



July 1, 2019

The Honorable David Ross
Assistant Administrator Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington DC 20460

Submitted online (Docket Number: EPA-HQ-OW-2019-0174)
Re: Input on Development of the Draft National Water Reuse Action Plan

Thank you for the opportunity to comment on development of the Draft National Water Reuse Action Plan and on the Discussion Framework for that process. We support the approaches articulated in the Discussion Framework of integrating federal policy, including the Clean Water Act and the Safe Drinking Water Act, and collaborating with multiple stakeholders in and outside of government to effectively use and shepherd the nation's water resources.

Genesis of the Plan Development

While we recognize the importance of effective use of water resources, it is not clear how development of a Draft National Water Reuse Action Plan (Action Plan) has come about at this juncture. Agency resources are stretched in terms of the critical core business of implementing laws that protect human health and the environment and with multiple reuse studies and projects underway not only within the federal government but in other sectors. We urge the Environmental Protection Agency (EPA) to focus the Action Plan on supporting existing reuse efforts and related research agenda and ensuring that reuse activities do not put human health and the environment at risk. We recognize and support the water sector's efforts to integrate water management, and some aspects of that effort will indeed require engagement from EPA and their partnering State agencies. It is not clear how the Action Plan address the needs of these priority stakeholders.

In particular, we are concerned about the ultimate impacts of reuse activities on drinking water sources. Development of direct potable reuse and other "One Water" approaches to water management require federal and state oversight but are also extremely rooted in the needs on the ground. Any Action Plan needs to include analysis

of actual community needs and research to ensure that new initiatives do not put additional burdens on Public Water Systems or threaten public confidence in drinking water.

Use Cases – Possible Examples of Types and Fit for Purpose Applications of Water Reuse

The lack of clarity around the origins and purpose of the Action Plan results in part from Table 1 in the Discussion Framework. These “Use Cases” as depicted in Table 1 do not provide a clear explanation of the intent of the Action Plan, possibly because the “Categories” are not equivalent. The categories include broad practice and use categories (Agriculture & Irrigation, Environmental Restoration, Impoundments) as well as “Oil and Gas Production,” which seems to be presented as both a source of water for other uses and a sector where water can be reused. This lack of clarity around what problem Table 1 is trying to solve is complicated by the inclusion of “Drinking Water” as a category, given that drinking water sources and indeed ambient water that has multiple critical end uses are in some ways also the most important “receiving end” of any unintended negative consequences of reuse activities.

Potable Reuse in the Context of the Action Plan

We see indirect and direct potable reuse as critical issues related to public health and Public Water System operation. Due to the importance of access to clean water for each and every community and in light of heightened public concern about drinking water quality, we are not sure how drinking water actually fits into this Plan. Potable water issues need to be approached with extreme sensitivity to public health protection and to local realities. Supporting potable reuse projects while ensuring that the health of communities is protected, articulated in EPA's *2017 Potable Reuse Compendium*¹, are the appropriate roles for EPA

In supporting and overseeing potable reuse activities.

More Non-Potable Reuse Affects Drinking Water Sources, the Environment, and Public Health

The development of this Action Plan demands a holistic approach to assessing impacts on drinking water. This pertains to any discharges to surface or ground water currently in use as drinking water sources or which are potential sources of drinking water. But impacts on drinking water sources are not limited to direct discharges. For example, irrigation can result in contaminants reaching ground water and surface water

¹ U.S. Env'tl. Prot. Agency, *2017 Potable Reuse Compendium*, available online at https://www.epa.gov/sites/production/files/2018-01/documents/potablereusecompendium_3.pdf

resources. Poorly characterized water, particularly from industrial waste streams, can threaten drinking water even when direct discharge is not involved.

Oil and Gas Production in the Context of Reuse

We are particularly concerned about the inclusion of Oil and Gas Production as a specific category in the Framework. Expanded reuse of oil and gas wastewater, or produced water, outside the production process is not appropriate at this time. Oil and gas wastewater is poorly characterized, and poses unknown risks to water resources and to drinking water sources. EPA is concurrently asking for public comments on how it could facilitate greater discharges of oil and gas wastewater through Clean Water Act programs. In fact, comments on the draft *Study of Oil and Gas Wastewater Management under the Clean Water Act*² are due on the same day as input on the Framework Discussion for development of a Water Reuse Action Plan. This is troubling given that available evidence supports more restrictions on produced water discharges to surface water, not less.

As noted in our comments on the draft Study of Oil and Gas Wastewater Management Under the Clean Water Act, EPA has documented impacts from produced water in both its study of Centralized Waste Treatment facilities³, and the study of Hydraulic Fracturing and Drinking Water⁴. Furthermore, a growing body of independent research⁵ and state regulatory proceedings⁶ indicate water quality problems can arise from produced water discharge that should compel EPA and states to adopt additional, more stringent protections that would likely lead to LESS surface discharge, not more. The potential impacts from produced water extend beyond direct discharges as regulated by Clean Water Act programs. As noted above, use of these as yet little understood waste streams in irrigation and other potential reuse activities can lead to water contamination and other health and environmental impacts .

² U.S. Env'tl. Prot. Agency, Draft Study of Oil and Gas Extraction Wastewater Management Under the Clean Water Act, EPA-821-R19-001, available at <https://www.epa.gov/eg/study-oil-and-gas-extraction-wastewater-management>

³ U.S. Env'tl. Prot. Agency, *Detailed Study of the Centralized Waste Treatment Point Source Category for Facilities Managing Oil and Gas Extraction Wastes*, EPA-821-R-18-004 (May 2018), available at: https://www.epa.gov/sites/production/files/2018-05/documents/cwt-study_may-2018.pdf.

⁴ U.S. Env'tl. Prot. Agency, *Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States*, EPA-600-R-16-236Fa (Dec. 2016), available at: www.epa.gov/hfstudy.

⁵ Warner, Nathaniel & A Christie, Cidney & B Jackson, Robert & Vengosh, Avner. *Impacts of Shale Gas Wastewater Disposal on Water Quality in Western Pennsylvania*, Environmental Science & Technology. (Oct 2013).

⁶ Cal. Reg'd Water Quality Control Bd Central Valley Region, Cease and Desist Order R5-2019-0045 for Valley Water Management Company McKittrick 1 & 1-3 Facility Kern County, adopted June 6, 2019, available at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/kern/r5-2019-0045.pdf

Facilitating effective use of water resources should not become entangled with stated industry goals of addressing an inexhaustible need for freshwater and a desire to loosen regulations involved in the numerous disposal options already available. Instead, EPA and other regulatory agencies should develop policies to bring oil and gas water usage back in line with disposal capacity and ecological limits.

In development of any National Water Reuse Action Plan, we urge EPA to make water quality and protection of drinking water sources a primary consideration. We encourage EPA not to promote risky activities without robust research and engagement to ensure these considerations are primary.

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