



July 1, 2019

Jesse Pritts
Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

Via email: oil-and-gas-study@epa.gov

Re: AMWA comments on *Study of Oil and Gas Extraction Wastewater Management Under the CWA* (EPA-821-R19-001)

Dear Mr. Pritts:

The Association of Metropolitan Agencies (AMWA) is an organization representing the largest publicly owned drinking water utilities in the United States. AMWA appreciates the opportunity to comment on EPA's *Study of Oil and Gas Extraction Wastewater Management Under the CWA* and related questions. The protection and sustainability of water supplies for communities is of paramount importance to AMWA members. EPA's regulatory and non-regulatory programs for pollution prevention protections are critical. The prevention of pollution from entering a source water – such as through the NPDES program – is more cost-effective than drinking water treatment. EPA should use all authorities it has to protect source waters, including the use of the Clean Water Act to prevent pollutants – such as those present in oil and gas produced water – from reaching a drinking water supply source.

AMWA recognizes that inland oil and gas production is a very water-intensive enterprise and that states west of the 98th meridian and elsewhere are interested in exploring additional opportunities for produced water management including additional discharge options for its treatment. AMWA urges EPA to perform additional research to fully understand both the implications of potential NPDES discharge for wastewater from oil and gas extraction and of reusing produced water outside of the well field.

In EPA's *Study of Oil and Gas Extraction*, EPA's cites data from the USGS National Produced Waters Geochemical Database that shows a vast range of chemical constituents and concentrations of these contaminants in produced water. Research is needed to better understand

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the variation in volume, quantity, and quality of wastewater and produced water in order to inform environmental and health risk assessments.

EPA's "study" might better be characterized as an assessment as it is not a scientific study but rather a document that summarizes the landscape of produced water characteristics and current wastewater management approaches. It also summarizes the interests of individuals from stakeholder groups who participated in EPA's stakeholder meetings regarding produced water management. It is unclear how summary statements in this document would be used to inform policy decisions, although one can infer from Section 5 that EPA's outreach to stakeholders was intended to evaluate interest among states, Tribes, and industry for "produced water management under the CWA."

Before proceeding with a policy decision about the discharge or use of treated produced water outside of the well field, more research must be done to understand the implications of discharging or reusing treated produced water outside the oil and gas sector. An improved understanding of produced water quality will help inform health and environmental considerations for a policy decision.

In addition, large quantities of salts would be produced from increased treatment of produced water for recycling or reuse therefore research is needed to better understand brine and byproduct management methods. EPA must ensure that source water is protected and that no introduction of contaminants from oil and gas wastewaters to potential drinking water sources is allowed. In addition, AMWA is concerned about the unintended consequences to human health and the environment via reuse of produced waters outside the well field for agriculture or environmental restoration.

As EPA continues to explore wastewater management policy considerations for oil and gas extraction wastewater, the agency should ensure its work is in alignment with its Water Reuse Action Plan (docket EPA-HW-OW-2019-0174). Together with other water sector associations, AMWA is submitting separate comments on the Water Reuse Action Plan which include recommendations related to the reuse of oil and gas produced water.

AMWA is also providing comments on a few questions that EPA identified on its website about this study.

What non-regulatory steps should EPA take to encourage re-use/recycle of produced water?

EPA could develop a memorandum or policy to states to reiterate the allowance for reuse for produced water in the well field for oil and gas production. However, outside of the well field, EPA should not take steps to encourage the reuse of produced water until additional research has been done to understand and make available information on the variation, quantity, and quality of produced water.

AMWA is very concerned about unintended consequences regarding the discharge of produced water to waters of the United States. Therefore, EPA should continue to ensure that the quality of groundwater and waters of the U.S. are protected.

Before produced water can be reused outside the oil and gas sector, a better assessment of the risks is needed. An improved understanding of produced water quality will help inform health and environmental considerations for a policy decision. In addition, large quantities of salts would be produced from increased treatment of produced water for recycling or reuse. Research should be done to better understand brine and byproduct management.

According to the Groundwater Protection Council *Produced Water Report* released in June, many site-specific factors will determine whether produced water is suitable for reuse outside of the well-field. In addition to water quality and variability of water volumes, there are also logistical considerations for transport of produced water, market considerations, and state regulation and water rights. Most of these considerations are outside of EPA's purview.

Considering the cost of transporting and treating produced water, would revising 40 CFR Part 435 to allow for broader discharge of produced water shift the manner in which produced water is currently handled?

Unless EPA provides additional detail about the kind of revisions being considered under 40 CFR Part 435, it is impossible to know whether revising this section of the regulation would allow for broader discharge of produced water. In order for AMWA to answer this question, there would need to be a description of potential regulatory revisions and scenarios as well as additional information about the kind of treatment that could be implemented on produced water so that it is at a quality acceptable for discharge under a future effluent guidelines scenario.

As noted in EPA's document, produced water is complex, varying greatly across sites and within a single well site with regard to the components and volumes of constituents present. Therefore, additional research must be done to understand and manage potential risks to human health and the environment before such a revision is proposed. EPA must ensure that any changes to 40 CFR Part 435 do not lessen protections to the environment or public health.

Should EPA continue to distinguish between discharges from onshore oil and gas facilities located East and West of the 98th meridian or establish a national policy irrespective of geographic location?

EPA should establish a national policy irrespective of geographic location and develop and enforce a baseline requirement for oil and gas pipeline installations to help protect underground sources of drinking water. AMWA is aware of a patchwork of regulations implemented across the country related to underground injection of produced water. This has resulted in an

inconsistent oversight nationwide of oil and gas development, which has in some cases resulted in harm to drinking water sources and residents living near the development sites.

AMWA recommends that EPA develop baseline requirements that include site-specific geologic investigation of the activities, predictive modeling of environmental impacts of the well in advance of the permit issuance, and ongoing monitoring of well performance to ensure that the well is performing without compromising underground sources of drinking water due to migration of fluids and gases.

What steps could EPA take that might incent re-use of produced water within and outside of the oilfield?

EPA should not take any actions that would suggest that produced water is being considered for indirect potable reuse and/or direct potable reuse. AMWA is very concerned about unintended consequences to human health and the environment regarding the potential reuse of produced water in agriculture or for environmental restoration as well as discharge of produced water to waters of the United States.

Thank you for the opportunity to comment. Should you have any questions, please contact Erica Brown, Chief Strategy and Sustainability Officer, or me at 202-331-2820.

Sincerely,



Diane VanDe Hei
CEO

Cc: David Ross, OW
Jennifer McLain, OGWDW
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