

Wyoming Water Well Contractors' Newsletter

NEWS FROM THE DIRECTOR'S DESK



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Water Well Contractors,

Warmer weather is here, and from the amount of Notice of Intent's I am receiving daily, you all are busy! Obviously Covid-19 has changed the way we all handle daily tasks, but hopefully we are close to getting back to "normal".

For anyone thinking about Continuing Education Credits for your license renewal, I would suggest finding online courses. I have heard from several companies that usually offer "in-person" events that have been forced to cancel or go to an online environment for their training. Just something to think about if your license is set to renew this year and you are short on hours.

Everyone be safe,
Jimmy Gordon

State Board of
Examining Water Well
Drilling Contractors and
Water Well Pump
Installation Contractors

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Online Licensing Software Update-

The Board has finalized its new online licensing software and will be rolling it out to contractors this summer. The new software will allow contractors and new applicants to fill out forms online, submit and track continuing education credits, and pay online with credit cards. Once the Board has time to completely test out the new software, I will communicate details on how to setup your individual login, and plan to host training sessions for anyone who wishes to use the online program.

Please remember this new system is optional for contractors, meaning you can still mail in your renewal applications, continuing education credits, and checks for fees. Logging into the system is optional and will not be required at this time.

Congratulations to the following Contractors on their new Wyoming Licenses

-Ted Amsden, Pumps Etc, Broadus, MT MTPI 003

-Ronald Stauffer, Stauffer Enterprises, Montrose, CO COPI 102

-Parker Blakeley, Pronghorn Pump, LLC, Evansville, WY 01PI 145

-Matthew Leonard, Weber Drilling, Jackson, WY 04PI138

- Brett Chadwick, Weber Drilling, Jackson, WY 04WDPI136

-Darwin Mohler, Ron's Plumbing, Buffalo, WY 02PI 145

Groundwater, Wells, and Coronavirus

COVID-19 is not a reason by itself for home treatment systems and bottled water.

By William M. Alley, Ph.D., and Charles A. Job

The coronavirus that causes COVID-19 (officially known as SARS-CoV-2 but referred to here as the COVID-19 virus) has not been detected in drinking water in either private wells or public drinking water systems.

Human feces would be the most likely source of the COVID-19 virus in drinking water, but according to the World Health Organization, "the risk of catching COVID-19 from the feces of an infected person appears to be low."¹

Filtration and disinfection methods used in most municipal drinking water systems should remove or inactivate viruses. Despite the low risks, the question has arisen about the vulnerability to COVID-19 of homeowners with private wells and those who rely on untreated public groundwater supplies.

We address this question for private well owners by reviewing (1) viruses in groundwater in general and specific characteristics of the COVID-19 virus as it relates to groundwater, (2) septic systems as a potential source of COVID-19 virus to private wells, and (3) treatment systems for private wells.

Viruses in Groundwater

In general, groundwater contains fewer microbial contaminants (pathogens) than surface water, yet the biological integrity of groundwater cannot be taken for granted.² Approximately half of all waterborne disease outbreaks are associated with contaminated groundwater.³

Many of these outbreaks are from wells that serve businesses or small water systems that do not require water disinfection and have minimal microbial monitoring requirements. People drinking from household wells also can become exposed to waterborne pathogens, but these outbreaks are less well documented.

Pathogens can be introduced to groundwater through septic tanks, leaking sewers, and land applications of livestock manure and septage, among other sources. Groundwater contamination also can occur from poor well design and construction.

A proper sanitary seal around the well casing is essential to block contaminants that might migrate from the land surface down the outside of the casing (well annulus) to the water table, bypassing the unsaturated zone that naturally helps cleanse groundwater.

Human enteric viruses (those that replicate in the intestinal tract of humans) are among the microbial contaminants of greatest concern in well water. Common enteric viruses are shed in human stool in enormous numbers and commonly tied to disease outbreaks.⁴

Reduction of pathogens in the subsurface generally relies on three processes: filtration, adsorption, and die-off/inactivation.

Filtration results when the pathogens are too large to fit through the soil or aquifer pores and cracks. The extent of filtration depends on the type of soil and rocks through which groundwater flows. For example, silts are more effective at trapping microorganisms than sands.

This article continues at <https://waterwelljournal.com/groundwater-wells-and-coronavirus/>

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| NDA | On-Line Certification Exams | Website | https://nda4u.com |
| AGWT | Educational Videos and Books | Website | www.AGWT.org |
| ISWD | International School of Well Drilling Online Courses | Website | welldrillingschool.com |
| NGWA | Selection of Meters for Water Well Pumps (7132-1) | Website | Online self-paced course |
| TLC | Technical Learning College | Website | Self-paced courses |



KEY

WGWA – Wyoming Ground Water Association

NDA – National Drilling Association

NGWA – National Ground Water Association

NWDA – Nebraska Well Drillers Association

CWWCA – Colorado Water Well Contractors Association

WARWS – Wyoming Association of Rural Water Systems

WWA- Wyoming Water Association

WWQ & PCA – Wyoming Water Quality & Pollution Control Association

WWWCB – Wyoming Water Well Contractors Licensing Board

BIDP – Baroid Industrial Drilling Products

AGWT – American Ground Water Trust

SEDC – Shallow Exploration Drillers Clinic

IGWA – Idaho Ground Water Ass. Inc.

ISWD – International School of Well Drilling
www.welldrillingschool.com

CPS - CPS Distributors

Goulds - Goulds Water Technology Factory

School WebEx Training

Technical Learning College

www.abctlc.com

For continuing education opportunities please refer to each respective association's website for additional information.