

Wisconsin Department of Natural Resources
Natural Resources Board Agenda Item

SUBJECT:

Request that the Board approve the Statement of Scope for Board Order DG-04-22 and conditionally approve the public hearing notice and notice of submittal of proposed rules to the Legislative Council Rules Clearinghouse, for proposed rules affecting chapter NR 140 related to setting numerical standards to minimize the concentration of polluting substances in groundwater (Cycle 10 Bacteria)

FOR: May 2022 Board meeting

PRESENTER'S NAME AND TITLE: Bruce Rheineck, Groundwater Section Chief

SUMMARY:

The proposed rule will amend ch. NR 140, Wis. Adm. Code, to replace the existing total coliform bacteria standards with new state groundwater quality standards for Escherichia coli (E. coli) bacteria. The proposed rule will also transition total coliform bacteria from a public health groundwater quality standard to an indicator parameter.

The purpose of establishing groundwater standards is to protect public health. Some types of E. coli bacteria, when consumed, can cause acute (short-term) gastrointestinal illnesses causing diarrhea, abdominal discomfort, nausea, and vomiting. Less common effects are chronic (long-term) and include kidney failure, hepatitis, and bloody diarrhea. E. coli bacteria are a subgroup of coliform bacteria and are considered to be a much more specific indicator of fecal contamination, and the potential for pathogens to be present in drinking water, than total coliform bacteria.

A preliminary public hearing on this scope statement was held on April 22, 2022. A recording of the hearing is available at: https://widnr.widen.net/view/video/huimfyuo3y/NR140-Prelim-Public-Hearing-DG-04-22.mp4

If the scope statement for Board Order DG-04-22 is approved, the department may begin drafting the rule language. As required by statute, the department may not begin work on the content of the proposed rule until the scope statement is approved. Once the rule is drafted, the department will seek public comment on the economic impact of the rule and on the proposed rule language. The 30-month time frame for submission of a final rule to the legislature for approval expires on September 21, 2024.

RECOMMENDATION: That the Board approve the statement of scope for Board Order DG-04-22 and conditionally approve the public hearing notice and notice of submittal of proposed rules to the Legislative Council Rules Clearinghouse.

LIST OF ATTACHED MATERIALS (check all that are applicable):

- Statement of Scope
Governor's Approval of Statement of Scope
Public Comments Summary
Background Memo
(insert document name)
(insert document name)

Table with 3 columns: Approved by, Signature, Date. Rows include Steven B. Elmore, Gail E. Good, and Preston D. Cole.

by Sarah Barry

cc: Board Liaison - AD/8
Department Tribal Liaison - AD/8

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Program attorney - LS/8

Department rule officer - LS/8

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CORRESPONDENCE/MEMORANDUM

DATE: April 25, 2022

TO: All Members of the Natural Resources Board

FROM: Preston D. Cole, Secretary

SUBJECT: Background memo on preliminary public hearing and public comments received on the scope statement for Board Order DG-04-22, for proposed rules affecting chapter NR 140 related to setting numerical standards to minimize the concentration of polluting substances in groundwater

On March 30, 2022, the co-chair of the Joint Committee for the Review of Administrative Rules (JCRAR) requested that the department hold a preliminary public hearing and comment period on the scope statement for Board Order DG-04-22, pursuant to s. 227.136(1), Wis. Stats. The statement of scope contemplates rulemaking to amend ch. NR 140 to set numerical standards to minimize the concentration of polluting substances in groundwater.

Public Hearing

The department held an online preliminary public hearing on the statement of scope on April 22, 2022 at 1:00 p.m. Four members of the public attended the hearing. Two people spoke at the hearing, asking for clarifications of the scope. One member of the public asked how NR140 relates to other DNR and DATCP rules for bacteria and the other asked if this scope statement includes any other substances besides bacteria, which it does not.

Written Public Comment

The public comment period ended on April 22, 2022. The department received one written comment on the proposed statement of scope. The commenter requested that the scope statement be amended to indicate that this rulemaking will only be used to propose groundwater standards for E. coli bacteria and total coliform bacteria and no other Cycle 10 substance.

The scope statement currently states “The proposed rule will amend ch. NR 140, Wis. Adm. Code, to replace the existing total coliform bacteria standards with new state groundwater quality standards for Escherichia coli (E. coli) bacteria. The proposed rule will also transition total coliform bacteria from a public health groundwater quality standard to an indicator parameter.”

A recording of the preliminary hearing is available at:

<https://widnr.widen.net/view/video/huimfyuo3y/NR140-Prelim-Public-Hearing-DG-04-22.mp4>.

Drafter: Bruce Rheineck

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TO: Bruce Rheineck – DG/5

FROM: Wisconsin Manufacturers & Commerce
Wisconsin Paper Council
American Chemistry Council

DATE: April 22, 2022

RE: Comments on SS 021-22 (Board Order DG-04-22), which affects NR 140, and is related to setting numerical standards for Cycle 10 bacteria in order to minimize the concentration of polluting substances in groundwater

The above referenced organizations – Wisconsin Manufacturers & Commerce, Wisconsin Paper Council, and American Chemistry Council – appreciate the opportunity to comment on Scope Statement 021-22. According to the scope statement, this rulemaking (Board Order DG-02-22) is being proposed by the Department of Natural Resources (“DNR” or “Department”) in relation to groundwater standards for Escherichia coli (E. coli) bacteria and total coliform bacteria. Specifically, this rulemaking proposes the adoption of a new groundwater standard for E. coli bacteria. It also proposes to revise the metric for total coliform bacteria from a public health groundwater quality standard to an indicator parameter.

Our organizations respectfully request that SS 021-22 be amended to make it explicitly clear that this rulemaking will only be used to propose groundwater standards for E. coli bacteria and total coliform bacteria and no other Cycle 10 substance. To clarify, the scope statement only describes changes to standards for E. coli bacteria and total coliform bacteria, so any attempt by the Department to expand DG-02-22 to include other Cycle 10 substances would be a plain violation of ch. 227 rulemaking requirements. Thus, adjusting the scope statement as requested would simply clarify the Department’s intention to the regulated community, and also ensure that the Department intends to follow lawful rulemaking requirements.

1. Background on Related Rulemaking

In June 2019, the Department of Health Services provided the DNR recommended groundwater standards for 27 substances. These are often referred to as the “Cycle 10” recommendations, as it reflects the 10th time that the DNR requested that DHS develop new recommended groundwater standards for consideration via rulemaking. The Cycle 10 list includes the aforementioned E. coli bacteria and total coliform bacteria, as well as two polyfluoroalkyl substances (PFOA and PFOS), Trichloroethylene (TCE), Hexavalent chromium, and many other substances.

All 27 substances from the Cycle 10 list were incorporated into Board Order DG-15-19. Our organizations submitted numerous concerns about this rule and participated throughout the rulemaking process. Our concerns included – but were not limited to – the Department’s statutory authority for the rule, the rule’s compliance costs, and the scientific justification for the standards included in the rule.

In February 2022, after hearing concerns from our organizations and a number of other stakeholders, the Natural Resources Board declined to approve DG-15-19. Last month, the Department formally withdrew the rule from legislative consideration and the rule’s scope statement expired.

Also last month, the DNR submitted SS 021-22 to the Legislature, which proposes groundwater quality standards for two types of bacteria found in Cycle 10. To date, the DNR has not submitted a scope statement for any of the other 25 substances found in Cycle 10. This raises the obvious question as to whether the Department intends to use this rulemaking as a vehicle to (unlawfully) propose groundwater quality standards for other Cycle 10 substances.

2. Incorporating any other substances besides bacteria into DG-04-22 would be an unlawful violation of ch. 227 rulemaking requirements.

In reference to SS 021-22, the scope statement only describes making changes to two substances, as noted in the first paragraph of page 2:

The proposed rule will amend ch. NR 140, Wis. Adm. Code, to replace the existing total coliform bacteria standards with new state groundwater quality standards for Escherichia coli (E. coli) bacteria. The proposed rule will also transition total coliform bacteria from a public health groundwater quality standard to an indicator parameter.

Since no other substance besides bacteria is identified in the scope statement, any attempt by the Department to incorporate other Cycle 10 substances into this rulemaking would be unlawful. Specifically, s. 227.135(4) restricts changing the scope of the rule in a “...meaningful or measurable way, including changing the scope of the proposed rule so as to include in the scope any activity, business, **material, or product** [emphasis added] that is not specifically included in the original scope of the proposed rule...” If such a change in the scope of a rule is made, the agency must stop work on the proposed rule and instead prepare a revised scope statement. A change to add additional Cycle 10 substances such as PFOA, PFOS, or TCE would clearly constitute a change in the scope statement in a “meaningful or measurable way” by including a “material” or “product” that was not included in the original scope statement.

3. The proposed scope statement should be clarified to make it clear that this rulemaking only addresses Cycle 10 bacteria.

Although incorporating other Cycle 10 substances would be a plain violation of ch. 227 rulemaking requirements under the currently proposed scope statement, there are other unnecessarily vague sections of the scope statement that should be amended. These adjustments would ensure that proper notice is provided to appropriate regulated entities, and also ensure the scope statement is lawful.

3-A. Relating clause for scope statement should be clarified.

First, it should be noted that the relating clause for SS 021-22 is nearly identical to SS 090-19, the scope statement for the aforementioned rejected groundwater rule. The only difference is noted below (underlined and in red):

Amendments to ch. NR 140 to set numerical standards to minimize the concentration of polluting substances in groundwater (Cycle 10 Bacteria)

It is unclear what the practical impact is for a statement in parentheses; such a convention does not appear in ch. 227 rulemaking. Use of parentheses in administrative rulemaking is discouraged by Legislative Council [see page 15 of the Legislative Council "[Administrative Rules Procedures Manual](#)"]. In addition, to our knowledge, using parenthetical statements in a relating clause is not a convention used or otherwise condoned by the Legislative Reference Bureau. Thus, it may be a violation of ch. 227 rulemaking requirements [see. 227.135(3)].

Thus, our organizations urge the DNR to adjust the relating clause of SS 021-22 to remove the parenthetical note, and instead explicitly state that this rulemaking is only for two Cycle 10 Bacteria substances.

3-B. The text of section #2 of the scope statement should be altered to explicitly state that only changes to total coliform bacteria standards and E. coli standards will be considered.

The first paragraph of section #2 indicates that the proposed rule will amend NR 140 to incorporate groundwater standards for total coliform bacteria and E. coli bacteria. No other substances are listed here (or anywhere else in this paragraph). A sentence should be added to this paragraph to explicitly state that this rulemaking will consider groundwater standards only for these two types of bacteria, and no other substance.

3-C. The statement "additional rule changes may be considered to accomplish the objectives described in this scope statement" should be significantly altered or removed.

In the fourth paragraph of section #2 of the scope statement, the Department states that "Additional rule changes may be considered to accomplish the objectives described in this scope statement." The immediately preceding paragraph describes the process of promulgating NR 140 groundwater standards, and notes that the Department is required to develop

numerical groundwater quality standards. Importantly, neither paragraph make any mention of limiting that process to simply total coliform bacteria and E. coli bacteria.

Taken together, the third and fourth paragraph of section #2 are overly broad. They may even suggest that the Department believes it has the authority to add additional groundwater standards recommended under NR 140 to this rulemaking.

Our organizations urge the DNR to clarify the aforementioned statement to make it explicitly clear that the only rule changes being considered apply to total coliform bacteria and E. coli bacteria.

4. Conclusion

To reiterate, any attempt by the Department to add other Cycle 10 substances under this rule would be an unlawful violation of ch. 227 rulemaking requirements, since the Department did not identify any Cycle 10 substances besides total coliform bacteria and E. coli bacteria.

However, the suggested changes above would further help clarify the Department's intent with this rulemaking, and signal the DNR's interest and willingness to work with the regulated community on this rule. They would also ensure that the scope statement complies with all applicable rulemaking requirements.

Thank you for considering our comments.

STATEMENT OF SCOPE

Department of Natural Resources

Rule No.: DG-04-22

Relating to: Amendments to ch. NR 140 to set numerical standards to minimize the concentration of polluting substances in groundwater (Cycle 10 Bacteria)

Rule Type: Permanent

1. Finding/nature of emergency (Emergency Rule only):

The rule will be proposed as a permanent rule.

2. Detailed description of the objective of the proposed rule:

The proposed rule will amend ch. NR 140, Wis. Adm. Code, to replace the existing total coliform bacteria standards with new state groundwater quality standards for *Escherichia coli* (*E. coli*) bacteria. The proposed rule will also transition total coliform bacteria from a public health groundwater quality standard to an indicator parameter.

The purpose of establishing groundwater standards is to protect public health. Some types of *E. coli* bacteria, when consumed, can cause acute (short-term) gastrointestinal illnesses causing diarrhea, abdominal discomfort, nausea, and vomiting. Less common effects are chronic (long-term) and include kidney failure, hepatitis, and bloody diarrhea. *E. coli* bacteria are a subgroup of coliform bacteria and are considered to be a much more specific indicator of fecal contamination, and the potential for pathogens to be present in drinking water, than total coliform bacteria. Infants and young children, the elderly, and people with compromised immune systems are at the highest risk for illness from pathogens in water.

Chapter 160, Wis. Stats., and ch. NR 140, Wis. Adm. Code, provide the process for setting numerical standards for consistent use in state regulatory programs to minimize the concentration of polluting substances detected in, or having a reasonable probability of entering, the groundwater resources of the state. Chapter 160, Wis. Stats., requires the department to develop numerical groundwater quality standards, consisting of enforcement standards, preventive action limits, and indicator parameters. Chapter NR 140, Wis. Adm. Code, establishes these Wisconsin state groundwater quality standards.

Additional rule changes may be considered to accomplish the objectives described in this scope statement. Additionally, errors and omissions in Appendix I to Table 1 (Public Health Groundwater Quality Standard) and clarification of definitions and terms will be addressed.

3. Description of the existing policies relevant to the rule, new policies proposed to be included in the rule, and an analysis of policy alternatives:

Chapter NR 140, Wis. Adm. Code, establishes numeric groundwater quality standards for substances of public health and welfare concern and creates a framework for implementation of those standards. The numerical standards, upon adoption, become the criteria for the protection of public health and welfare, to be achieved in groundwater regulatory programs concerning the substances for which standards are adopted. New and revised groundwater quality standards for substances of public health concern are based on recommendations developed by the Wisconsin Department of Health Services (DHS).

Chapter NR 140, Wis. Adm. Code, was adopted by the Natural Resources Board in 1985 to comply with ch. 160, Wis. Stats. Chapter 160, Wis. Stats., created as part of the 1983 Wisconsin Act 410 (The Groundwater Bill), requires the department to develop groundwater quality standards for substances detected in, or having a reasonable probability of entering, the groundwater resources of the state. The Natural Resources Board has approved amendments to ch. NR 140, effective in 1988, 1990, 1992, 1994, 1995, 1999, 2000, 2004, 2006, 2008 and 2011, to revise existing standards, establish new standards and to clarify rule language. There are now groundwater quality standards in ch. NR 140 for 138 substances of public health concern, 8 substances of public welfare concern, and 15 indicator parameters.

Substances of public health concern are regulated using groundwater quality standards at two levels: preventive action limit (PAL) and enforcement standard (ES). In accordance with ch. 160, Wis. Stats., ES groundwater quality standards for substances of public health concern are established based on recommendations received from DHS. PAL groundwater quality standards for substances of public health concern are set at either 20% of the concentration of the established ES, or at 10% of the concentration of the established ES if the substance has carcinogenic, mutagenic or teratogenic properties or interactive effects. The proposed rule will add a new ES and PAL to s. NR 140.10, Table 1, Wis. Adm. Code, for *E. coli* bacteria, based on recommendations from DHS.

Chapter 160, Wis. Stats. and ch. NR 140, Wis. Adm. Code, also establish preventive action limits for indicator parameters. Indicator parameters are standards that take into account background contamination and are used to monitor regulated activities and the potential for health and welfare parameter groundwater standards to be exceeded. Enforcement standards are not established for indicator parameters.

In 2016, the U.S. Environmental Protection Agency (EPA) and the Wisconsin state drinking water program changed how bacteria are regulated in public water systems as part of the Revised Total Coliform Rule. Chapter 809, Wis. Adm. Code, governing state drinking water standards, was amended to remove the maximum contaminant level standard for total coliform bacteria and replace it with a maximum contaminant level standard for *E. coli* bacteria. This change was made because studies show that *E. coli* bacteria are a more specific indicator of contamination from feces and because many coliform bacteria detected by total coliform tests are not pathogenic and occur naturally in the environment. The groundwater standards in ch. NR 140, Wis. Adm. Code, currently contain a groundwater preventive action limit and enforcement standard for total coliform bacteria. The proposed rule will update the groundwater standards to mirror the federal and state drinking water standards for bacteria by replacing total coliform

bacteria standards in s. NR 140.10, Table 1, Wis. Adm. Code with standards for *E. coli* bacteria, and adding an indicator parameter standard for total coliform bacteria in s. NR 140.20, Table 3, Wis. Adm. Code.

Policy alternatives

Section 160.07(5), Wis. Stats., directs the department to propose rules establishing DHS recommendations for ES for substances of public health concern. The alternative would be to not promulgate groundwater standards for *E. coli* bacteria. Without numerical health based standards for *E. coli* bacteria, groundwater regulatory programs will continue to be out of step with state and federal drinking water standards and will not adequately protect the public health of Wisconsin residents.

4. Detailed explanation of statutory authority for the rule (including the statutory citation and language):

Chapter 160, Wis. Stats., establishes an administrative process for developing numerical state groundwater quality standards to be used as criteria for the protection of public health and welfare by all state groundwater regulatory programs. Chapter 160, Wis. Stats., directs the department to use this administrative process to establish numeric groundwater quality standards for substances of public health or welfare concern, found in, or having a reasonable probability of being detected in, the groundwater resources of the state. The department is required to engage in rulemaking for all substances of public health concern for which DHS develops enforcement standard recommendations, pursuant to s. 160.07(5), Wis. Stats. The department is also required to establish by rule preventative action limits for all substances with enforcement standards, pursuant to s. 160.15(1), Wis. Stats. For substances without enforcement standards, s. 160.15(3), Wis. Stats., authorizes the department to establish indicator parameters that may show that preventive action limits may be exceeded.

Section 281.15, Wis. Stats., states that the department shall promulgate rules setting standards of water quality, applicable to the waters of the state, that protect the public interest, including the protection of public health and welfare, and the present and prospective future use of such waters for public and private water systems. Section 281.19(1), Wis. Stats., grants the department the authority to issue general orders and adopt rules applicable throughout the state for the construction, installation, use and operation of practicable and available systems, methods and means for preventing and abating pollution of the waters of the state.

In accordance with ch. 160, Wis. Stats., the reliability of sampling data is to be considered when determining the range of responses that a regulatory agency may take, or require, to address attainment or exceedance of a state groundwater quality standard at an applicable "point of standards application." Section 299.11, Wis. Stats., authorizes the department, in conjunction with the Department of Agriculture Trade and Consumer Protection (DATCP), to establish uniform minimum criteria for laboratories certified to conduct water analysis testing, and to establish accepted methodologies to be followed in conducting tests and sampling protocols and documentation procedures to be followed when collecting water samples for testing.

5. Estimate of amount of time that state employees will spend developing the rule and of other resources necessary to develop the rule:

The estimated staff time needed to develop these amendments to ch. NR 140, Wis. Adm. Code, is approximately 600 hours.

6. List with description of all entities that may be affected by the proposed rule:

The proposed groundwater standards for *E. coli* bacteria and total coliform bacteria would apply through other regulatory programs outside of ch. NR 140, Wis. Adm. Code, that regulate facilities, practices and activities which may impact groundwater quality.

Once adopted, numerical groundwater standards become the criteria for protecting public health, and are used in the regulation of:

- Solid and hazardous wastes
- Spills and remediation sites
- Wastewater and water quality
- Septic tanks
- Salt storage
- Fertilizer and pesticides, etc.

7. Summary and preliminary comparison with any existing or proposed federal regulation that is intended to address the activities to be regulated by the proposed rule:

There are no federal groundwater standards, and there is no parallel process for regulating groundwater contaminants at the federal level.

The EPA establishes health based drinking water maximum contaminant levels (MCLs). Federal MCLs, applicable at public water supply systems, are established based on scientific risk assessments and, in some cases, economic and technological considerations. As noted above, EPA's Revised Total Coliform Rule includes a maximum contaminant level for *E. coli*, but not for total coliform. Rather, it uses total coliform bacteria as an indicator of possible microbial pathways into a public drinking water system that triggers additional testing for *E. coli* bacteria.

8. Anticipated economic impact of implementing the rule (note if the rule is likely to have a significant economic impact on small businesses):

The department will examine the economic impact of the proposed rule when the rule is developed. At this time, anticipated economic impact of this rule is expected to be minimal, given that bacteria is already regulated and this rule will cause minimal or no changes to the regulatory regimes that rely on groundwater standards. Because *E. coli* bacteria are a subgroup of coliform bacteria there are no cases where the proposed *E. coli* bacteria standards would be exceeded where existing total coliform bacteria standards are not already being exceeded. Similarly, the specific economic impact to small businesses is indeterminant, but anticipated to be minimal.

State groundwater quality standards protect both public health and welfare. There are significant cost savings to establishing groundwater quality standards for *E. coli* bacteria, a more specific

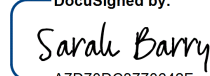
indicator of fecal contamination, and the potential for pathogens to be present in drinking water, than total coliform bacteria. Standards for a more specific indicator of the potential for pathogens to be present in drinking water will reduce exposure to bacteria which are known to cause acute (short-term) gastrointestinal illnesses causing diarrhea, abdominal discomfort, nausea, and vomiting and in some cases chronic (long-term) illness and kidney failure, hepatitis, and bloody diarrhea. Infants and young children, the elderly, and people with compromised immune systems are at the highest risk for illness from pathogens in water.

Human health impacts and drinking water treatment system costs to remove contamination may be avoided when groundwater pollution is reduced or eliminated. Adoption of groundwater quality rules and regulations by state regulatory programs minimizes the concentrations of polluting substances in groundwater, minimizes water treatment system costs and health care costs, while safeguarding public health and welfare.

9. Anticipated number, month and locations of public hearings:

The department anticipates holding one public hearing in the month of September, 2022. The hearing will be held by videoconference. The department will hold the hearing to gather stakeholder input on a rule package that is used widely statewide.

Contact Person: Bruce Rheineck
(608) 266-2104

DocuSigned by:

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For Preston D. Cole, Secretary

3/10/2022 | 3:32 PM CST

Date Submitted



Tony Evers

Office of the Governor | State of Wisconsin

March 18, 2022

By Electronic Mail Only

Dear Secretaries and Agency Heads:

On this day, I approved the following statement of scope pursuant to Wis. Stat. § 227.135(2):

- A statement of scope by the Department of Natural Resources, submitted March 10, 2022, relating to amendments to set numerical standards to minimize the concentration of polluting substances in groundwater (Cycle 10 Bacteria) (Wis. Admin. Code ch. NR 140).

Please direct any questions about this letter to my deputy policy director, Katie Domina.

Sincerely,

A handwritten signature in black ink that reads 'Tony Evers'.

Tony Evers
Governor

cc: Ryan Nilsestuen, chief legal counsel (ryan.nilsestuen1@wisconsin.gov)
Katie Domina, deputy policy director (katherine.domina1@wisconsin.gov)
DOA State Budget Office (SBOAdminRules@spmail.wi.gov)
Emma Esch, DNR (emma.esch@wisconsin.gov)