

Minnesota Well Management News



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Minnesota Well Management News

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Proposed Changes to Minnesota Statutes, Chapter 103I

On Tuesday January 24, 2017, Governor Mark Dayton released the state's biennial budget proposal for fiscal years 2018-2019. It includes several proposed changes to Minnesota Statutes, chapter 103I, "Wells, Borings, and Underground Uses," including some fee increases and reductions, modification of some license categories, and the simplification of some well and boring categories.

The most notable fee change proposals include increasing the well construction notification fee from \$235 to \$275; the well sealing notification fee from \$65 to \$75; the Vertical Heat Loop permit fee for systems <10 Tons from \$235 to \$275, for systems 10-50 tons from \$475 to \$515, and for systems >50 tons from \$700 to \$740; and the variance fee from \$235 to \$275.

Other proposals include:

- Combining the limited pump installer and limited pitless/well screen licenses into one limited license.
- Eliminating the limited "dug well/drive-point" and "individual" license categories which have become obsolete.
- Combining monitoring wells, environmental bore holes, and remedial wells into a single category called "environmental well" and requiring a notification form and \$275 notification fee instead of a permit.
- Requiring the certified responsible individual overseeing exploration to renew their certification annually and pay an annual \$75 renewal fee (consistent with all other certified individuals.)
- Requiring that licensed explorers pay a notification fee of \$275 for construction of each exploratory boring (commensurate with other well construction notification fees.)
- Eliminating the \$50 monitoring well maintenance permit fee for governmental agencies.

The complete budget proposal may be reviewed at: [FY 18-19 Biennial Budget Change Item Table of Contents Health](https://mn.gov/mmb-stat/documents/budget/2018-19-biennial-budget-books/governors-recommendations-january-2017/health-department.pdf) (<https://mn.gov/mmb-stat/documents/budget/2018-19-biennial-budget-books/governors-recommendations-january-2017/health-department.pdf>).

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Ron Thompson, MDH Well Management Section Supervisor, Retires

Ron Thompson, Minnesota Department of Health (MDH), Metro District Well Management Section Supervisor, retired from state service on January 10, 2017, after 39 plus years.

Ron was hired by MDH as a field hydrologist in 1977. He initially worked in the Ground Water Quality Control Unit for Ed Ross and became supervisor of the unit from 1982 to 1985. He then worked in Landfill Monitoring Program in the Special Services Unit under Tom Klaseus from 1986-1990. In 1990, Ron accepted the position of supervisor of the metro district of the Well Management Unit, (which later became the Well Management Section), and served in that position until his retirement.

In addition to his supervisory duties, Ron was instrumental in the development and implementation of well contractor licensing and well statute and rule development in Minnesota. In his early years with MDH, Ron helped write and publish the *“Minnesota Water Well Manual.”* It was a reference manual for individuals who inspect, design, regulate, construct, or use water wells. Ron was also in charge of well code (Chapter 4725) rule revisions in 1993 and again in 2008. Ron was also principal author of the *“Rules Handbook – A Guide to the Rules Relating to Wells and Borings – Minnesota Rules, Chapter 4725”* which was published in August 1994, and was then rewritten and republished on March 31, 2011, after the 2008 rule revision. Ron assisted in hiring, training, and mentoring many MDH Well Management Section staff since the well program expanded in 1990, after the passage of the Minnesota Ground Water Protection Act of 1989. Ron also served on the Minnesota Plumbing Board for several years.



Ron Thompson, Well Management Section, Metro District Supervisor, retired on January 10, 2017.

Ron worked closely with the public, well contractors, and other groundwater professionals on many well and boring projects over the years. Ron’s vast knowledge of the well industry, public health, and the MDH well program will truly be missed, as well as his quick wit and dry sense of humor. Ron was well liked and respected by his coworkers. His contributions to Minnesota’s well program, the well drilling industry, the protection of public health and safety, groundwater quality, and the environment are immeasurable. Minnesotans will benefit from his excellent work for many years to come.

Ron was asked if he would miss the job. His answer was *“Yes....., although not enough to put off retirement. I will miss the challenges, the interesting questions (after 39 years, 4 months, and 10 days, you would think you would have had heard them all, but not so), the progress we have made, and the great bunch of dedicated, genuinely nice people in the well program. It has been a pleasure. . .”*

Clean Water Fund Private Well Sealing Grant Awards for 2017

The Minnesota Board of Water and Soil Resources (BWSR) has approved six local governmental units (LGUs) for private well sealing grant funding for 2017. The LGUs must now submit a work plan to BWSR by March 3, 2017. Grant money should be available in April 2017. A total of \$92,825 of well sealing grant money will be distributed to the following LGUs. Contact persons for each LGU are provided.

Benton Soil and Water Conservation District	Gerry Maciej	320-968-5300
Carver County	Charlie Sawdey	952-361-1810
East Otter Tail Conservation District	Benjamin Underhill	218-346-4260
Ramsey Conservation District	Andrea Prichard	651-266-7274
Washington County Public Health and Environment	Stephanie Souter	651-430-6676
Yellow Medicine County	Jolene Johnson	320-669-7524

County Geologic Atlas News

The Minnesota Geological Survey (MGS) has recently released “Part A” of the updated County Geologic Atlas for Washington County, and “Part A” of the new County Geologic Atlas for Anoka County. Both counties are located in the twin cities metropolitan area in east central Minnesota. The new atlases are based primarily on geological information that has become available through old and new well construction records, drill cutting samples, and gamma-logging data obtained from new wells, and from old wells prior to permanent sealing.

The original geologic atlas for Washington County was first published in 1990. “Part A” of the updated Washington County Geologic Atlas contains updated data point, bedrock geology, surficial geology, Quaternary stratigraphy, sand distribution, bedrock topography and depth to bedrock maps. The updated “Part A” maps for Washington County are available on the University of Minnesota’s Digital Conservancy online at: [Geologic Atlas of Washington County, Minnesota](http://conservancy.umn.edu/handle/11299/178852) (<http://conservancy.umn.edu/handle/11299/178852>). Print copies are also available through the Map Sales Department at MGS. The Minnesota Department of Natural Resources (DNR) has begun work on “Part B” of the atlas, which contains hydrogeologic and water quality information. “Part B” of the Washington County atlas will be available at some time in the future.

“Part A” of the Anoka County Atlas contains data point, bedrock geology, surficial geology, Quaternary stratigraphy, sand distribution, bedrock topography and depth to bedrock, water chemistry, and hydrogeologic cross section maps. The “Part A” maps are now available online at: [Geologic atlas reveals what’s under the surface](http://www.knowtheflow.us/2016/12/geologic-atlas-reveals-whats-under-the-surface/) (<http://www.knowtheflow.us/2016/12/geologic-atlas-reveals-whats-under-the-surface/>). Print copies are available through the Anoka County Conservation District by contacting Mr. Jamie Schurbon at 763-434-2030, extension 12, or through the Map Sales Department at MGS. “Part B” of the Anoka County Atlas is undergoing final review by the DNR and is expected to be available online and in print, in the near future.

“Flowing” Artesian Wells in Minnesota

“Artesian wells,” are wells that are completed in aquifers that contain groundwater that is under sufficient pressure such that water rises in the well above the top of the aquifer. Such aquifers are termed “artesian aquifers.” Artesian aquifers are typically located below an overlying, geologic layer which confines, and exerts pressure on the underlying groundwater. The level to which water will rise in a well completed in an artesian aquifer is called the piezometric surface. The piezometric surface may be either below, or above the land surface. When the piezometric surface is below the land surface, the water level in the well is above the top of the aquifer, but below the land surface. When the piezometric surface is above the land surface, water will freely flow from the well at the land surface without the aid of a pump. These wells are called “**flowing, artesian wells.**” The volume of water that flows at the land surface is determined by the diameter of the well, how it is constructed, and the pressure of the water in the aquifer. The word Artesian has its origins from the Artois region in northern France where many flowing, artesian wells were drilled as far back as the Middle Ages. Flowing, artesian wells are usually found in areas of lower elevation and are common in river valleys and on some lakeshore properties.



Flowing, artesian well, St. Paul, Minnesota.

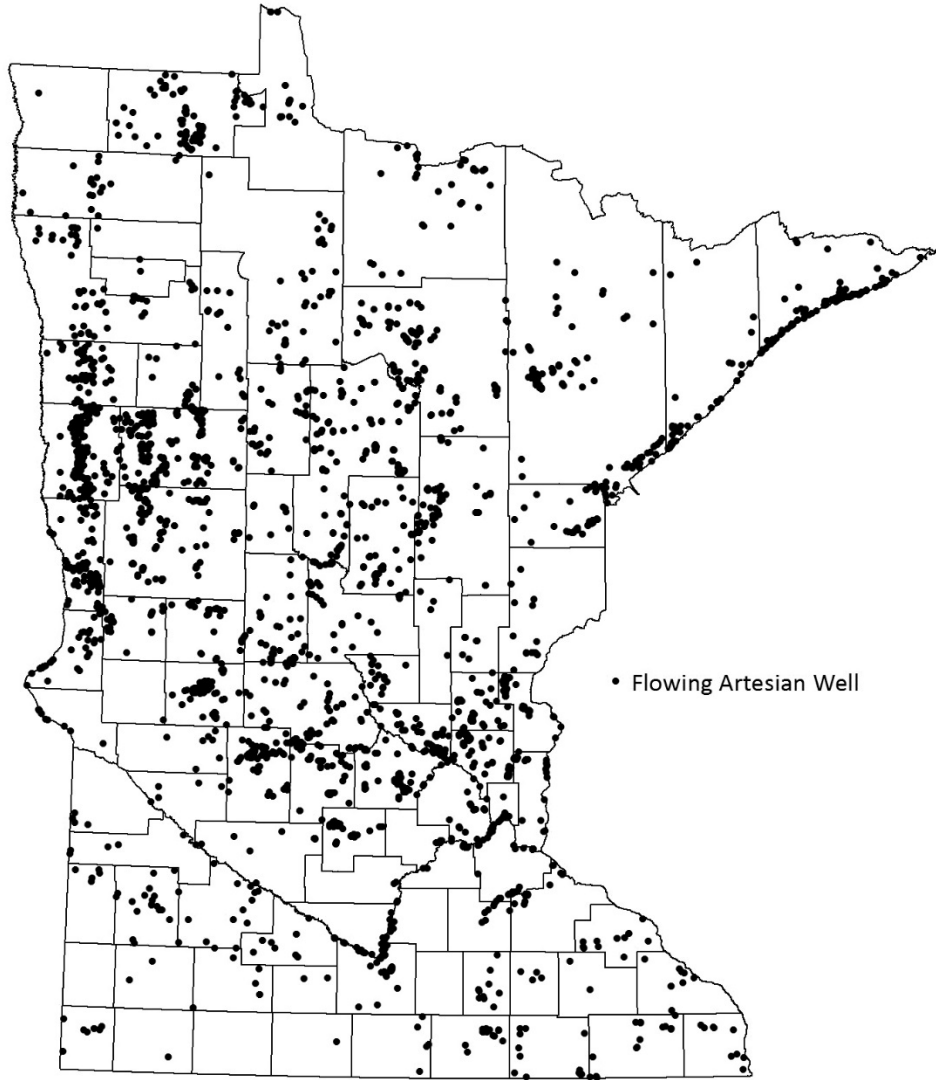
In Minnesota, the volume of water that flows from a flowing, artesian well is variable. High volume flows occur in some wells in all parts of the state. One well at the University of Minnesota in Minneapolis (that has since been permanently sealed) was estimated to be flowing at 2,000 gallons per minute. Most flowing, artesian wells in Minnesota have low volume flow, and produce only a trickle of water to a few gallons per minute.

The Minnesota Well Code has specific construction requirements for flowing, artesian wells. In some areas of Minnesota, where high volume and high pressure flowing, artesian wells are common, additional, special well construction regulations are needed to assure that they are constructed in a safe manner that contains the flowing water, prevents soil erosion, prevents property damage, and minimizes the unnecessary wasting of groundwater. In 2000, the Minnesota Department of Health (MDH) established a “Flowing Well and Boring Special Construction Area” near Kabekona and Benedict Lakes in Hubbard County to notify well contractors and the public of high volume and high pressure flowing wells in the area, and to establish special flowing, artesian well construction requirements.

The well code also requires that newly constructed flowing, artesian wells have flow control. Controls may include valves or flowing well pitless units that can shut off the flow of water when the well is not in use. Owners of flowing, artesian wells may be subject to water conservation requirements and water appropriation regulations, both of which are administered by the Minnesota Department of Natural Resources.

A recent search of well records in the Minnesota Well Index application has revealed that flowing, artesian wells are found in 85 of Minnesota's 87 counties. The only counties that do not have record of flowing, artesian wells are Pipestone and Jackson Counties in southwestern Minnesota.

Flowing Artesian Wells in Minnesota



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Reprinting of articles in this newsletter is encouraged.

Please give credit to the Minnesota Department of Health or noted source.

Obituaries

Gary R. Barott, age 82, from Centerville, Minnesota, passed away peacefully at home on December 5, 2016. Gary was the former owner of Barott Drilling Services in Lino Lakes, Minnesota.

Gary started drilling wells in the 1950s. He was a second generation well contractor and inherited his well drilling business from his father Ivan Barott. Gary's son Brad Barott is the current owner and continues to operate Barott Drilling Services in Lino Lakes.

[Gary R. Barott](http://www.legacy.com/obituaries/twincities/obituary.aspx?n=gary-r-barott&pid=183005426&fhid=5650#sthash.fRHTQiwH.dpuf) (www.legacy.com/obituaries/twincities/obituary.aspx?n=gary-r-barott&pid=183005426&fhid=5650#sthash.fRHTQiwH.dpuf)

James "Jim" Erickson, age 87, of Westbrook, Minnesota, passed away on Wednesday, December 28, 2016.

Jim was the former owner and operator of Jim Erickson Well Drilling, in Westbrook, Minnesota. Jim began drilling with his brother-in-law, Marvin Berg, in 1948 and then started his own well contracting business in 1952. He drilled wells for 40 years then did water well repair work until 2009. Jim was a creator and inventor. He built his own cable-tool well drilling rig from a 1937-B, John Deere tractor. In 1971, Jim was appointed by Governor Wendell Anderson, to serve four years on the Minnesota Department of Health's Advisory Council on Wells, and assisted in developing requirements for well contractor licensing in Minnesota. Jim was an active member of the Minnesota Water Well Association (MWWA) and was elected to the Board of Directors in 1980. In 1985, Jim had to resign from his Vice President position because of ill health. He was awarded an Honorary Membership from the MWWA.

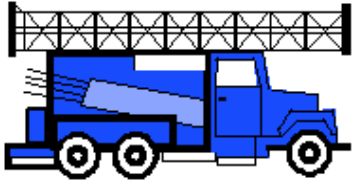
[James "Jim" Erickson](http://stephensfuneralservice.com/james-erickson/) (<http://stephensfuneralservice.com/james-erickson/>)

Continuing Education Calendar

The Internet link to the Minnesota Department of Health (MDH), Well Management Section's, [Continuing Education Programs](http://www.health.state.mn.us/divs/eh/wells/lwcinfo/training.html) (www.health.state.mn.us/divs/eh/wells/lwcinfo/training.html).

This calendar lists the upcoming continuing education courses that have been approved for renewal of certification for representatives of Minnesota licensed and registered well and boring contractors. The calendar also lists the number of credits available for each course. The calendar is updated monthly and, if you subscribe, you will be notified by email when this page changes (new classes added, changes to existing classes).

For additional information about any of these training opportunities, call the contact person listed for the program of interest. For general information about continuing education, more current CEU listings, or to request approval for other continuing education activities not listed, contact Norm Mofjeld, MDH, Well Management Section at 651-201-4593, or norman.mofjeld@state.mn.us.



Minnesota Well Management News

New Contractor Certifications*

Well Contractor

William Diehl
Layne Christensen Company
Yorkville, Illinois

Leander Weckman
Bohn Well Drilling, Inc.
New Prague, Minnesota

Individual Well Contractor

Joshua Elsner
Park Rapids, Minnesota

Monitoring Well Contractor

John Link
Subsurface Exploration Services, LLC
Sobieski, Wisconsin

Explorer

Paul Fix
Anglogold Ashanti Minnesota
Duluth, Minnesota

*List includes new Contractor Certifications Issued by the Minnesota Department of Health Well Management Section since publication of the Spring/Summer 2016 Minnesota Well Management News, and is current as of January 11, 2017.