

Agenda

WDNR's High-Capacity Well Application and Approval Process *A. Freihoefer*

- What is a high capacity well?
- Requirements for submitting a high capacity well application
- Review criteria for proposed high capacity wells
- Approval language and requirements
- Participating in administrative hearings
- Appealing decisions
- Grounds for rescinding or modifying approval
- Case studies and DNR research
- Types of applications across Wisconsin
- Central Sands Lakes study

Limits on Use of High Capacity Wells Under Wisconsin Law *M. Frank*

- Evolution of the Public Trust Doctrine
- Common law and reasonable use of groundwater
- History of legislative regulation of groundwater withdrawals
- Overview of current statutes and administrative rule provisions relating to high capacity wells
- Enforcement and penalties

High Capacity Wells and the Impact of Groundwater Withdrawals *E. Feinauer G. Kraft*

- Basic facts: What are high capacity wells? How many are there in Wisconsin? Where? How much water do they use? Who uses them?
- Impacts of high capacity well use
- Legal issues involving high capacity wells

Impact of Groundwater Extraction on Groundwater and Surface Water Hydrology *E. Feinauer G. Kraft*

- Groundwater basics - how groundwater fits into the water cycle Wisconsin's aquifers
- Pumping impacts on water resources
- Pumping in Wisconsin - who uses groundwater and where?
- Case study: Wisconsin's Central Sands
- Other case law/studies
- Possible outcomes/impacts

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High-Capacity Water Well Science, Law and Regulation

Live, Interactive Webinar - Monday, June 21, 2021

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Learning Objectives

You'll be able to:

Examine requirements for submitting a high-capacity well application.

Review criteria for proposed high-capacity wells.

Discuss grounds for rescinding or modifying high-capacity well approvals.

Explore the evolution of the Public Trust Doctrine, and discuss the common law on groundwater use.

Review the number of high-capacity wells in Wisconsin, who owns them and what they are used for.

Consider the impact of groundwater withdrawals on surface water hydrology.



HalfMoon Education Online Learning High-Capacity Water Well Science, Law and Regulation

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Learn what is, and what is not, a high-capacity well

Review criteria for high-capacity wells

Discuss case studies and Department of Natural Resources research

Explore limits on the use of high-capacity wells under Wisconsin law

Consider the effect of groundwater withdrawals on high-capacity well permitting

Investigate the impact of groundwater use on surface waters

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Faculty

Adam Freihoefer
Water Use Section Chief – Bureau of Drinking Water and Groundwater (WDNR)
Adam Freihoefer serves as the Water Use Section Chief within the Wisconsin Department of Natural Resources’ (WDNR) Bureau of Drinking Water and Groundwater. He oversees the implementation of Wisconsin’s groundwater quantity program that involves the Great Lakes Compact, high capacity wells, surface water withdrawals, diversions, and water quantity monitoring. In conjunction with his current position, Mr. Freihoefer has accrued 18 years of experience in water policy, surface water and groundwater hydrology, water quality monitoring, surface and groundwater numeric modeling, and GIS. Adam obtained his B.S. degree in Hydrogeology and an M.S. degree in Water Resources from the University of Wisconsin at Stevens Point. Mr. Freihoefer has served as a groundwater hydrologist and statewide water quality modeler for the WDNR, and prior to joining the WDNR, he worked for regional and state agencies in Minnesota and Arizona. While in Minnesota, he served as the Metropolitan Council’s technical lead in the interpretation of river, stream, and lake water quality data for the Twin Cities metro area. During his time in Arizona, Mr. Freihoefer functioned as the Groundwater Modeling Unit Supervisor within the Arizona Department of Water Resources (ADWR). While at the ADWR he supervised the development of regional groundwater flow models to evaluate aquifer characteristics within Arizona’s managed basins.

Matthew J. Frank *Attorney with Murphy Desmond S.C.*
Attorney Frank’s practice focuses on environmental and energy law. He is also chair of the firm’s Business and Real Estate Practice Group. He provides experienced counsel to businesses, start-ups, municipalities, utilities, organizations and individuals in a wide range of environmental and energy matters, helping clients successfully navigate regulatory and legal challenges Mr. Frank is a former Secretary of the Wisconsin Department of Natural Resources (DNR) and Assistant Attorney General with the Wisconsin Department of Justice (DOJ). During his tenure as DNR Secretary from 2007 through 2010, he oversaw the DNR’s regulatory and permitting programs, including air and water quality, waste and recycling, wetlands, groundwater, environmental clean-ups and brownfields restoration. Mr. Frank worked closely with businesses and communities on sustainability initiatives such as the

Green Tier program and the Green Tier Legacy Communities Charter. He also worked closely on environmental and natural resource issues with officials in the Environmental Protection Agency, other federal agencies, states across the country, and Wisconsin tribal and local governments. Murphy Desmond has offices in Madison, Appleton, Janesville and Dodgeville.

Evan Feinauer *Staff Attorney for Clean Wisconsin*
Mr. Feinauer is Staff Attorney for Clean Wisconsin, an environmental advocacy nonprofit located in Madison, Wisconsin. His work focuses on water issues across Wisconsin. Working with Clean Wisconsin’s partners, Mr. Feinauer litigated a pair of cases that were recently argued before the Wisconsin Supreme Court concerning groundwater quantity issues caused by the proliferation of high-capacity wells in the Central Sands and polluted farm runoff from a large dairy farm in Kewaunee County. Mr. Feinauer also successfully challenged a wetland fill permit the Department of Natural Resources issued for the construction of a frac sand facility, protecting over 16 acres of rare, pristine wetlands in Monroe County. He also supports Clean Wisconsin’s lobbyists and policy experts in their work advocating for strong legislation, administrative rules, and agency decision-making to protect Wisconsin’s waters. Before joining Clean Wisconsin, Mr. Feinauer worked as a Litigation Fellow with the Natural Resources Defense Council (NRDC). At NRDC, he helped litigate a Safe Drinking Water Act citizen suit responding to the Flint water crisis in federal district court in Detroit, MI. Mr. Feinauer holds a B.A. degree in Philosophy and Political Science from the University of Wisconsin-Madison, an M.S. degree in Ethics and Public Policy from Suffolk University, and a J.D. degree from the University of Chicago Law School.

George Kraft *Director of the Center for Watershed Science and Education*
Dr. Kraft is a Professor of Water Resources and director of the Center for Watershed Science and Education. He holds appointments with both the University of Wisconsin – Stevens Point College of Natural Resources and the University of Wisconsin – Extension. His work centers around groundwater sustainability for quantity and quality. Of late, most of his work has concerned groundwater pumping impacts on surface water, combining research, outreach, and policy concerns. Dr. Kraft’s research interests revolve about questions of water resource sustainability, particularly about profitable agriculture and water impacts.

Webinar Information

Log into Webinar 8:00 - 8:30 am CDT	Break 12:35 - 1:35 pm CDT
Morning Session 8:30 am - 12:35 pm CDT	Afternoon Session 1:35 - 4:00 pm CDT

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Continuing Education Credit Information
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This webinar offers 6.0 PDHs to Wisconsin engineers to whom the subject matter is professionally relevant. Educators and courses are not subject to preapproval in Wisconsin.

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This webinar extends a continuing education opportunity to Wisconsin geologists and hydrologists. Continuing education is not required at this time in Wisconsin.

Completion certificates will be awarded to participants who complete this event, respond to all prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Additional Learning

How To Design Stormwater Management Systems for Residential Sites
- Thurs, May 20, 2021 | 11:00 am - 1:00 pm CDT
Managing Construction Projects
- Fri, May 21, 2021 | 8:30 am - 4:30 pm CDT
Open Channel Hydraulics and Design
- Tues, May 25, 2021 | 8:30 am - 4:30 pm CDT
Retaining Wall Design and Slope Stabilization Techniques
- Tues, May 25, 2021 | 8:30 am - 4:30 pm CDT
Stream Restoration for Design Professionals
- Wed, May 26, 2021 | 9:00 am - 4:30 pm CDT

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