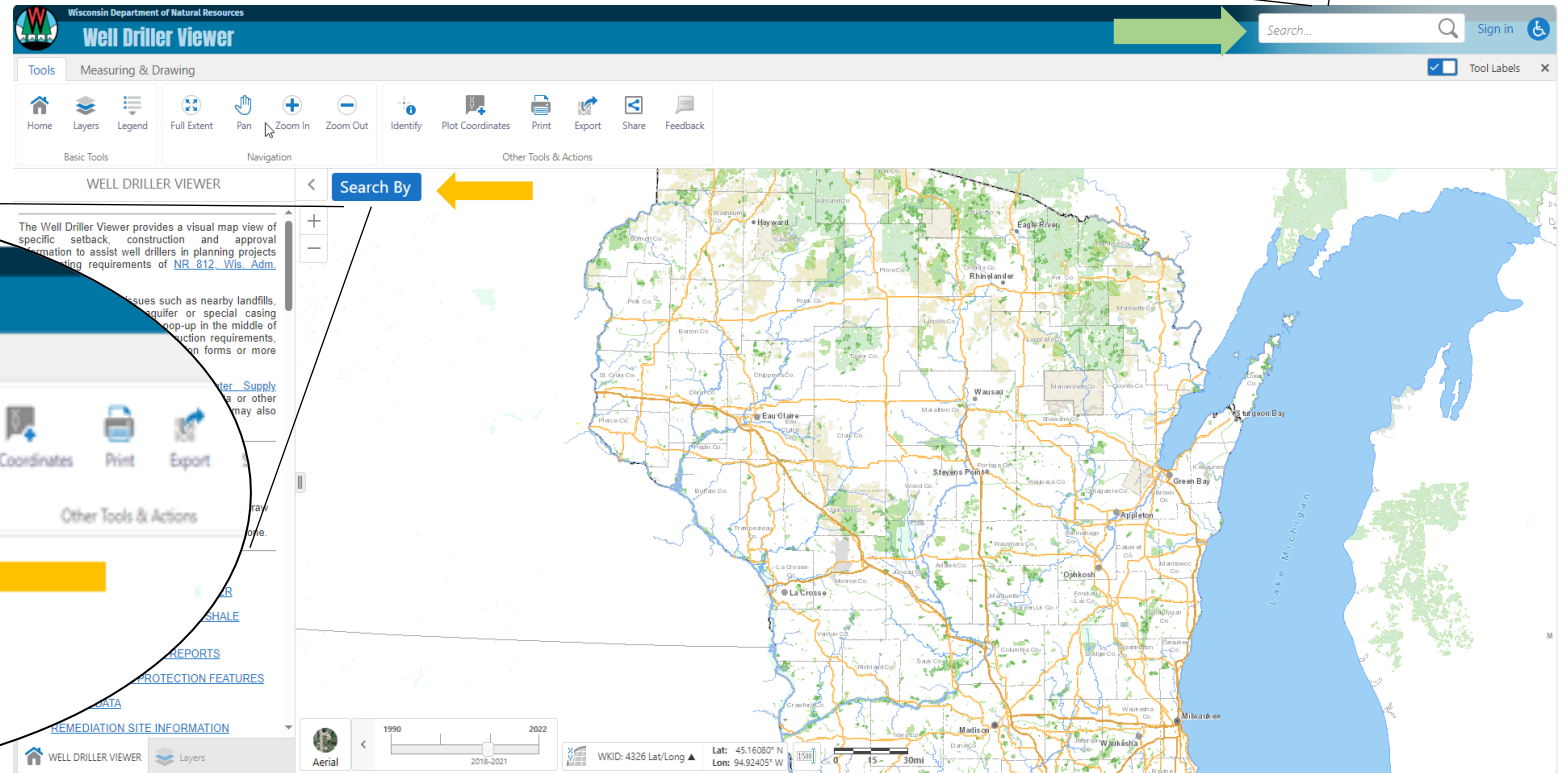
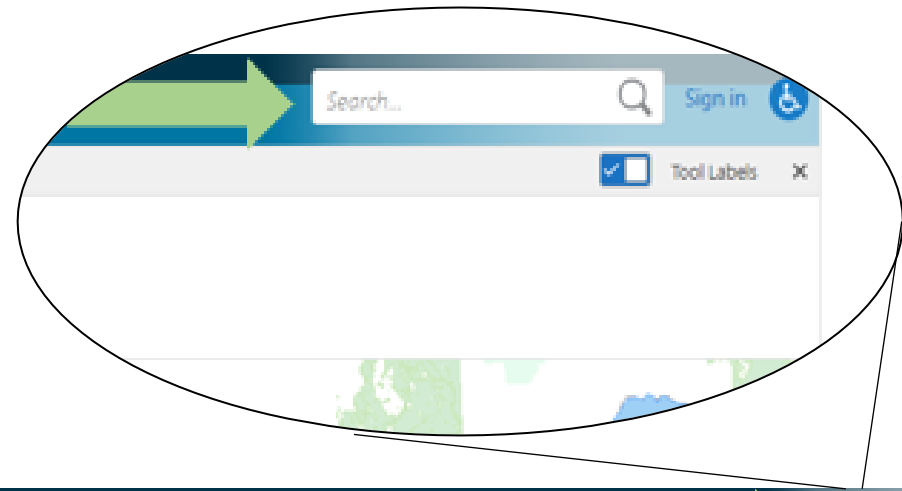
Aerial

1990 2018-2021 2022

WKID: 4326 Lat/Long Lat: 45.16080° N Lon: 94.92405° W

0 15 30mi

# WDV-Search Options



# WDV – Stacked Well Icons

The image shows a screenshot of a web application interface for well data. A search bar at the top left contains the text "Well: FT853". Below it, a popup window displays the following information:

- ☆ Well: FT853
- Well: FT853
- Well Address: 24TH LN
- Muni: TOWN OF SPRINGWATER
- Constructor: LARRY L JENKS
- Well Depth (ft) : 75
- Casing Depth (ft): 71
- Static Water Depth (ft): 45 FEET BELOW GROUND SURFACE
- Location Method: PLSS QUARTER-QUARTER SECTION CENTROID

Below the text are links for "Well Construction Report", "Well Sample Data if available", "Add to Results", and "View Additional Details".

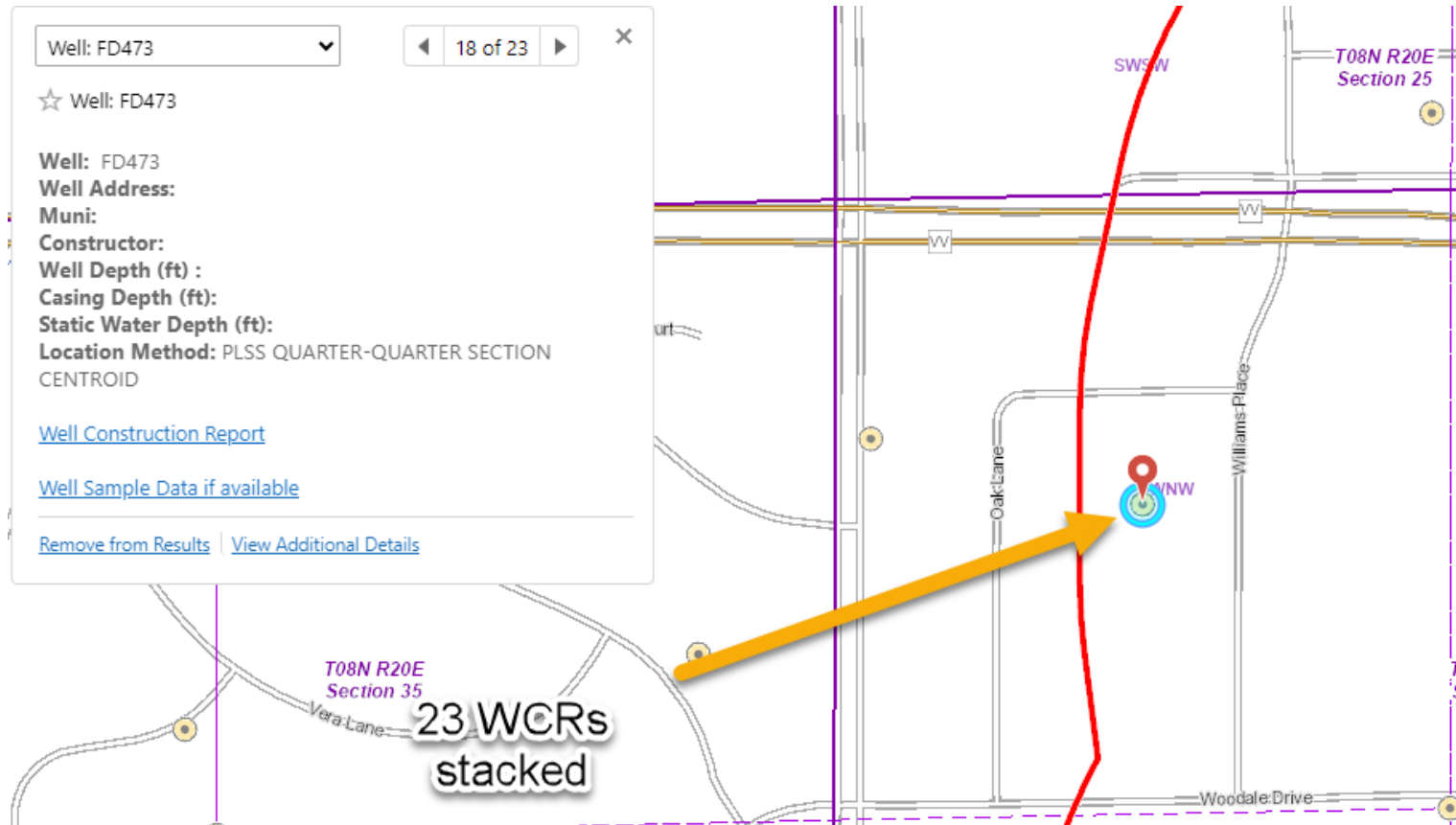
The background is a map with a purple grid. A red location pin is placed on a well icon, which is highlighted with a blue circle. An orange arrow points from the "1 of 2" indicator in the popup to this well icon. Another orange arrow points from the text "Well is in middle of grid" to the same well icon. A third orange arrow points from the text "Note there are two wells associated with the selected point" to a cluster of well icons in the upper right quadrant of the map.

Text annotations on the map include:

- "Note there are two wells associated with the selected point" (yellow text with a drop shadow)
- "Well is in middle of grid" (yellow text with a drop shadow)

Map grid labels include "22", "24", "29", "32", "33", and "T20N R11E".

# WDV – Inventoried Wells & Sample Results

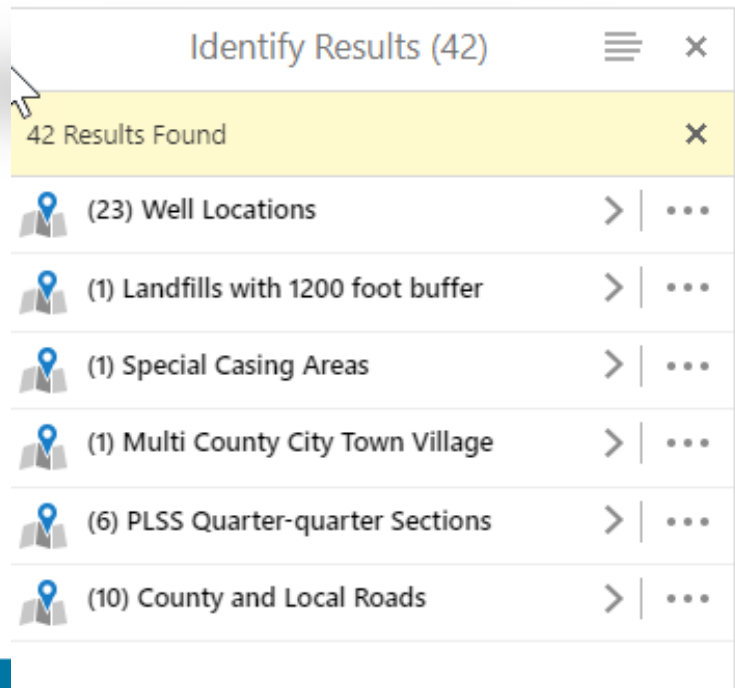
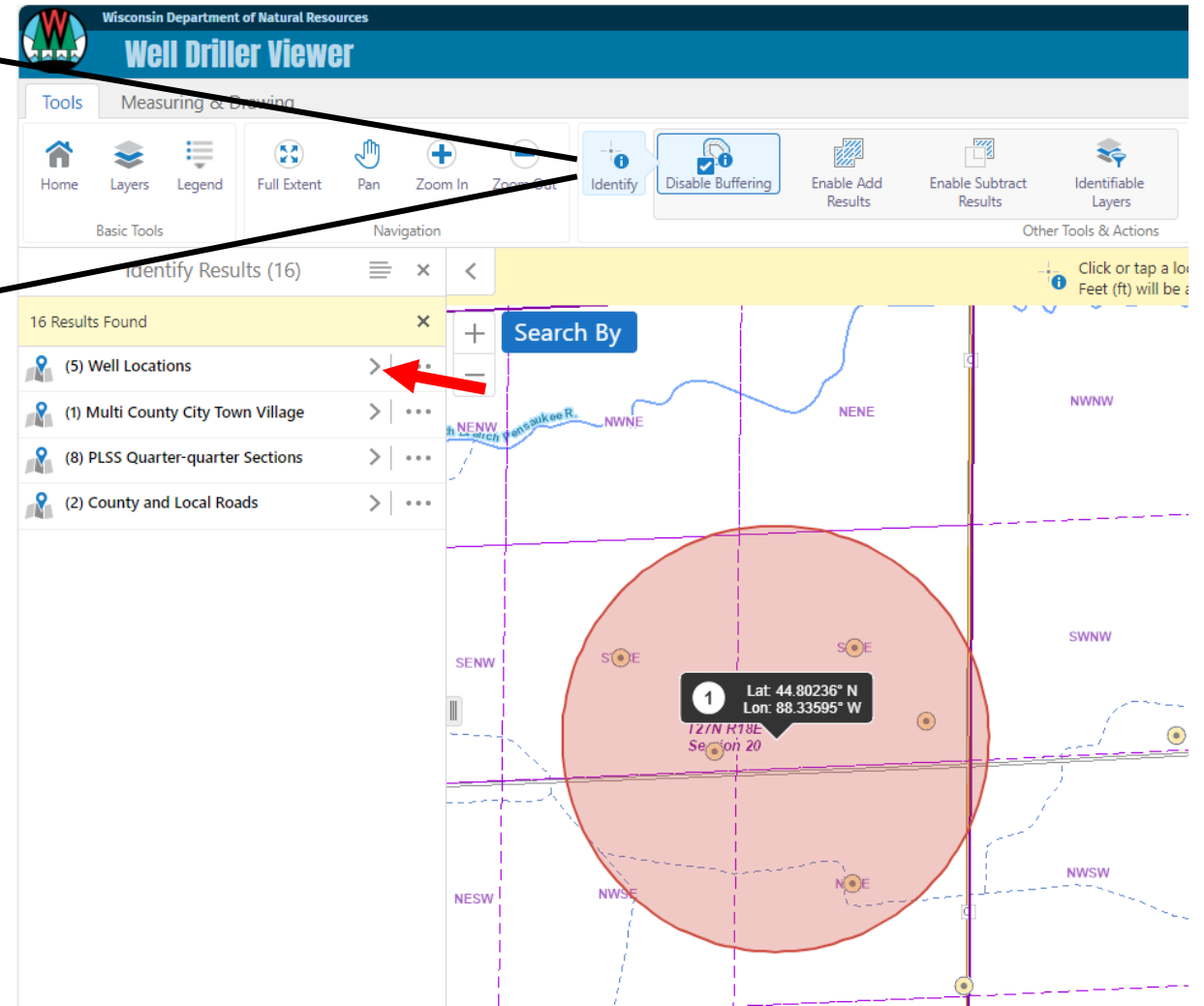
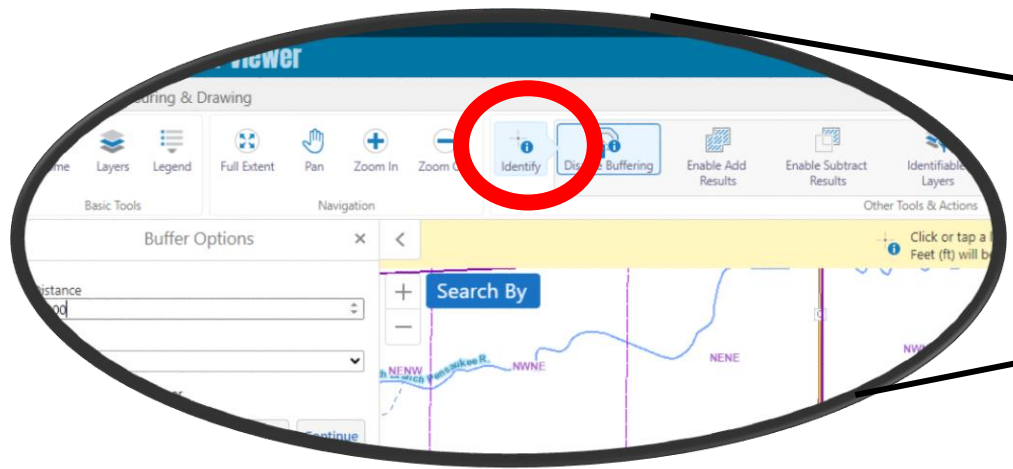


**Note: This well was inventoried. A well construction report was not submitted.**

Well Depth:

Bedrock Depth:

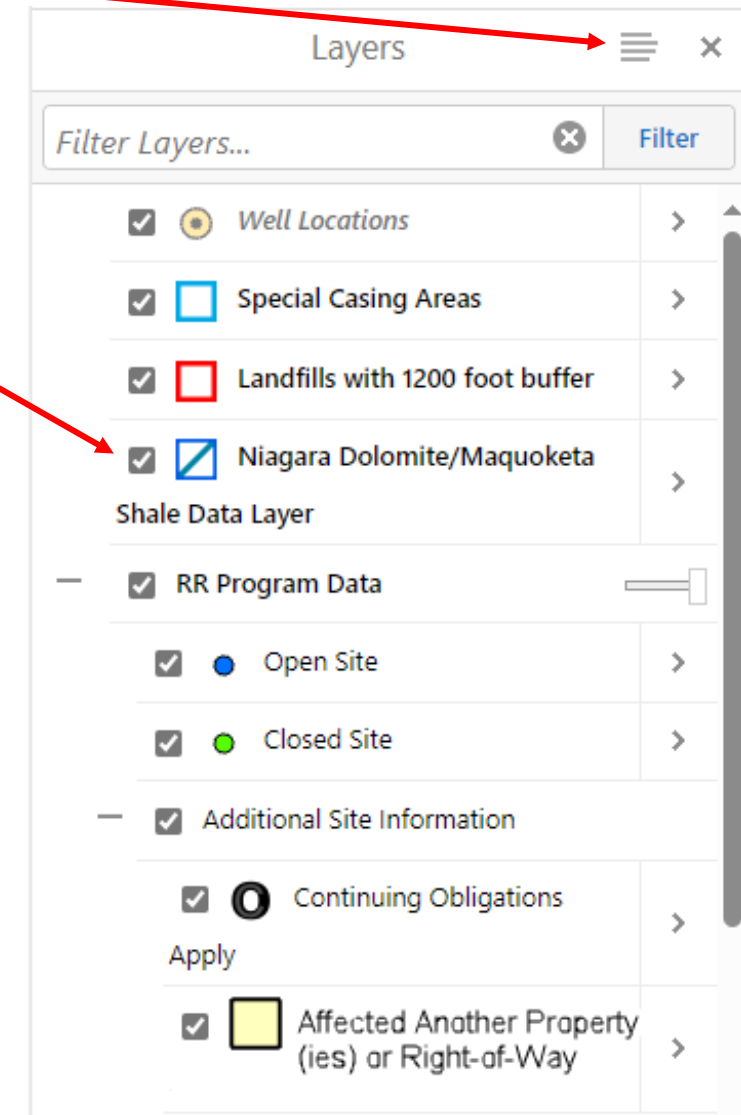
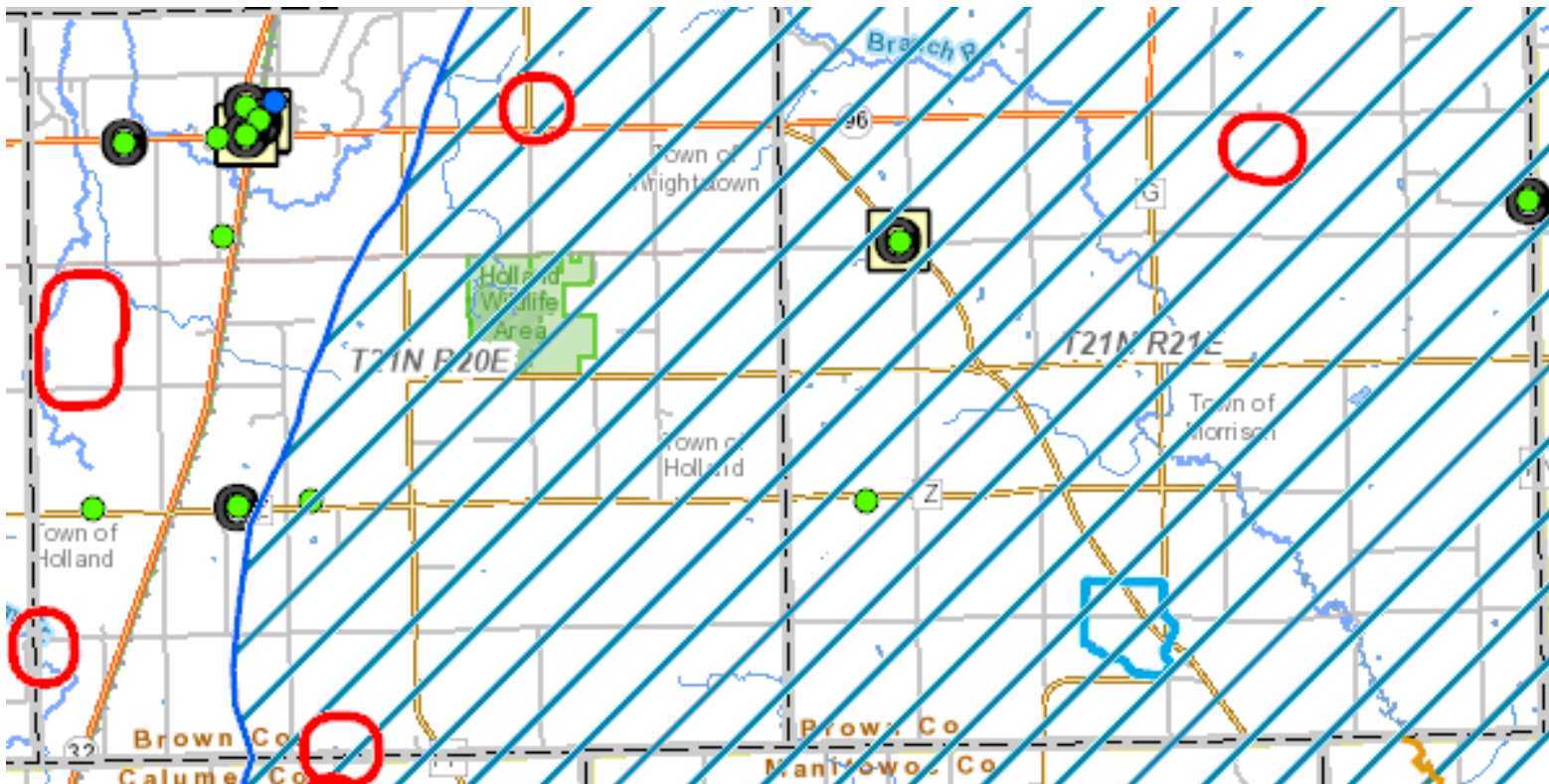
# WDV – Buffers & Nearby WCRs



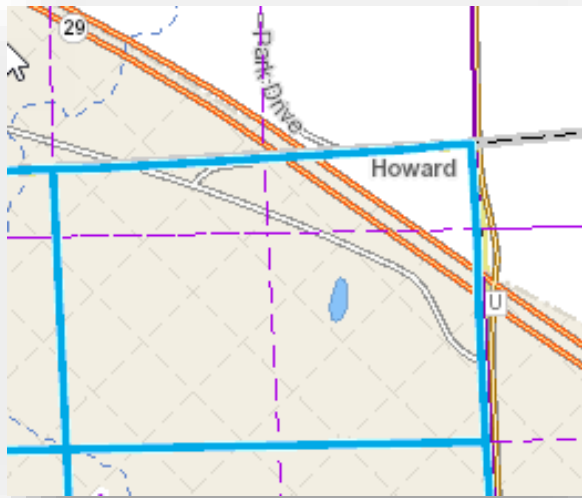
# WDV - Layers

The stacked order of the layers can be altered.

Layers can be turned on/off by user to reduce on-screen clutter

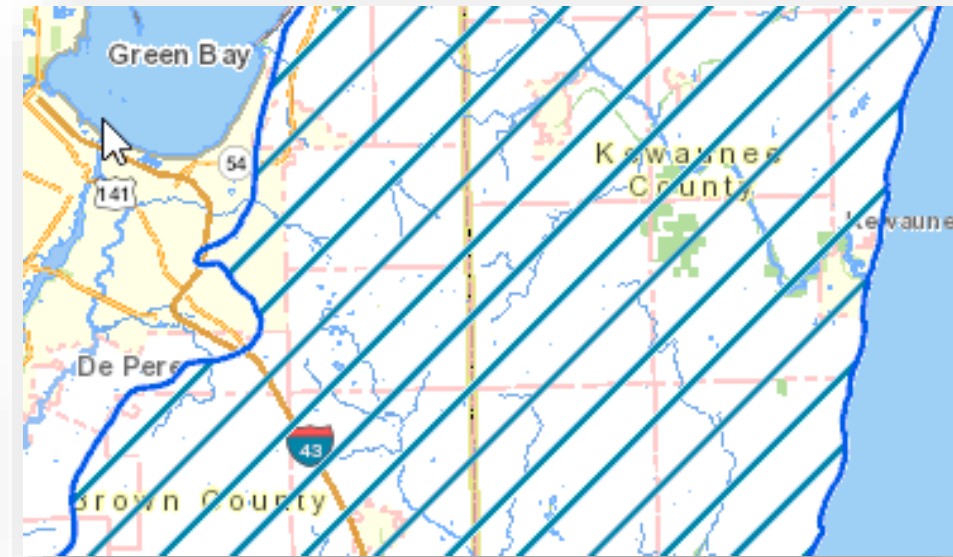
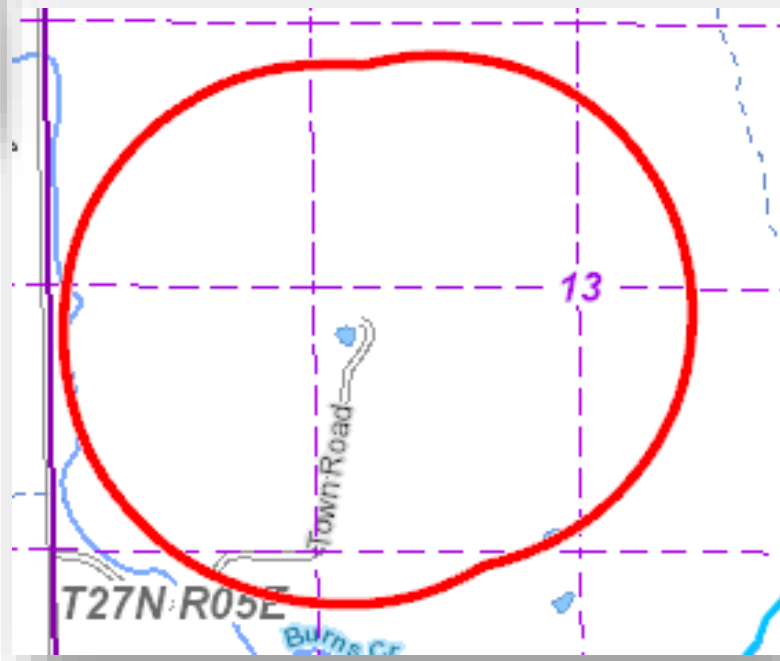


# WDV - LAYERS



Special Well Casing Depth Areas (SWCDA)

1200ft Landfill Buffers



Niagara Dolomite/Maquoketa Shale layer



# WDV - SPECIAL WELL CASING DEPTH AREAS

☆ Special Casing Area: Special well casing depth area for Outagamie and Winnebago counties

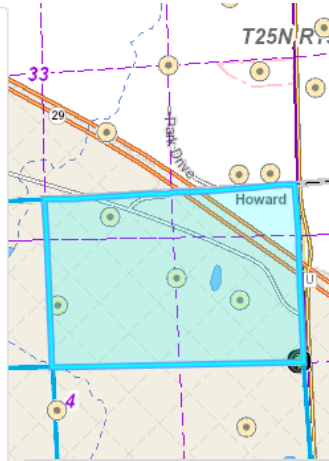
Location is in a Special Well Casing Depth Area – well must meet special well construction requirements.

Requirements: Required

Option A - Galena-Platteville Dolomite Aquifer wells no deeper than 108 feet.

Option B - A well cased and cement-grouted to the Cambrian Sandstone to the depth of at least 310 feet.

[Add to Results](#) | [View Additional Details](#)

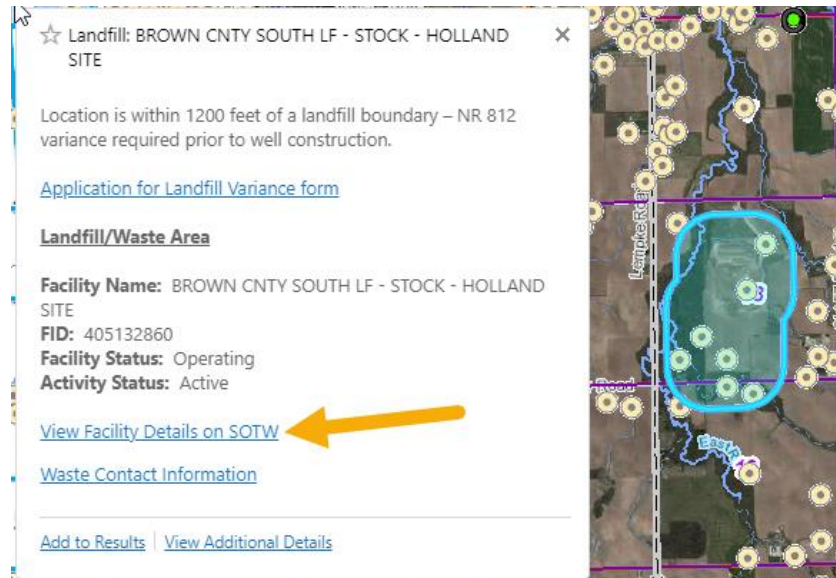


## BUREAU OF DRINKING WATER AND GROUNDWATER SPECIAL WELL CASING DEPTH AREAS

[authorized by s. NR 812.12(3)]

COUNTY	LOCATION	CONTAMINANT	CASING REQUIREMENTS
Brown 2/25/1988 Area 1	Town of Ledgeview (Scrays Hill) T23N, R21E - Section 32 - SW¼ - N½ of the SE¼ - S½ of the NE¼	VOCs	Contact DNR Northeast Region Office for required approval
Brown 11/11/2019 Area 117	Town of Humboldt T23 R22E Section 11: SW ¼ of SE ¼; SE ¼ of SE ¼ Section 12: SW ¼ of SW ¼	Livestock Waste	<ol style="list-style-type: none"> <li>1. An upper enlarged drillhole and casing pipe must extend to a minimum of 140 feet below ground surface.</li> <li>2. The annular space must be sealed with neat cement grout which must be placed using the Bradenhead method or Grout Shoe method of grouting in a manner consistent with the requirements of s. NR812.20 Wis. Adm. Code.</li> <li>3. The cement grout must have a slurry density of at least 15.2 lbs. /gallon. The grout density shall be measured with a mud balance at the grout pump hopper before being pumped into the annular space. The grout shall flow at the surface with the same density and consistency as the grout being pumped into the annular space.</li> <li>4. The grout must be allowed to set for 24 hours before construction on the lower borehole can begin.</li> </ol>

# WDV- Finding Info on LF



Clicking within the Landfill boundary opens a popup

Clicking “View Facility Details on SOTW” will open a new webpage with detailed information about the landfill.

Wisconsin

## WDNR SHWIMS on the Web

Navigation: [SOTW Home](#) >> [Advanced Search](#) >> [Search Results](#) >> Location Detail

### BROWN CNTY SOUTH LF - STOCK - HOLLAND SITE

**Facility Name**

[HELP](#)

General Information				
<b>Facility Name</b>		<b>County</b>	<b>WDNR Region</b>	
BROWN CNTY SOUTH LF - STOCK - HOLLAND SITE		BROWN	NORTHEAST REGION	
<b>Facility Status</b>	<b>FID</b>	<b>EPA ID</b>	<b>SIC Code</b>	<b>NAICS Code</b>
OPERATING	405132860	NONE	NONE	NONE
<b>Physical Address</b> <a href="#">Find on Google Maps</a> <a href="#">Get Directions</a>		<b>Municipality</b>	<b>State</b>	<b>Zip</b>
1258 COUNTY RD IL		HOLLAND	WI	54126
<b>Mailing Address</b>		<b>City</b>	<b>State</b>	<b>Zip</b>
2561 S BROADWAY		GREEN BAY	WI	54304
<b>Facility Owner Type</b>	<b>Public Land Survey System Desc.</b>		<b>Latitude and Longitude</b>	
COUNTY	NOT AVAILABLE		44° 17' 17.51" -88° 7' 24.6756"	

Facility Owner(s)	
BROWN COUNTY 2561 S BROADWAY GREEN BAY, WI 54304	

Waste Management Activities at this Location		
Activity Type	Activity Status	License No.
LANDFILL > 500,000 CU YD	ACTIVE	3565

Other Activities at this Location	
Activity Number and Name	Type/Status
09-05-582095 BCSL - TCE/MC	NO ACTION REQUIRED



The Official Internet site for the Wisconsin Department of Natural Resources  
 101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

# WDV-RR Site Changes Policy Update



Legal Opinion on NR 812.09(4)(w) clarified that approval is needed for source properties as well as off-site properties that have been impacted.

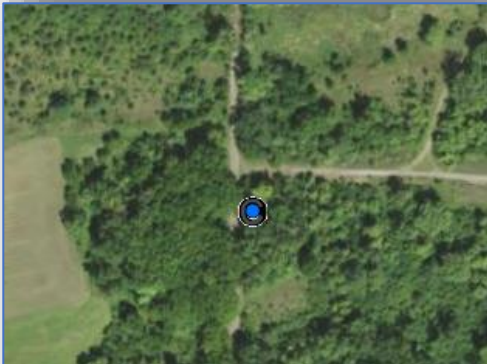
(w) The construction, reconstruction, or replacement of a well or heat exchange drillhole on a property identified by the department as having residual contamination and continuing obligations under s. [292.12](#), Stats., except those actions specified in s. [281.34 \(2g\)](#), Stats.

**Note:** Properties that are identified by the department as having residual contamination and continuing obligations can be found by searching the Wisconsin Remediation and Redevelopment Database which is available on the department's website at [dnr.wi.gov](http://dnr.wi.gov), search "WRRD."

# RR SITES ICONS – SITUATIONS & APPROVAL REQUIREMENTS



**OPEN SITES:** Contamination identified, ongoing investigation



Wells or drillholes on an open site **always** require prior approval.



In some cases, wells or drillholes on nearby properties may need approval too.



**CLOSED SITES:** Hazardous substance discharge cleanup occurred

Closed site



Closed site with Continuing Obligations



Closed Site Affected Another Property(ies) or Right-of-Way:



**Affected by Contamination from Another Property\*:**

\*This layer will soon be added to WDV

# RR SITE – POLICY CHANGE

Approval required for new, replaced, or reconstructed wells located on properties identified with continuing obligations.



**Affected by Contamination from Another Property\*:**

Prior approval needed for on site drilling.

\*This layer will soon be added to WDV

**NEW:** Approval will be required on off-site properties identified as being impacted.

# WDV- Finding Info on RR Sites

☆ Closed Remediation Site

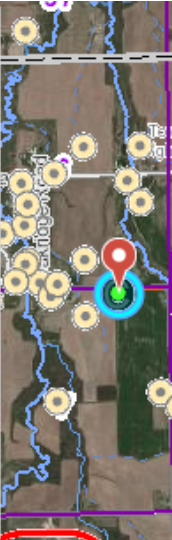
**DEYO PROPERTY - BULK PLT**  
**BRRTS #: 0205257341**  
**DNR Facility ID #: 405153430**  
**Address: 1336 Day St, Wrightstown Tn**

Location is on a property that is listed on the GIS Registry of closed remediation sites – NR 812 approval required prior to well construction or reconstruction.

[GIS Registry Site Well Approval Application](#)

[More Details - BRRTS on the Web](#)

[Add to Results](#) | [View Additional Details](#)



Additional information to be added to pop ups to include start/end dates.

**ENVIRONMENTAL CLEANUP & BROWNFIELDS REDEVELOPMENT**  
**BRRTS ON THE WEB**

Home >> SEARCH >> ACTIVITY

Click the Location Name or FID below to view the Location Details page. If additional Activities are present at this location, they may be accessed from Location Details.

**ACTIVITY DETAILS**

\*\*\* CONTINUING OBLIGATIONS APPLY \*\*\*

Continuing obligations apply to one or more properties due to remaining contamination. For information specific to the continuing obligations, review the documentation below. Before constructing or reconstructing a water supply well, you need to contact DNR for approval of well construction specifications.

02-05-257341 DEYO PROPERTY - BULK PLT

Status	Activity Type	Jurisdiction		
<b>CLOSED</b>	ERP	DNR RR		
Location Name		County	DNR Region	
<b>DEYO BULK PLT</b>		BROWN	NORTHEAST	
Address			Municipality	
1336 DAY ST			WRIGHTSTOWN TN	
PLSS Description	Latitude (WGS84)	Longitude (WGS84)	Google Maps	RR Sites Map
NE 1/4 of the NE 1/4 of Sec 07, T21N, R20E	44.313087	-88.1152872	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>
Additional Activity Details				Acres
				UNKNOWN
Facility ID	PECFA No.	EPA ID	Start Date	End Date
405153430	54126-9756-36		2000-08-08	2003-05-22

Substances			
Substance	Type	Amt Released	Units
Diesel Fuel	Petroleum		
Gasoline - Unleaded and Leaded	Petroleum		

Toward the bottom of BRRTS on the Web page, there should be a table showing the Substances involved in the remediation project.

# Well Driller Viewer – On a Mobile Device



Download ArcGIS Field Maps from



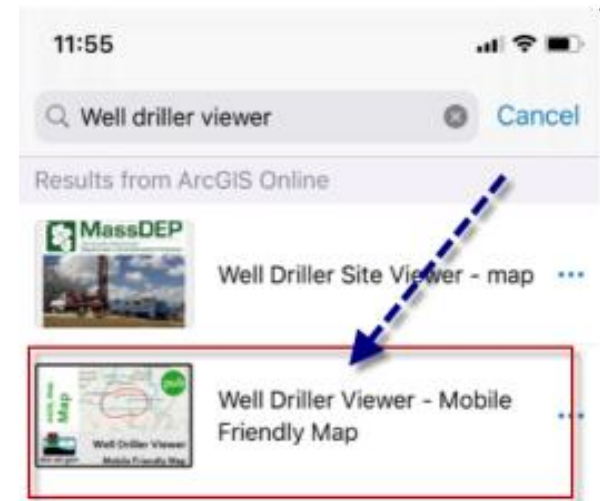
App Store



Google Play

Play Store

ArcGIS Field Maps:  
Skip Sign In  
Search “Well driller viewer”

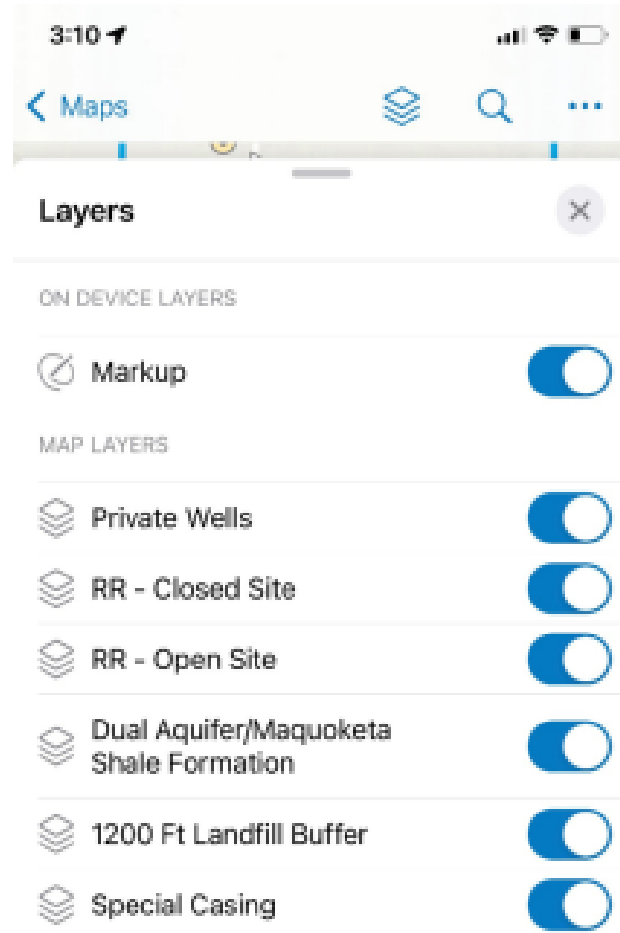


# Well Driller Viewer – On a Mobile Device



Search by address, business name, municipality, or latitude/longitude (in Decimal Degrees).

The arrow in the upper right of the map allows the app to geolocate your position.



Many of the layers from the full desktop version are available in the mobile version.



# DNR Fact Sheets

The screenshot shows the Wisconsin DNR website interface. At the top left is the Wisconsin Department of Natural Resources logo. The navigation bar includes links for HUNTING, FISHING, PARKS, CLIMATE, and ENVIRONMENT. The breadcrumb trail reads » TOPIC » WELLS. The main heading is 'INFORMATION FOR DELEGATED COUNTIES'. Below this is a paragraph about the well delegation program and another paragraph about county ordinance administration. A blue 'Open all' button is present. A dark blue sidebar menu contains the following items: 'County delegation program overview', 'How to become a delegated county', 'Delegation level responsibilities', 'Useful Forms and Applications', and 'Well Casing Heights Fact Sheet and Flow Chart [PDF]'. A large blue callout box is overlaid on the right side of the page, containing the text 'Level 1 resources - well location' at the top. Below this, it lists 'Well driller viewer' with a description and three links: 'Well Driller Viewer', 'How to Use the Well Driller Viewer [PDF]', and 'Well Driller Viewer - mobile friendly map instructions [PDF]'. It also lists 'Special well casing depth area requirements' with three links: 'Special well casing depth areas [PDF]', 'Special casing area requirements for arsenic', and 'Recommendations for arsenic in drinking water'. Underneath is 'Separation Distance Requirements' with two links: 'NR 812 Table A [exit DNR] - July 1, 2020 to Present (Minimum Separation Distance Requirements Between Potable or Nonpotable Wells, Reservoirs, Springs and Possible Contamination Sources)' and 'NR 812 Table E [exit DNR] - All wells constructed prior to July 1, 2020 (Historic Minimum Separation Distance Requirements Between Potable or Nonpotable Wells, Reservoirs, Springs and Possible Contamination Sources)'. At the bottom of the callout box is the link 'Well Casing Heights Fact Sheet and Flow Chart [PDF]'. A yellow arrow points from the 'Level 1 resources - well location' text to the blue menu bar. Another yellow arrow points from the 'Well Casing Heights Fact Sheet and Flow Chart [PDF]' link to the 'Useful fact sheets are linked in the menu' callout. A red callout bubble says 'Click blue bar to drop down menu' and another says 'Useful fact sheets are linked in the menu'.

# DNR Fact Sheets

## Well Casing Heights

A fact sheet for drillers and pump installers

The compliance of a well casing height depends on where it is located and when it was installed. Wells located in driveway ramps, pits, alcoves, pumphouses and basements can have different casing height requirements than wells installed outside or in a floodplain. The flow chart attached to this fact sheet provides a summary of the important installation date and location considerations for well casing height compliance.

### SOME IMPORTANT FACTS ABOUT WELL CASING HEIGHTS:

- **INDOOR LOCATIONS**- Wells installed in basements on or before April 10<sup>th</sup> 1953 or walkout basements or pits and alcoves require a 6 inch minimum casing height.
- **PITS OR WALKOUT BASEMENTS**– Wells installed in pits built after April 10<sup>th</sup> 1953 or in a walkout basement after February 1, 1991 require a 12 inch minimum casing height. (Pits installed after April 10<sup>th</sup>, 1953 must meet the construction requirements of s. NR 812.36(2) and require plan approval by DNR prior to construction).
- **OUTDOORS** – Wells installed outdoors on or after February 1, 1991 require a 12 inch minimum casing height. Wells installed outdoors before February 1, 1991 require an 8 inch minimum casing height.
- **FLOODPLAINS** – The minimum casing height for a well installed in a floodplain is 24 inches above the floodplain elevation if installed on or after October 1, 1975 and 8 inches if installed prior.
- **DRIVEWAY RAMPS** – Wells installed in driveway ramps require a minimum of 4 inches of casing height above the original grade of the driveway, parking lot or sidewalk. Driveway ramps cannot be installed in a floodplain.
- **ABOVE GROUND PUMPHOUSES** – The poured concrete floor of an above ground pumphouse must be 4 inches above the surrounding grade. The well casing must be a minimum of 12 inches above the concrete floor level.



DOES A WELL CASING HEIGHT COMPLY WITH ch. NR 812 Wis. Adm. Code?  
Please check the flowchart on the back of this page.



# DNR Fact Sheets

## Well Casing Heights

A fact sheet for drillers and pump installers

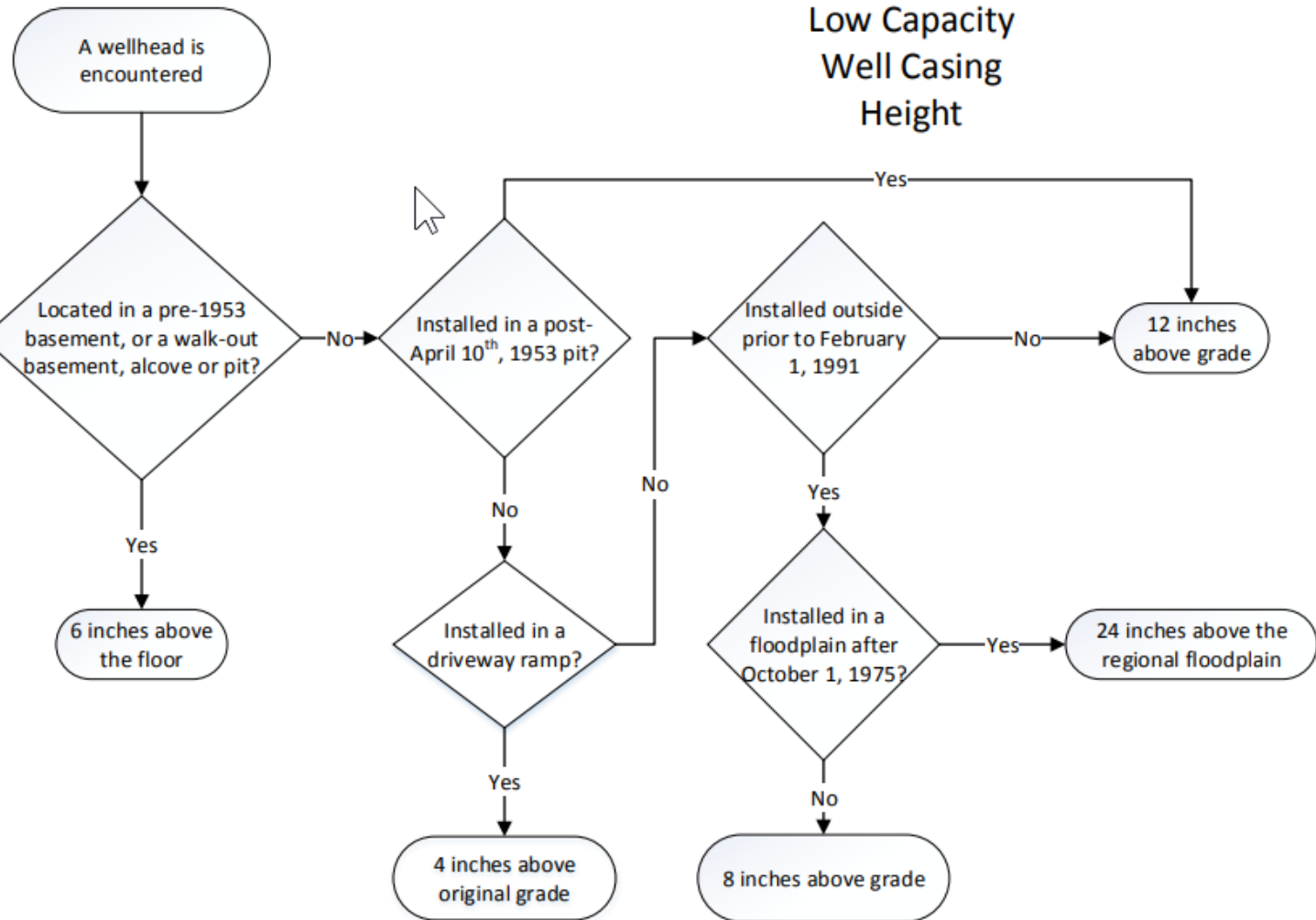
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- **DRIVEWAY RAMPS** - Wells installed in driveway ramps require a minimum of 4 inches of casing height above the original grade of the driveway, parking lot or sidewalk. Driveway ramps cannot be installed in areas subject to flooding.
- **ABOVE GROUND PUMPHOUSES** - The poured concrete floor of an above ground pumphouse must be a minimum of 12 inches above the surrounding grade. The well casing must be a minimum of 12 inches above the concrete floor.



DOES A WELL CASING HEIGHT COMPLY WITH s. NR 812.36(2) Wis. Stats. Please check the back of this fact sheet for more information.



# DNR Fact Sheets

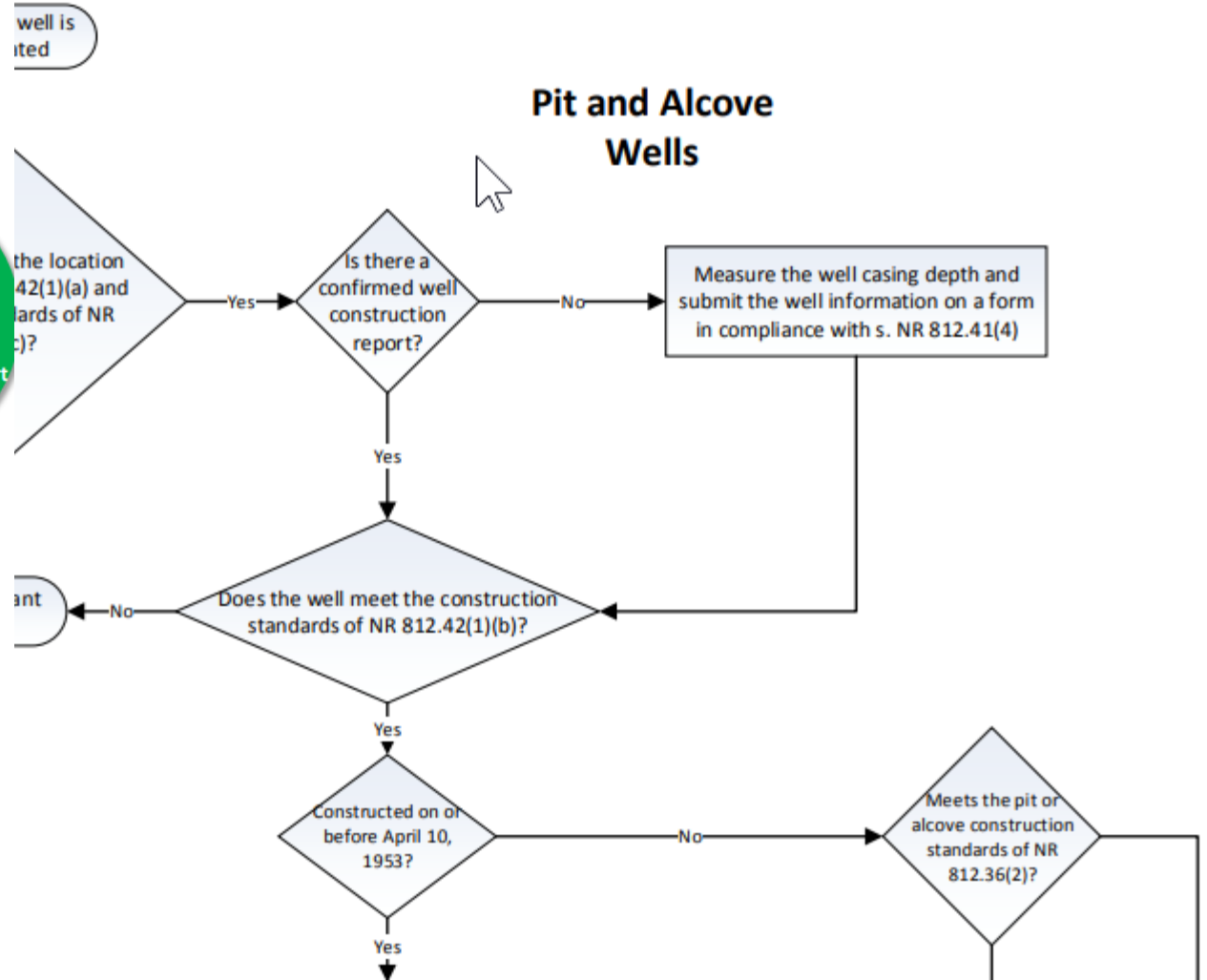
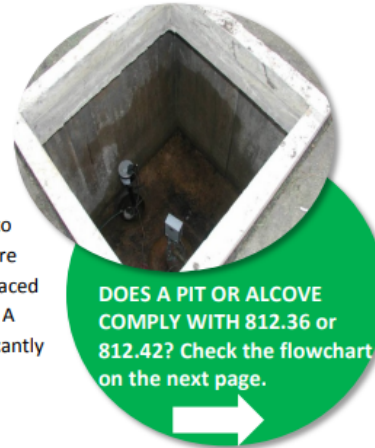
## Pits and Alcoves

A fact sheet for drillers and pump installers

Well pits and alcoves are below-ground enclosures that contain a wellhead, pressure tank and associated water system components. Well pits and alcoves are designed to prevent the wellhead and water supply equipment from freezing and to promote a sanitary wellhead area. Well pits and alcoves were in common use before the invention of the pitless adapter in the early 1950s. Pitless adapters rapidly replaced well pits and alcoves as the preferred method to provide protection from freezing. A pitless adapter creates less risk of contaminating groundwater and will cost significantly less to construct than well pits or alcoves.

### IMPORTANT FACTS ABOUT WELL PITS AND ALCOVES:

- **DNR APPROVAL** – A well pit constructed after April 10, 1953 requires approval from DNR to verify that the pit construction standards of NR 812.36 are met. The construction specifications are provided in s. NR 812.42(2) for well pits constructed on or before April 10, 1953 and in s. NR 812.36(2) for all other well pits. Extending the casing out of a noncompliant pit constructed on or before April 10, 1953 is a more common practice, requires no DNR approval and typically costs less than modifying the construction of the pit.
- **ALCOVES** – An alcove (also referred to as a subsurface pumphouse) is a well pit that shares a wall with the foundation of a basement and has access from the basement. When a well is extended out of a pit, the pit must be backfilled. When a well is extended out of an alcove, the alcove does not have to be backfilled.
- **VALVE PITS** – A pit that only contains water supply pipe and a valve is a valve pit, not a well pit. A valve pit shall be watertight, may not be connected to a sewer, shall be drained to permeable soil or to the ground surface and may not be subject to flooding. Pits that contain a pressure tank are not valve pits and are therefore subject to well pit rules.
- **CASING HEIGHT** – The minimum casing height for an existing well installed within a pit or alcove is six inches if installed on or before April 10, 1953 and 12 inches if installed after April 10, 1953. A pit or alcove well installed on or before April 10, 1953 that has less than a six inch casing height must be extended out of the pit or alcove to 12 inches above the outside grade or the pit or alcove roof if the extension causes an obstruction.
- **WATER ENTRY** – If water enters into a well pit through the walls or floor, the casing must be extended out of the pit and the pit backfilled. If water enters into an alcove through the walls or floor, the casing must be extended out of the alcove. If the basement adjacent to an alcove is subject to flooding, the well shall be filled and sealed.



# DNR Fact Sheets

## Level 3 resources - existing private water systems

[Bacteria in drinking water \[PDF\]](#)

[Manure and drinking water](#)

[Flooded wells](#)

**Property transfer well inspections**

- [Form 3300-221 \[FILLABLE PDF\]](#)
- [Form 3300-221 \[NON-FILLABLE PDF\]](#)

**NR 812 Compliance Report:**

- [Form 3300-305 \[FILLABLE PDF\]](#)
- [Form 3300-305 \[NON-FILLABLE PDF\]](#)

[Fact Sheets for Existing Installations](#)

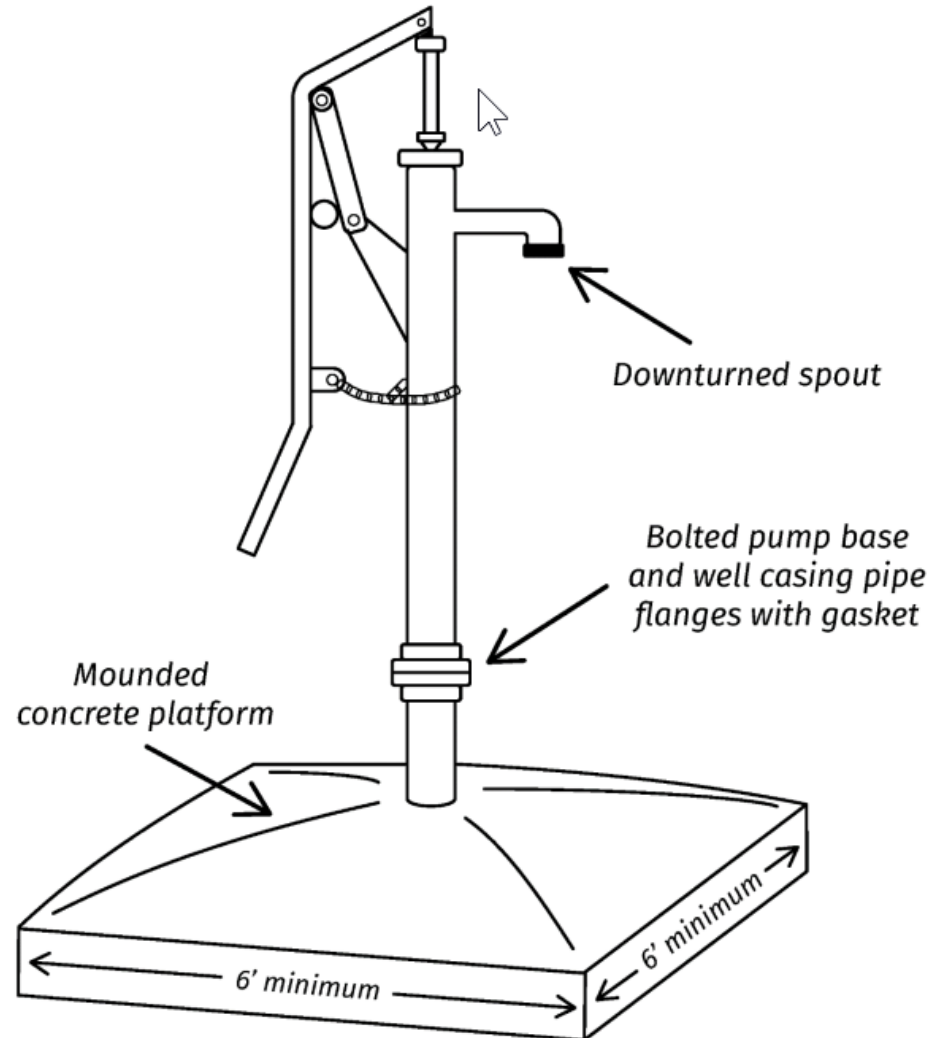
[NR 812 Subchapter IV \[exit DNR\]](#) — Standards for Existing Installations

Complete List

- [Bacteria Treatment Fact Sheet \[PDF\]](#)
- [Basement Wells Fact Sheet and Flow Chart \[PDF\]](#)
- [Dual Aquifers Fact Sheet \[PDF\]](#)
- [Flowing Wells Fact Sheet and Flow Chart \[PDF\]](#)
- [Hand Pumps on Wellheads \[PDF\]](#)
- [Nonpressure Storage Vessels Fact Sheet \[PDF\]](#)
- [Nonpressurized Conduit Fact Sheet and Flow Chart \[PDF\]](#)
- [Pits and Alcoves Fact Sheet and Flow Chart \[PDF\]](#)
- [Sample Faucets Fact Sheet \[PDF\]](#)
- [Springs as a Potable Water Supply Fact Sheet \[PDF\]](#)
- [Water Sample Requirements Fact Sheet and Flow Chart \[PDF\]](#)
- [Water Well, Reservoir and Spring Location Fact Sheet \[PDF\]](#)
- [Well Casing Heights Fact Sheet and Flow Chart \[PDF\]](#)
- [Yard Hydrants Fact Sheet and Flow Chart \[PDF\]](#)

# DNR Fact Sheets

DIAGRAM NOT DRAWN TO SCALE



# DNR Fact Sheets

## Bacteria Treatment

A fact sheet for driller and pump installers

The presence of bacteria in well water may indicate the water system is at risk to more serious forms of contamination. Water from a well properly located and constructed should be free of bacteria. A well with continued bacterial contamination may require additional measures to effectively treat the well.

### SOME IMPORTANT FACTS ABOUT BACTERIA TREATMENT:

- **CHEMICAL TREATMENT AND BATCH CHLORINATION**-Chemical treatment shall be conducted under the supervision of a licensed Well Driller or Professional Engineer. A well acidification shall be conducted with material approved under NR 812.091, Wis. Adm. Code, and in a manner to prevent damage to humans, pump, and property. Batch Chlorination shall meet the specifications outlined in NR 812.22(2) (a-e) and 812.41.
- **FIND THE PROBLEM/FIX THE PROBLEM**- After a coliform bacteria-positive test result, and before reverting to installing treatment devices, Well Drillers and Pump Installers are required to return to diagnose and attempt to correct the underlying cause of the bacteria-positive test.
- **TREATMENT DEVICES**- Before a water treatment device is installed on a private well for the purpose of controlling bacteria, an inspection of the existing well and pressure system for compliance with construction and location requirements of NR 812. No person may install a water treatment device for the purpose of controlling bacteria unless an inspection is completed that meets all the requirements of NR 812.37(3m) (a-d). The inspector shall use NR 812 Compliance Report form # 3300-305 for the inspection and give the completed form to the well owner when the inspection is complete.
  - a. In-well treatment devices – e.g. pellet chlorinator – requires a written DNR approval
  - b. Downstream treatment devices – requires a written DNR approval for a non-community system; an inspection by a licensed Well Driller or Pump Installer is required to verify compliance before a licensed plumber may install a bacteria treatment device on a private well



The installation of a water treatment device does not replace proper well location, construction, and water supply protection.

# CONNECT WITH US

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