



March 22, 2024

Mr. Steve Whitlock  
Engineering and Analysis Division  
Office of Water (4303T),  
Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

Subject: Docket ID No. EPA–HQ–OW–2021–0736, Clean Water Act Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Point Source Category

Dear Mr. Whitlock,

Attached are the comments of the National Ground Water Association regarding the proposed rule: Clean Water Act Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Point Source Category.

If you have any questions or need additional information, please contact me at your convenience.

Thank you for the opportunity to review this proposed rule.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Job", is positioned above the typed name.

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Attachment: National Ground Water Association Comments



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**NATIONAL GROUND WATER ASSOCIATION**

**Comments on:**

**Environmental Protection Agency Proposed Rule  
“Clean Water Act Effluent Limitations Guidelines and Standards for the Meat and Poultry  
Products Point Source Category”**

Published on: 01/23/2024

Comments Due: 03/25/2024

Federal Register Citation: 89 FR 4474

Code of Federal Regulations Reference: 40 CFR 432

Agency/Docket Numbers: EPA-HQ-OW-2021-0736; FRL-8885-01-OW

**Summary:**

The Environmental Protection Agency (EPA) proposes a regulation to revise the technology-based effluent limitations guidelines and standards (ELGs) for the meat and poultry products (MPP) point source category comprised of 5,055 facilities nationwide. The proposed rule would improve water quality and protect human health and the environment by reducing the discharge of nutrients and other pollutants to the nation's surface waters. EPA is proposing several regulatory options, including the preferred option discussed in this notice. The preferred option includes new phosphorus limits for large direct dischargers based on chemical phosphorus removal technology, more stringent nitrogen limits for large direct dischargers based on full (not partial) denitrification, and new conventional pollution limits (pretreatment standards) for large indirect dischargers based on very basic wastewater treatment such as screening and dissolved air flotation technologies to prevent passthrough and interference at publicly owned treatment works. The preferred option is estimated to cost \$232 million annually and reduce pollutant discharges by approximately 100 million pounds per year.

Additionally, EPA is considering chloride limits for certain wastestreams to remove salts from facility discharges. About 70 percent of MPP facilities are discharging wastewater with chloride concentrations exceeding ambient water quality and secondary drinking water standards. EPA is considering salt recycle/evaporation systems as the technology basis for establishing BAT limitations to control chlorides discharged in high chlorides waste streams in any final rule. EPA is considering effluent limitations for chlorides for direct and indirect discharging facilities in any subcategory with production greater than 5 million pounds per year with high chlorides processes. Analysis indicates that these technologies may be available, economically achievable, and have acceptable non-water quality environmental impacts.

Electronic Link to the proposed rule:

<https://www.federalregister.gov/documents/2024/01/23/2023-28498/clean-water-act-effluent-limitations-guidelines-and-standards-for-the-meat-and-poultry-products>

## **National Ground Water Association Comments**

### Overall

The National Ground Water Association supports safe water supply to support the agricultural industry, including meat and poultry production. The Association does not support processes that potentially would contaminate groundwater which in many cases is the source of water supply to these meat and poultry production facilities as well as neighboring private and public water systems. We do not support protection of surface water at the expense of groundwater quality, based on the proposed rule and its use of evaporation ponds to remove chloride salts from processing brine as proposed. If permitted and used, evaporation ponds should be lined, based on appropriate design and construction, and underlying groundwater monitored through monitoring wells or alternative geophysical techniques.

### Brine Source Reduction

Assessment should be done of brine as a resource for certain uses and reduce the need for disposal.

### Establishing Zero Discharge of Chlorides

Does the establishment of zero discharge of chlorides mean zero discharge to surface water only? Discharge to unlined evaporation ponds has been documented in the references cited in the preamble to cause groundwater contamination. Since groundwater and surface water are hydrologically connected, these contaminated groundwaters may reach surface water at a later time. Additionally, as documented in the Preamble's references, contaminated groundwater has also previously reached nearby wells for some locations.

### Groundwater Not a Subsurface Sink for Brine and Salt

The rule focuses on surface water quality protection and does not adequately address protection of groundwater quality. Specifically, the proposed rule would enable the use of evaporation ponds to reduce chlorides in brine as a wastewater needing disposal. Ponds would need to be designed and have adjacent monitoring wells or apply other geophysical measurement techniques to ensure that chloride does not enter the subsurface and contaminate groundwater directly or through mobilization from rock of heavy metals including arsenic, radium, and uranium, all of which are regulated by standards for safe drinking water under the Safe Drinking Water Act.

As described in the Preamble, potential groundwater contamination is likely under current operating practices<sup>1</sup> and apparently not well understood as the Preamble indicates that certain circumstances have not been evaluated (e.g., sludge contaminants impacting private wells and children's health).

#### Definitions needed for "evaporation ponds" and "streamside evaporation"

The draft rule uses the terms "evaporation ponds" and "streamside evaporation" for a preferred brine disposal technology. The meaning of "evaporation ponds" is fairly clear since it is generally described at section V.5.b. but is not included in the proposed rule. Additionally, a definition of "streamside evaporation" is not included in the proposed rule. "Streamside evaporation" could be interpreted as a broader category that could include other approaches to brine disposal beyond "evaporation ponds". A definition for streamside evaporation would clarify the intended meaning and expectation of allowing other technology to be used and which type of technology that would include. Both terms should be included in the rule.

#### Effectiveness of Evaporation Pond Technology across the Nation

The potential effectiveness of "evaporation ponds" to dispose of brine waste at MPP facilities is described in the Preamble at section V.5.6.

The Preamble states that "This technology relies on solar evaporation and is best in dry/semi-dry climates." In much of the eastern US, where precipitation exceeds evaporation, brine pond overflow has the potential to impact groundwater and surface water. In other areas where precipitation is less than evaporation, short term intense precipitation could exceed available capacity in "evaporation ponds" also resulting in pond overflow potentially impacting groundwater and/or surface water. More specific information is needed regarding areas of the country where "evaporation ponds" would be allowed and a basis for that determination.

Also, the description indicates that "evaporation ponds" should be lined. However, success of a liner at preventing seepage of brine waste to underlying groundwater depends on liner design and construction. NGWA agrees that evaporation ponds should be lined. The preamble references examples of significant groundwater contamination resulting in dire illness among the population consuming the contaminated groundwater. Additionally, monitoring wells should be installed or other geophysical measurement techniques applied to ensure that breakthrough of the pond lining does not occur, or if breakthrough does occur, that the contamination is discovered early through monitoring or measurement so that corrective action can be taken promptly. Additional requirements for liner construction and/or performance specifications should be included in the rule to ensure successful use of this disposal option.

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<sup>1</sup> Fears, Darryl. April 13, 2021. A Poultry Plant, Years of Groundwater Contamination And, Finally, A Court Settlement. The Washington Post.

The Preamble at VI.C.2, states “Based on conversations with industry, most MPP facilities use drinking water sources (public water supplies or well water) for all source water.” The MPP facilities that rely on wells have an interest in protecting groundwater sources as their water supply.

Additional information should be provided regarding where in the US the ‘evaporation ponds’ brine disposal option would be allowed and the basis for that determination. Also, additional information should be provided regarding liner construction and/or performance specification to achieve intended performance and then insert requirements in the rule addressing requirements for liner design, construction and performance.

#### Determination of Nutrient Content in Private Well Water

Preamble Section XV.G with regard to E.O. 13045 Protection of Children from Environmental Health Risks and Safety Risks states: “Nutrient concentrations in private well water may be impacted by any increase in land application of sludges expected to occur under the proposed rule options. Because land application locations and frequencies change over time, EPA was not able to estimate potential impacts of this rulemaking on private well water quality, and therefore the health of children in affected households. Taken together, it is underdetermined how children may be impacted under the implementation of this rule.” Land-applied sludges from meat and poultry processing facilities should be managed and controlled to protect groundwater. EPA should further evaluate this significant potential impact, especially with the issue of nitrate/nitrite causing methemoglobinemia as discussed for public water systems elsewhere in this same section. The Preamble notes that “[m]ore than half of the permits reviewed also included water quality-based limits or monitoring requirements for total Kjeldahl nitrogen (TKN) and nitrate/nitrite.”

EPA should provide additional information regarding nutrient impacts on private well water quality to more fully assess potential impacts before finalizing the rule.

#### Facility Size Required to Report

Regarding size of facility (producing 5 million pounds or more per year) required to report, EPA should conduct an assessment of facility location even for smaller facilities and determine proximity to public and private wells. Private wells of nearby households could be vulnerable and impact children, sensitive adults and minority groups. Facility size may not be an effective or useful criterion on which to base reporting requirements as a small facility may have a more detrimental effect than a larger facility if unregulated.

## Assessment of Potential Impact to Nearby Wells

Assessment should be made of the potential impact to wells and groundwater users near meat and poultry processing facilities that would discharge brine to evaporation ponds. EPA has established a review area employed by other EPA programs of 2 miles around a potential source of groundwater contamination<sup>2, 3</sup>. This review area could be employed to estimate the number private and public wells that may be impacted by pollutant releases from meat and poultry processing facilities. Also, EPA has established under the Safe Drinking Water Act wellhead or source water protection areas around wells or intakes that may manage pollutants that could affect their source waters.<sup>4</sup> Some geologic conditions may contribute to more rapid movement of contaminants to and in groundwater, such as sand and gravel or karst aquifers.<sup>5</sup> Small water systems, most of which use groundwater as their source water, are often in rural areas and may be near meat and poultry processing facilities. EPA has developed the Drinking Water Mapping Application to enable assessment of proximity of contaminant sources to water systems.<sup>6</sup>

## Significance of Groundwater-Surface Water Interaction

The U.S. Geological Survey reports that groundwater discharge accounts for an average of 40 percent of stream baseflow and a significant discharge to most wetlands.<sup>7</sup> Some surface waters may have a higher percentage of baseflow supported by groundwater discharge. Evaporation ponds that leak chloride, nutrients and other pollutants that reach CWA jurisdictional surface water via groundwater may need to be evaluated for “functional equivalent” discharge, based on the 2020 Supreme Court ruling No. 18–260, County of Maui, Hawaii v. Hawaii Wildlife Fund et al. EPA should not be protecting surface water quality at the expense of groundwater quality and leave the results for states to deal with.

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<sup>2</sup> U.S. Environmental Protection Agency (USEPA). 1986. Guidelines for Ground-Water Classification under the EPA Ground-Water Protection Strategy. [https://archive.epa.gov/epawaste/hazard/web/pdf/gw\\_es.pdf](https://archive.epa.gov/epawaste/hazard/web/pdf/gw_es.pdf) (Accessed March 11, 2024).

<sup>3</sup> U.S. Environmental Protection Agency (USEPA). 2024. Selecting a Groundwater Remedy. <https://www.epa.gov/superfund/selecting-groundwater-remedy> (Accessed March 11, 2024).

<sup>4</sup> U.S. Environmental Protection Agency (USEPA). 2023. Delineate Source Water Protection Areas. <https://www.epa.gov/sourcewaterprotection/delineate-source-water-protection-area> (Accessed March 11, 2024).

<sup>5</sup> U.S. Environmental Protection Agency (USEPA). 1985. DRASTIC: A Standardized System For Evaluating Ground Water Pollution Using Hydrogeologic Settings. [https://cfpub.epa.gov/si/si\\_public\\_record\\_report.cfm?Lab=NRMRL&dirEntryId=126933](https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NRMRL&dirEntryId=126933) (Accessed March 11, 2024).

<sup>6</sup> U.S. Environmental Protection Agency (USEPA). 2023. Drinking Water Mapping Application to Protect Source Waters. <https://www.epa.gov/sourcewaterprotection/drinking-water-mapping-application-protect-source-waters-dwmaps> (Accessed March 11, 2024).

<sup>7</sup> U.S. Geological Survey (USGS). 1986. National Water Summary 1985. Circular 2300; USGS. 2005. Communication, D.M. Wolock.

## Corrective Action Responsibility for Direct and Mobilized Contamination

Brines with chlorides from meat and poultry processing facilities can directly contaminate groundwater and can bring into solution contaminants of concern from increased corrosivity of water acting on rock sources including release of arsenic, radium, uranium and other heavy metals, presenting risks to public health from groundwater consumption and adding treatment costs for groundwater supplies of drinking water. Who will take responsibility for corrective action should groundwater become contaminated by brine pollutants that may include nitrogen, phosphorus, oil & grease, BOD, TSS, and chloride as well as the contaminants brought into solution from the direct pollutant release? Some financial assurance requirement should be included in the rule to pay for corrective action.

### Specific Rule Recommendation

The rule should specifically address groundwater protection and include:

#### § 432.XYZ Protection of Groundwater

Meat and poultry product processing sites discharging to evaporation ponds must:

- a. Have the ponds lined so as not to allow release of brine to the subsurface within 180 days of the effective date of the rule
- b. Have the geology under and surrounding the discharge evaporation ponds evaluated to determine the vulnerability of groundwater to potential contamination within 90 days of the effective date of the rule
- c. Have installed a sufficient number of monitoring wells or applied other geophysical measurement techniques to detect any release potentially impacting groundwater quality through regular sampling or measurement, including elevation of the groundwater to determine flow direction within 180 days of the effective date of the rule
- d. Have a corrective action plan in place not later than 90 days from the effective date of the rule in the event of lining breakthrough
- e. Have an adequate financial assurance policy in place to fund corrective action, if needed.

### **Basis for the Interest of the National Ground Water Association (NGWA) in Meat and Poultry Processing Facilities Pollutant Discharge**

NGWA, the largest trade association and professional society of groundwater professionals in the world, represents over 10,000 groundwater professionals within the United States and internationally. NGWA represents four key sectors: scientists and engineers, water-well contractors, manufacturers and suppliers of equipment to make groundwater development possible. NGWA's mission is to advocate for and support the responsible development, management, and use of groundwater.

Over 40 million people in the United States rely on private wells and over 92 million people are served by groundwater from community water systems. NGWA views groundwater and the subsurface as a significant natural resource that should be sustainably managed for current and future use.

A concise summary of the position of the National Ground Water Association on groundwater protection related to potential sources of contamination is:

- Control of potential and active sources of contamination should be a national objective, reducing the need for remediation of groundwater.
- Aquifers should be protected from contamination for existing or potential beneficial uses.
- Methods available to control point source contamination include land-use controls while remediation approaches should be flexible and practical to recognize different situations.

Thank you for the opportunity to comment on this proposed rule.