

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
PROPOSED AMENDMENTS TO)	R 22-18
GROUNDWATER QUALITY)	(Rulemaking – Public Water Supplies)
35 ILL. ADM. CODE 620)	

NOTICE OF FILING

TO: Mr. Don Brown,
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(VIA ELECTRONIC MAIL)

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(See Persons on Attached Service List)

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board, **THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY’S PRE-FILED ANSWERS TO ILLINOIS ENVIRONMENTAL REGULATORY GROUP’S QUESTIONS**, copies of which are hereby served upon you.

Respectfully Submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

Dated: March 7, 2022

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By: /s/ Sara Terranova
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THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY’S PRE-FILED ANSWERS TO THE ILLINOIS ENVIRONMENTAL REGULATORY GROUP’S QUESTIONS

The Illinois Environmental Protection Agency (“Illinois EPA” or “Agency”), by and through its attorneys, and pursuant to the Illinois Pollution Control Board’s (“Board”) Notice of Hearing dated January 13, 2022, submits the following Pre-filed Answers to the Illinois Environmental Regulatory Group’s (“IERG”) Questions for the hearing scheduled on March 9-10, 2022.

Questions Directed to Mr. Lynn Dunaway

Changes to Class I: Potable Resource Groundwater

IERG Question 1

Please provide an illustration of how the addition of proposed subsection (a)(5) to Section 620.210 will be implemented.

Agency Answer 1

Persons conducting remedial activities must already use the Source Water Protection Area mapping tool available on the Agency’s website to identify potable wells and setback zones. The person would simply have to turn on the Adopted Maximum Setback zone layer, the Phase I WHPA layer and the Phase II WHPA layer of the mapping tool. If their site falls within the mapped area, then the groundwater is Class I

- a) *What additional areas, not currently defined as Class I waters, will become Class I waters as a result of the proposed change?*

Agency Answer 1(a)

The additional areas will be immediately adjacent to community water supply wells. The additional area that would be added is best illustrated on the maps the Agency has submitted in response to Board Question 7.

PFAS Sampling Effort at Community Water Supplies

IERG Question 2

What were the detection levels, guidance levels, and/or minimum reporting levels used for each PFAS compound in the community water supply sampling conducted by Illinois EPA?

Agency Answer 2

The detection level is based upon U.S. EPA Method 537.1 for drinking water. The detection level and minimum reporting levels for all 18 PFAS parameters detected by this method is 2.0 ng/L.

a) What was the basis for each?

Agency Answer 2(a)

U.S. EPA Method 537.1 for PFAS parameters in drinking water is the basis for concentration.

b) How do they compare to the groundwater quality standards proposed in this matter?

Agency Answer 2(b)

The proposed 620 groundwater quality standards are greater than the proposed parameters (set at the Human Threshold Toxicant Advisory Concentration in Appendix A), except for PFOA (perfluorooctanoic acid) which is set equal to the reporting limit for Method 527.1 (the LLOQ or LCMRL as defined in Section 620.110).

IERG Question 3

What are the final results of Illinois EPA's PFAS sampling efforts at community water supplies?

Agency Answer 3

The Illinois EPA PFAS Sampling in Community Water Supplies completed the sampling phase of the project in January 2022. A review of the analytical result and final report is currently being prepared by the U.S. Geological Survey and a final report is not expected to be received by the Illinois EPA before February 2023 and no later than August 2023.

a) How might those findings relate to the proposed groundwater rules in this rulemaking?

Agency Answer 3(a)

The finding of the Illinois EPA PFAS Sampling in Community Water Supplies project will not affect or relate to this rulemaking for revisions to the 620 Groundwater Standards.

IERG Question 4

It is IERG's understanding that Illinois EPA is in the process of drafting a report regarding the PFAS sampling effort at community water supplies. What is the status of that report?

Agency Answer 4

The Illinois EPA PFAS Sampling in Community Water Supplies completed the sampling phase of the project in January 2022. A review of the analytical result and final report is currently being prepared by the U.S. Geological Survey and a final report is not expected to be received by the Illinois EPA before February 2023 and no later than August 2023.

a) Does the final report being drafted include any recommendations based on the sampling data? If so, what are the recommendations?

Agency Answer 4(a)

The final Illinois EPA PFAS Sampling in Community Water Supplies report is not expected to include any recommendations that relate to the rulemaking revision to the 620 Groundwater Standards.

b) Are you aware whether the final report discusses Illinois EPA's development of the groundwater standards proposed in this rulemaking?

Agency Answer 4(b)

The final Illinois EPA PFAS Sampling in Community Water Supplies report is not expected to include any recommendations that relate to the rulemaking revision to the 620 Groundwater Standards.

IERG Question 5

Outside of community water supplies, where is PFAS found in Illinois?

Agency Answer 5

Since the 1940's, PFAS compounds have been used in a wide range of consumer products, industrial processes, and in some fire-fighting foams. The Illinois EPA is aware that this has resulted in PFAS being released into the air, water, and soil of the state of Illinois.

a) What is the basis for your answer to the above question?

Agency Answer 5(a)

The Agency considers this question outside of the scope of review of the 620's Groundwater Quality Standards evaluation.

b) Why did Illinois EPA prioritize a PFAS sampling program focused on community water supplies over other areas of the environment that PFAS may exist?

Agency Answer 5(b)

The Illinois EPA received specific funding to conduct the PFAS Sampling In Community Water Supplies investigation.

Relationship between this Rulemaking and Other PFAS Efforts

IERG Question 6

It is IERG's understanding that Illinois EPA is in the process of developing an MCL for PFAS for drinking water. What is the status of that effort?

Agency Answer 6

The Illinois EPA is in the initial Phase of Developing MCLs for PFAS parameters in drinking water.

a) How does the Illinois EPA develop an MCL?

Agency Answer 6(a)

The Agency considers this question unrelated to the rulemaking for revisions to the 620 Groundwater Quality Standards.

- b) In what ways is the process of developing an MCL similar to the development of standards proposed in this matter? In what ways is the process different?*
- c) How does the development of an MCL for PFAS for drinking water relate to this groundwater rulemaking?*

Agency Answers 6(b) and (c)

The Agency considers the development of an MCL for PFAS compounds unrelated to the rulemaking for revisions to the 620 Groundwater Quality Standards.

- d) Why did Illinois EPA choose to move forward with this groundwater rulemaking before developing and proposing an MCL for PFAS for drinking water?*

Agency Answer 6(d)

The development of MCL for PFAS compounds in drinking water is independent of the rulemaking revisions to the 620 Groundwater Quality Standards.

IERG Question 7

Is Illinois EPA aware of USEPA's aggressive schedule to propose National Primary Drinking Water regulations for PFAS by Fall of 2022?

Agency Answer 7

The Illinois EPA is aware that the USEPA is planning to propose/have proposed National Primary Drinking Water regulations for PFAS compounds.

- a) If so, is Illinois EPA aware of the current status of that effort?*

Agency Answer 7(a)

The Illinois EPA is unaware of the current status of the USEPA National Primary Drinking Water regulations.

- b) Why did Illinois EPA choose to move forward with this groundwater rulemaking in advance of the rapidly progressing federal drinking water standards?*

Agency Answer 7(b)

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations.

- c) *What action will Illinois need to take once a federal drinking water standard for PFAS is promulgated?*

Agency Answer 7(c)

Any actions related to the USEPA Federal Drinking Water Standard for PFAS are independent of the rulemaking for revision of the 620 Groundwater Quality Standards.

IERG Question 8

How does USEPA's efforts concerning PFAS relate to this groundwater rulemaking?

Agency Answer 8

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations.

IERG Question 9

Is Illinois EPA aware of USEPA's "PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024" announced on October 18, 2021?

Agency Answer 9

Yes, the Illinois EPA is aware of this effort.

- a) *Is Illinois EPA aware of USEPA's goals within the Strategic Roadmap, including the first central directive, which is as follows: "Invest in research, development, and innovation to increase understanding of PFAS exposures and toxicities, human health and ecological effects, and effective interventions that incorporate the best available science."?*

Agency Answer 9(a)

Yes, the Illinois EPA is aware of this effort.

- b) *Is Illinois EPA aware that on November 16, 2021, USEPA Administrator Regan tasked the Science Advisory Board with reviewing draft scientific documents for PFOA and PFOS?*

Agency Answer 9(b)

Yes, the Illinois EPA is aware of this effort.

- c) *Why has Illinois EPA decided to promulgate groundwater standards now before we have more settled science that is forthcoming?*

Agency Answer 9(c)

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations and the "USEPA Strategic Roadmap".

IERG Question 10

Is Illinois EPA aware of the ongoing PFAS assessments by USEPA's Integrated Risk Information System ("IRIS"), and that IRIS assessments for PFHxS and PFNA are expected to be issued later this year?

- a) Will the results of the IRIS assessments have any impact on the proposed groundwater standards?*

Agency Answer 10

Illinois EPA is aware of and monitoring the ongoing IRIS assessments for PFHxS and PFNA. As IRIS is a Tier 1 source for toxicity data when developing Part 620 standards, the toxicity information for PFHxS and PFNA will be reviewed and amendments considered after the assessments are peer-reviewed, released for public comment, and issued as final documents.

IERG Question 11

Did Illinois EPA consult with USEPA regarding this groundwater proposal prior to filing it with the Board?

Agency Answer 11

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations and the "USEPA Strategic Roadmap".

- a) If so, please summarize USEPA's comments on the proposal. If not, why?*

Agency Answer 11(a)

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations and the "USEPA Strategic Roadmap".

IERG Question 12

It is IERG's understanding that some other states have moved forward with proposals for addressing PFAS in drinking water regulations. Is Illinois EPA aware of any of those efforts?

Agency Answer 12

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations, the "USEPA Strategic Roadmap", and the regulatory efforts in other states.

- a) If so, did Illinois EPA consider taking a similar approach as those states (i.e., of addressing drinking water prior to groundwater standards) when developing its PFAS strategy?*

Agency Answer 12(a)

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations, the "USEPA Strategic Roadmap", and the regulatory efforts in other states.

- b) Is Illinois EPA aware of any other states that are proposing PFAS groundwater standards before proposing PFAS drinking water standards?*

Agency Answer 12(b)

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations, the "USEPA Strategic Roadmap," and the regulatory efforts in other states.

- i) If so, how does the proposal in this rulemaking compare to the other states' proposals?*

Agency Answer 12(b)(i)

The Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards is independent of USEPA's proposed National Primary Drinking Water regulations, the "USEPA Strategic Roadmap", and the regulatory efforts in other states.

IERG Question 13

Assuming the Board adopts Illinois EPA's proposal in this rulemaking, and the Illinois EPA moves forward with developing an MCL for PFAS for drinking water in the future, is it possible that the PFAS MCL for drinking water could be less stringent than the PFAS groundwater standard?

Agency Answer 13

The proposed revisions to the 620 Groundwater Standards are independent of MCL development.

Other

IERG Question 14

How would a facility or property owner that has found PFAS present on its property determine whether the cause of the PFAS was an on-site impact or off-site impact?

Agency Answer 14

The on-site or off-site origin of PFAS would be demonstrated in the same manner as any other contaminant, with the use of up gradient and down gradient wells.

IERG Question 15

Illinois EPA accepted comments on the groundwater standards proposed in this rulemaking prior to filing with the Board. Does the proposal in this rulemaking take into account those comments?

- a) If so, please identify the comments that were taken into account and identify the changes to the proposed rules based on those comments.*

Agency Answer 15

The Illinois EPA reviewed and considered all comments presented prior to filing the proposed amendments.

IERG Question 16

Has the change in the federal administration affected Illinois EPA's PFAS strategy and timeline? If so, how?

Agency Answer 16

The change in the federal administration has not affected the Illinois EPA's rulemaking effort for the revision of the 620 Groundwater Quality Standards.

IERG Question 17

Is USEPA required to approve the proposed rules in this proceeding, if adopted by the Board?

Agency Answer 17

Part 620 is a State rule and therefore does not require the approval of USEPA.

Questions Directed to Ms. Carol Hawbaker

IERG Question 18

How did Illinois EPA determine to add Gen X as a chemical for a standard after Illinois EPA received comments on the proposed rules before filing with the Board?

Agency Answer 18

New toxicity data became available enabling Illinois EPA to calculate a standard. On October 21, 2021, U.S. EPA Office of Water issued a final human health toxicity value, an oral reference dose (RfD) of 3E-06 mg/kg-day for HFPO-DA (GenX). HFPO-DA has been detected in Illinois groundwater; therefore, HFPO-DA meets the Groundwater Protection Act requirements at 415 ILCS 55/8(a) for inclusion in the groundwater quality standards.

IERG Question 19

It was indicated that, for the proposed standards for boron, copper, fluoride, and selenium that the basis for those standards is the 1972 "Water Quality Criteria." What was the basis for the Agency's determination that 2022 was the appropriate time to add standards for those constituents?

- a) *Are you aware whether their inclusion in any previous revisions to Part 620 was considered by the Agency, and if so, why did the Agency elect to not include them previously?*
- b) *Please elaborate as to the specific uses for which the proposed standards are protective, i.e., which crops or livestock are sensitive to those constituents?*
- c) *Is the Agency aware of any incidents in Illinois where harm to livestock or crops has occurred due to the presence of these constituents in the groundwater? If so, please provide*

examples.

- d) *Have any additional studies been performed relative to these constituents since their inclusion in the 1972 "Water Quality Criteria" document or is the information contained therein reflective of the state of the science for those?*

Agency Answer 19(a)-(d)

The proposed groundwater quality standards for boron, copper, fluoride, and selenium are based on values listed in "Water Quality Criteria," by the National Academy of Sciences (1972). In the Board's October 4, 2012, Final Opinion and Order Before for R08-18, the Board stated:

"IERG expressed concern regarding the Agency's reliance upon the National Academy of Sciences' 1972 *Water Quality Criteria* document in basing some Class II standards upon livestock watering or irrigation factors. The Board found that the Agency properly relied upon the 1972 document because some Class II standards are based upon support of a use other than potability (*e.g.*, livestock watering, irrigation, industrial use) where the different use requires a more stringent standard. *Id.* at 18."

The boron groundwater quality standard remains unchanged from previous promulgations of Part 620. The basis of the boron groundwater quality standard is beneficial use for irrigation of crops. Illinois EPA proposes groundwater quality standards based on the beneficial use of groundwater in support of livestock for copper and fluoride, and irrigation of crops for selenium. These values are more stringent than the health-based concentration for boron, the action level for copper, and the MCLs for fluoride, and selenium. Refer to Attachments 1I 16, starting on page 4,806; 1I 17, starting on page 4,809; 1I 19, starting on page 4,833; and 1I 20, starting on page 4,834 of the document filed by the Agency on December 7, 2021. Illinois EPA is not aware of specific instances where livestock or crops have been harmed; however, the goal is to prevent instances of harm.

IERG Question 20

Please describe your role as a member of USEPA's ECOS PFAS Science Group.

- a) *In that role, please describe your interactions with the federal team working on the new drinking water standards.*

Agency Answer 20

The Environmental Council of the States ("ECOS") PFAS group collects information from states and the U.S. EPA regarding actions being taken to address PFAS within individual states, including the promulgation of state PFAS drinking water, groundwater, and surface water standards. The Science group discusses updates to toxicity data, chemical-specific data, treatment technologies, sampling and analytical methods, and source reduction. My interactions are as a representative from Illinois and to provide updates of Illinois EPA's development of PFAS standards.

Respectfully Submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

Dated: March 7, 2022

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By: /s/ Sara Terranova
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CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that I have electronically served **THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S PRE-FILED ANSWERS TO THE ILLINOIS ENVIRONMENTAL REGULATORY GROUP'S QUESTIONS** on March 7, 2022, to the attached service list. I further certify that my email address is sara.terranoa@illinois.gov and that the email transmission took place before 5:00pm.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

Dated: March 7, 2022

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