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Via Regulations.gov Portal

John Ravenscroft
Office of Science and Technology
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Mail Code 28221T
Washington, D.C. 20460-0001

Subject: Development of a Draft Water Reuse Action Plan, Docket Id. No. EPA-HQ-OW-2019-0174

Dear Dr. Ravenscroft:

The American Petroleum Institute (“API”), American Exploration & Production Council (“AXPC”), Independent Petroleum Association of America (“IPAA”), and Domestic Energy Producers Alliance (“DEPA”), (collectively, “the Associations”), appreciate the opportunity to review and comment on the development of a Draft Water Reuse Action Plan (WRAP) by the U.S. Environmental Protection Agency (“EPA”). On April 18, 2019, EPA also issued the Discussion Framework for Development of a Draft Water Reuse Action Plan – A Collaborative Call for Action: Development of a Water Reuse Action Plan (“Discussion Framework”) that provides “background, context, and details of the development.”¹ Although a very limited number of details are currently available, we generally support EPA’s goals of better integrating federal policy and leveraging the expertise of both industry and government toward effective use of the Nation’s water resources. Toward these ends, the Associations appreciate EPA considering broader fit-for-purpose applications, challenges, and opportunities for water reuse in industrial use, including in areas of oil and gas production. In the spirit of EPA’s call for collaboration for developing a draft WRAP, we submit the following comments for your consideration, with a focus on the upstream aspects of our industry.

¹ As stated, EPA has opened this public docket to collect input and ideas that will inform the development of the WRAP. See: <https://www.regulations.gov/docket?D=EPA-HQ-OW-2019-0174>

Summary

In considering viable options and opportunities for water reuse, we encourage EPA to consider ways to provide maximum flexibility, certainty, and clarity to the existing regulatory and permitting frameworks applicable to the management of water from all industries (including the oil and natural gas industry). Variability among multi-jurisdictional bodies that regulate water quality and water reuse can result in complex jurisdictional interplays that place inconsistent regulatory burdens upon companies. While respecting that some variation is a natural consequence of cooperative federalism, the draft WRAP should work towards identifying and removing barriers within the federal government's control that discourage and disincentivize the reuse, recycling, and fit-for-treatment uses of water. We support EPA working with various stakeholders, including the oil and gas sector, to better understand the current regulatory framework as well as the data and knowledge base that is in place.

Below, we provide specific comments following the Discussion Framework's format on a section-by-section basis for your consideration. Based on our extensive experience, we highlight issues, challenges, and recommendations with particular focus on the upstream areas of the oil and gas sector.

The Associations and Their Interests

The Associations represent all sectors of the oil and gas industry, have an interest in conserving the nation's water sources, and welcome the opportunity to submit comments on the development of a draft WRAP.

Together, the signatories to this letter represent the vast majority of the U.S. oil and natural gas industry, ranging from large producers to independents. Member companies of the undersigned generate and manage produced water throughout the country and actively participated in EPA's outreach efforts, including but not limited to engaging and commenting on EPA initiatives listed in the Discussion Framework. This comment letter contains additional oil and natural gas industry comments and feedback on EPA's development of an integrated water management plan.

The undersigned Associations are as follows:

- API is the only national trade association representing all facets of the natural gas and oil industry, which supports 10.3 million U.S. jobs and nearly 8 percent of the U.S. economy. API's more than 600 members include large integrated companies, as well as exploration and production, refining, marketing, pipeline, marine businesses, and service and supply firms. They provide most of the nation's energy and are backed by a growing grassroots movement of more than 47 million Americans. API was formed in 1919 as a standards-setting organization. In its first 100 years, API has developed more than 700 standards to enhance operational and environmental safety, efficiency and sustainability.

- The AXPC is a national trade association representing 33 of America’s largest and most active independent natural gas and crude oil exploration and production companies. The AXPC’s members are “independent” in that their operations are limited to the exploration for and production of natural gas and crude oil. Moreover, its members operate autonomously, unlike their fully integrated counterparts which operate in different segments of the energy industry such as refining and marketing. The AXPC’s members are leaders in developing and applying the innovative and advanced technologies necessary to explore for and produce the natural gas and crude oil that allows our nation to add reasonably priced domestic energy reserves in environmentally responsible ways.
- The IPAA represents the thousands of independent oil and natural gas explorers and producers, as well as the service and supply industries that support their efforts, that will most directly be impacted by federal regulatory policies. Independent producers develop about 91 percent of American oil and natural gas wells, produce about 83 percent of American oil, and produce more than 90 percent of American natural gas and natural gas liquids. The IPAA is dedicated to ensuring a strong, viable American oil and natural gas industry, recognizing that an adequate and secure supply of energy is essential to the national economy.
- DEPA is a unique organization with a grassroots approach to domestic onshore energy advocacy and education. DEPA is an alliance of producers, royalty owners, and oilfield service companies, as well as state and national independent oil and gas associations, representing the small business men and women of the energy industry and devoted to the survival of U.S. domestic crude oil and natural gas exploration and production. DEPA’s members are leaders in developing and applying the innovative and advanced technologies that allow our nation to add reasonably priced domestic energy reserves in a fair and equitable market.

The Associations’ members share a broad interest in protecting and conserving water resources, including complying with complex federal, state, tribal, and local water quality requirements stemming from the Clean Water Act and other statutes. The Associations and their members also develop and implement robust industry standards, create mechanisms for sharing best practices, and voluntarily initiate beneficial practices to ensure oil and natural gas operations are being operated in a manner that protects the environment.

Our members develop and apply innovative technologies to use and reuse various qualities of water in all aspects of their operations. Yet, in some regions, the oil and gas industry is hampered by federal and state regulations which inhibit the utilization of produced water for appropriate reuse and recycling uses. Disposal via UIC wells will likely remain a key method of disposal but that should not preclude other water management options for beneficial use of treated produced water that are fit-for-purpose, protective of receiving waters and the environment, and foster innovation in conservation and protection of water resources.

I. VISION.

The Associations generally welcome EPA's preliminary outreach-style approach and cautiously support the very broad initial vision outlined by EPA in the Discussion Framework. We are pleased to offer several suggestions for consideration, elaboration, and refinement.

As discussed below, we support the very broad vision for an integrated water management approach to the limited extent that EPA outlines it in the Discussion Framework. While the framework as it stands is largely aspirational, we are pleased that EPA chose to engage a myriad of stakeholders early in the process. The Associations support EPA's leadership in generating feedback through a cooperative approach amongst federal entities, states, tribes, local governments, industry, NGOs, and other key stakeholders to fully examine and plan for potential water reuse policies and options. Each of these groups has an important role to play in discussions about meeting our nation's future water needs.

The Associations also caution that all parties should remain cognizant of, and compliant with, their responsibilities under cooperative federalism and existing water management frameworks and appropriate legislative and regulatory frameworks. While there can be considerable benefits to collaboration, federal time and funds will be used most efficiently if each participating entity adheres to their unique role under collaborative federalism and applicable law. For example, the role of states as primary implementation authorities for water quality standards under the Clean Water Act should be recognized.

We also recommend that, where appropriate under the Administrative Procedures Act, significant initiatives in the draft WRAP should be detailed appropriately and submitted for notice-and-comment rulemaking to assess their potential impacts on the broad group of stakeholders involved in this discussion. Formal rulemaking procedures provide the opportunity stakeholders to fully engage in the process, and increase the legal defensibility of complex and multi-layered governmental decisions. This is particularly important as agencies consider how to adapt existing multi-layered regulatory frameworks to promote the various aspects of water reuse within a unified regulatory framework.

Beyond these main points, we offer the following suggestions:

- 1. The definition of "water reuse" is overly broad and likely to lead to confusion, particularly given varying definitions in individual state frameworks. For clarity, it would be preferable for the draft WRAP to use granular terminology when discussing individual initiatives.**

For the purposes of the Discussion Framework, EPA offers a broad definition of water reuse that includes varying and perhaps dueling uses such as recycled water, reclaimed water, alternative water supplies, improved water reliability, and water resource recovery. We recommend articulating and further refining these uses into their own separate definitions taking into account generally accepted technical definitions found in regulations, guidance, literature, and as those terms are commonly used and understood.

2. When developing the goals of the Discussion Framework, the Associations encourage EPA to echo many of the principles for the Discussion Framework originally articulated by the U.S. Chamber of Commerce.

As EPA undertakes further efforts to frame this initiative, the Associations encourage EPA to embrace a certain number of the core principles articulated in this docket by the U.S. Chamber of Commerce, with our overlapping areas of agreement re-quoted below.² When evaluating potential actions, the Associations hope that EPA will strive to consider initiatives which:

- *“Promote flexibility and certainty in meeting water quality requirements.* EPA should maximize flexibility and certainty in meeting state-regulated water quality requirements through risk-based standards and green infrastructure.”
- *“Provide funding for technology innovation.* Congress should fund the recently passed technology innovation grant program, explicitly include reuse technologies as an eligible activity, and encourage public-private partnerships.”
- *“Remove barriers to reuse and clarify legislative jurisdiction.* There are technology, financial, legal, and social barriers to increasing water reuse.”
- *“Promote a skilled workforce.* Research has found that potable and nonpotable reuse technologies include unique features that differ from traditional water and wastewater facilities. Additional research and guidance are needed on the workforce qualifications, training, and certification programs that will be required.”
- *“Expand the current regulatory framework to facilitate produced water discharge.* Produced water management options should balance the goals of protecting water quality while ensuring environmentally sound water management to satisfy the growing needs to conserve water resources and to expand produced water management alternatives. At the federal level, produced water discharges should be governed with an emphasis on the effluent quality using similar frameworks to other industrial categories (with science and technology-based criteria established and the states acting as the primary implementation authorities).”

II. BUSINESS CASE – IMPETUS FOR ACTION.

Given time and resource constraints, the Associations encourage the government to focus on enacting concrete and viable initiatives that will actively advance water reuse. caution the federal government to carefully consider opportunities consistent with its regulatory role under cooperative federalism.

² [Comments by U.S. Chamber of Commerce Business Task Force on Water Policy](#), June 12, 2019.

- 1. We encourage EPA to focus on the prioritization principles (critical need and lasting impact) articulated by the WaterReuse Association, to identify for action only the most significant choke points and root-causes, and to follow the economic evaluation criteria articulated in existing EPA documents.**

When evaluating potential actions, we encourage EPA to carefully weigh and balance the costs, benefits, and reward timeframes of the various options and implementation challenges associated with water reuse in industrial settings. To that end, when allocating limited federal funds the WaterReuse Association and affiliated experts in water reuse, including the Association of Metropolitan Water Agencies, the National Association of Clean Water Agencies, the Water Environment Federation, and the Water Research Foundation gathered input among their members according to two principles, projects that “fill a critical need and have a high potential for success and lasting impact.” In the spirit of making immediate progress, we encourage EPA to consider root-cause and choke point analyses, identifying the most significant impediments to increased water reuse.

We would also encourage EPA to adhere to the key principles laid out in EPA Administrator Andrew Wheeler’s May 13, 2019 memorandum “Increasing Consistency and Transparency in Considering Benefits and Costs in the Rulemaking Process”³ and EPA’s *Guidelines for Performing Economic Analyses*⁴ in lieu of more subjective and difficult to measure alternatives like triple-bottom line accounting frameworks.

- 2. We also encourage EPA to consider outside-the-box opportunities such as increased training activities for the regulatory community and the private sector workforce.**

EPA should give additional consideration to policies that support developing a skilled workforce that is trained, qualified, and certified, to deal with complex potable and non-potable water technologies. This understanding of technology, as well as applicable observations or compliance for certain industrial processes, can be a challenge for companies and regulators at the state and federal level. Opportunities for increased training and dialogue could bring about substantially increased benefits.

III. USE CASES – POSSIBLE EXAMPLES OF TYPES AND FIT-FOR-PURPOSE APPLICATIONS OF WATER REUSE.

We appreciate the illustrative examples of current water reuse practices that help to demonstrate applications and opportunities for fuller consideration of water reuse, and we encourage EPA to recognize the challenges and need for further refinement given significant variability within water reuse applications. Regarding upstream oil and natural gas production, there are significant differences between the various use applications that would require some level of segmentation. For example, produced water may be treated for reuse in oil and natural gas operations or treated

³ [Increasing Consistency and Transparency in Considering Benefits and Costs in the Rulemaking Process, Memorandum from Andrew R. Wheeler, EPA Administrators to all assistant administrators](#), May 13, 2019.

⁴ [Guidelines for Preparing Economic Analysis](#), EPA, 2010.

for discharge. But, from a water quality perspective, regulating produced water discharges should follow the same process for other municipal or industrial effluents.

Regulatory barriers and constraints along with varying regulations are also limiting opportunities to reuse water. Public outreach and garnering public support for water reuse in industrial uses outside of the oil and natural gas industry is also an area that needs to be addressed and should be listed as a challenge.

IV. EXAMPLES OF EFFORTS POTENTIALLY RELATED TO A WRAP.

In addition to areas noted in the Discussion Framework, we provide the following information that the draft WRAP should consider as examples of efforts potentially related to a draft WRAP.

In 2016, the Groundwater Protection Council announced a multi-year project to address challenges and foster solutions for the alternative management and beneficial use of produced water. Considerable additional information about the oil and natural gas industry's management of produced water is available in a recently released report from the Groundwater Protection Council, available at <http://www.gwpc.org/produced-water-may-provide-relief-declining-water-supplies-areas-us>.

Similarly, at the state level, Oklahoma's Water for 2060 Produced Water Working Group is involved in extensive efforts to discuss efforts, challenges, and opportunities associated with using treated produced water for beneficial use, such as industrial use or crop irrigation, and Oklahoma has published a report with key findings and recommendations.⁵ New Mexico has also been actively involved with EPA in clarifying frameworks related to the way produced water can be reused and their efforts are noted in the Section IV of the Discussion Framework. We support the inclusion and we also suggest that to the extent that certain documents are draft (i.e. EPA-New Mexico's Draft White Paper on Oil and Natural Gas Produced Water Governance in the State of New Mexico, Nov. 9, 2018), public comments that are part of the docket, should be included and considered.⁶

Various state legislatures have also proposed bills and/or adopted legislation to promote water reuse in differing categories:

- HB 2545, Texas Legislature 86th Regular Session (relating to franchise tax, oil production tax, and gas production tax incentives for certain desalination facility operations), left pending in committee.⁷

⁵ [Report of the Oklahoma Produced Water Working Group](#), Water for 2060, April 2017.

⁶ [Oil and Natural Gas Produced Water Governance in the State of New Mexico – Draft Paper, EPA and New Mexico](#), Nov. 9, 2018. See also, [Comments submitted by the American Exploration and Production Council and the Domestic Energy Producers Alliance on the Draft White Paper](#), Dec. 10, 2018).

⁷ [HB 2545](#), Texas Legislature 86th Regular Session (relating to franchise tax, oil production tax, and gas production tax incentives for certain desalination facility operations) (“HB 2545”).

- HB 546, New Mexico Legislature 2019 Regular Session (relating to, amongst other things, enacting the Produced Water Act), signed into law.⁸
- HB 2771, Texas Legislature (allows the Texas Commission on Environmental Quality to seek authority from the EPA to issued NPDES permits for the discharge of produced water, hydrostatic test water and gas plant effluent from certain upstream oil and natural gas activities).

V. POTENTIAL AREAS OF FOCUS.

The Associations generally support EPA on the six key areas of focus that should be considered and evaluated in drafting a WRAP; and the Associations provide specific comments for each of the sections. We support the six areas identified by EPA as key components that should be considered and evaluated to better understand different types of water reuses and associated challenges as well as possible actions that may be needed to remove barriers to water reuse opportunities. We agree that it is important to not repeat recent efforts on understanding these issues but to fully assess information gaps under each of these components and provide a path forward for actions needed.

As EPA develops a draft WRAP, we encourage EPA to work closely with the oil and natural gas sector to better understand the potential for water reuse and to help identify areas of challenges and opportunities. We provide the following specific comments for each of the potential areas of focus for your consideration.

1. Technological Improvements

We encourage EPA to consider potential options such as federal research to reduce the cost of desalination and other treatments in order to more effectively address the choke points in the current water reuse market. EPA also discusses the need to determine the management and reclamation for managing brines/concentrates with focus on any viable environmentally acceptable disposal methods. A better understanding options for brine management would be helpful especially with the increase in produced water reuse as contemplated by the draft WRAP. With numerous emerging technologies, costs can widely vary based on site location, space availability and access, and we agree with EPA the need to further understand brine management and need for disposal options. However, EPA also needs to provide space for understanding and identifying market opportunities for reclamation of brines as well as assessing and finding solutions for any potential litigation risks associated with reuse of residual solids.

⁸ [HB 546](#), New Mexico Legislature 2019 Regular Session (relating to, amongst other things, enacting the Produced Water Act) (“HB 546”).

Depending on the specifics of the projects satisfying legal criteria such as antitrust constraints, we would welcome the opportunity to collaborate on similar efforts with the federal government or other partners.

2. Regulatory/Policy Aspects at All Levels of Government.

Addressing and removing regulatory barriers is essential for developing a unified water management frame and for facilitating better water reuse options.

We endorse EPA's action to create an environment where reuse can be realistically and routinely considered within a unified framework that includes regulatory and policy incentives, addresses challenges, removes barriers, and facilitates better water reuse options. EPA also states the need to address other regulatory and institutional barriers and to consider expanded alternatives for the management and disposal of wastewaters, such as produced water from oil and natural gas production.

Where practical, the oil and natural gas industry is committed to the reuse of the water within our operations to offset fresh water needs and reduce the need for disposal, but as discussed above options for produced water management are significantly narrowed by regulatory and economic constraints. Due to the regulatory landscape, the majority of produced water is injected into Class II UIC wells, either for disposal or enhanced oil recovery. However, there are innovative methods to recycle and reuse produce waters that can be utilized.

Removing regulatory constraints to allow for produced waters in certain water reuse contexts would be a positive step forward from regulatory, environmental, and economic perspectives. The following are an illustrative list of several barriers and challenges that the oil and natural gas sector face in managing produced water for reuse, and recommendations for a path forward where applicable.

- While considering frameworks and metrics, it is also important to understand that there is no one-size-fits all solution for produced water management. Instead, a series of factors are important drivers for increased recycling and reuse where practical. These should be considered in any draft WRAP. For example, in the oil and natural gas sector, each operating area is unique, including both at the surface and underground, and similar wells in the same formation can have different management methods and different constraints that can affect how much water is needed to complete and develop the well, how much water is produced, and what management methods are available or make the most sense (e.g., site constraints such as availability of access roads on leased lands or various surface use restrictions).
- Regulations at the federal and state level can be a major factor in either encouraging or constraining recycling and reuse opportunities. Current regulations in some states limit the transfer of produced water between operators. For example, legislative and/or regulatory language in some states, such as the regulatory classification of "commercial" (involving multiple operators) versus "non-commercial" (for one operator's primary use) in Oklahoma and Texas, can be an impediment. There is typically less regulatory burden

for an operator-only facility, while transfers between multiple operators classified as “commercial” entail more regulatory burden.

- Water ownership and potential liability issues or uncertainties that may arise when produced water is transferred to a third party are also potential barriers to certain management options that entail external transactions.
- New Mexico’s HB 546 or “The Produced Water Act” offers potential examples on minimizing risks for industry and thus removing barriers toward use of produced water in appropriate settings.⁹ HB 546 defines ownership and liability for the produced water.¹⁰ It clarifies that produced water does not come with a water right attached that needs to be registered with the state.¹¹ And in a departure from certain hazardous waste statutes, the bill allows for the transfer of responsibility from the generator, which would be the oil and natural gas company, to the company that has acquired the waste.¹² Specifically, transferees who accept the produced water are “liable for the use, disposition, transfer, sale, conveyance, transport, recycling, reuse or treatment of the produced water.”¹³

3. Financing.

Economic incentives for industrial sectors will encourage greater consideration of alternative water reuse options in the marketplace. We believe that EPA should also consider and promote cost-effective options to incentivize water reuse. For reuse options relating to produced water, economics can vary widely depending on lease constraints, site location, and the volume of a company’s activity in the area. For reuse to occur, individual corporate business units also must consider and often absorb costs associated with treatment, storage, transportation, recycling/reuse, and disposal. Business units will also look to other factors such as infrastructure (or lack thereof) available to facilitate the transfer from where the water is produced to where it can be reused as well as availability of UIC capacity in the local area.

The state governments also understand local conditions for market drivers that encourage water reuse as well as specific markets that are amenable to accepting reused water. States should play an active role in identifying and promoting these markets as well as connecting the industrial water users with those in need of particular reuse applications.

Overall, EPA should focus on using its limited funds on water use initiatives and options that will likely have the most value in the short-term where technology and science are known.

⁹ HB 546.

¹⁰ Id.

¹¹ Id.

¹² Id.

¹³ Id. at Section(A)(2).

Federal and state, governments could also introduce tax credits or other incentives for industries that meet certain reuse parameters. Some state legislatures have introduced legislation on these issues and should be considered in a draft WRAP as possible examples and ideas for implementation. In Texas, HB 2545 which was passed by the house but left pending in a senate committee, proposed tax incentives for oil and natural gas producers (or wastewater treatment facilities) that would treat produced water.¹⁴ In New Mexico, HB 546 which has been signed into law authorizes a state commission to set standards for reusing produced water outside the oil fields, potentially for irrigation, construction, industrial, or environmental purposes.¹⁵

4. Fit-for-Purpose.

EPA must recognize variability in industry processes, build on existing knowledge and frameworks and develop metrics and parameters based on regional conditions, type of industry that is being regulated, and geography. The EPA identifies the need to help states and other entities determine frameworks and scale-specific levels of treatment for recycled water depending on intended use with technical and infrastructure specifications. The caption calls for water quality performance metrics to assure that recycle water meets use or user needs.

Contemplating that this section includes industrial waters requiring treatment such as produced water, there is already in place high level of understanding in these uses that would not necessitate starting from ground zero. We encourage EPA to build on existing knowledge and frameworks used in other industries to set appropriate standards. Additionally, there is variability in industry processes and baselines and water quality performance metrics that EPA should recognize.

At the very least, we believe that the level of treatment should be appropriate to safeguard the receiving water in the same way that discharge standards are established for all other industries. There are few examples of existing facilities permitted, or in the process of being permitted, for treatment and discharge of treated produced water west of the 98th meridian (e.g. Colorado and Wyoming, for example) and through Centralized Waste Treatment (“CWTs”) facilities in various parts of the country.¹⁶ We generally believe that EPA and/or the states should determine the appropriate receiving water discharge criteria (e.g. acceptable parameter discharge levels) as is done for other industries and then allow the oil and natural gas operators and associated service providers to select the treatment technologies to meet the discharge criteria. EPA should encourage technological advances by allowing new technologies to be used as they are developed.

For example, there are available technologies that exist to remove contaminants in produced water, including oil/grease, suspended solids (TSS), dissolved solids (TDS), organics, and inorganics. A number of these existing treatment technologies were identified and described in EPA’s “Detailed Study of the Centralized Waste Treatment Point Source Category for Facilities Managing Oil and

¹⁴ HB 2545.

¹⁵ HB 546.

¹⁶ [Detailed Study of the Centralized Waste Treatment Point Source Category for Facilities Managing Oil and Gas Extraction Wastes](#), EPA, May, 2018

Gas Extraction Wastes.”¹⁷ EPA also maintains a database of Industrial Wastewater Treatment Technologies (IWTT) including technologies in the oil and natural gas sector.¹⁸

In sum, produced water use should be treated similarly to other industrial uses in that the knowledge of a complete list of constituents should not be necessary for setting regulatory frameworks or standards. Methodologies are available for determining the toxicity of any water that is discharged including various components in high TDS wastewater. Whole Effluent Toxicity (“WET”) testing is available for measuring wastewater's effects on specific test organisms' ability to survive, grow and reproduce. In fact, in some cases where desalination technologies are used, minerals need to be added back into the treated water to pass the WET test. The oil and natural gas sector is knowledgeable on the types of chemistries or compounds removed by treatment types.

Overall, the NPDES program is effective where appropriate numerical or qualitative discharge standards are developed. Once appropriate numerical discharge standards or criteria are established, industry can implement or develop suitable technologies or processes to meet those standards.

5. Information about Water Use and Availability.

The Associations suggest building on existing available data that the regulated entities already collect and report through quality-controlled regulatory processes. The type of data that is collected by the federal and state agencies under statutory requirements is vetted using approved methods that allows for comparative analysis. Any data that is used as a basis for developing regulations or policy should be carefully vetted to ensure that approved methods were used that would enable apples-to-apples comparison. Data that is collected and presented without utilizing any acceptable validation methods can be misconstrued and over-simplified, and caution and care should be exercised with the development of the mechanisms for information sharing.

Finally, as mentioned earlier, the Associations suggest EPA carefully consider the value and durability of additional data reporting. If such data is likely to become outdated quickly or unlikely to spur advances in water reuse because it does not facilitate remedying a key choke point, we would encourage EPA to prioritize other items more likely to fill a critical need and provide long-ranging impact.

6. Outreach Opportunities.

Cohesive outreach and educational efforts on multi-jurisdictional levels are key to building public confidence with industrial water reuse applications.

The Associations support in principle action items relating to public education, outreach, and communication on water reuse and agree with the need to build confidence with the public concerning water reuse. For example, FracFocus is a valuable outreach and education website on chemical use in oil and natural gas production. These types of examples can be applied in the

¹⁷ Id.

¹⁸ [Industrial Wastewater Treatment Technologies Database](#), EPA. Note: This database should be updated periodically with new information from the CWT Study and emerging technologies.

water reuse arena and bolstered with cohesive outreach and education efforts on multi-jurisdictional levels. Such activities should be carried out in the short-term as well as over the long-term so that the messaging is consistent and resonates over a long period of time.

EPA could also play a primary role in building public trust and acceptance for various forms of treated water (from brackish water to produced water) in a variety of fit-for-purpose scenarios. To this end, we encourage EPA to consider strategies that would encourage re-use and recycling of produced water by using neutral, scientific language to avoid misconceptions. For example, using granular terms such as treated produced water when discussing discharge or toxicity would assist the public in understanding that the discharged untreated produced water is not what is being contemplated.¹⁹

VI. EXAMPLE COLLABORATORS' AND POTENTIAL OWNERS OF ACTIONS IN A WATER REUSE ACTION PLAN.

To better develop a draft WRAP that considers and promotes alternative water reuse in industrial settings, expertise of affected industry sectors should be utilized. There is an extensive list of collaborators and potential owners' of action, and the Discussion Framework discusses leveraging the expertise of industry. Yet, this list does not include industry experts. The oil and natural gas sector has complex operations which require intimate knowledge of its practices, and this knowledge base is necessary to build frameworks that are contemplated in the Discussion Framework. Any consideration to developing and designing performance metrics, guidelines, and frameworks to ensure that reused water meets use and user needs will require the input of experienced users. We recommend that industry-specific associations such as the Associations should be included as well as state specific oil and natural gas associations. The Groundwater Protection Council as well as the Interstate Oil and Gas Compact Commission which manage the FracFocus registry would also be of value.²⁰ Among federal partners, we recommend the addition of USGS for their expertise in the collection of the nation's water quality data.

VII. THE EPA WATER REUSE TEAM.

We appreciate the wide expertise that EPA has identified and made available for its water reuse team. The Associations suggests that the EPA Water Reuse Team should also include liaisons with key federal agencies (e.g. Departments of Interior and Energy) which will work closely on the draft WRAP as well as representatives from other key regions (Regional Water Reuse Designated POCs) not limited only to Regions 1, 2, 8, and 9. EPA Region 6 encompasses New Mexico and Texas which are key players in water reuse development. We encourage the

¹⁹ There may be rare instances west of the 98th meridian where certain produced waters are of a quality that meet long-standing discharge standards clearly articulated in permits.

²⁰ Both these organizations' missions revolve around conservation and environmental protection.

government to continue to identify and liaise with appropriate individuals (e.g., including but not limited to those from various areas in EPA’s Office of Water) as the effort progresses.

VIII. INFORMING DEVELOPMENT OF THE WATER REUSE ACTION PLAN.

As discussed, the Associations generally support the areas of focus that will inform the development of the draft WRAP and provide additional comments, including the need to streamline permitting obligations within multi-jurisdictional governmental entities. We agree with the list of key considerations including identifying barriers, opportunities, and areas of focus that should be addressed by the draft WRAP. We also suggest including detailed recommendations and a path forward to remove regulatory barriers as well as proposals for explicit economic incentives for encouraging water reuse in the oil and natural gas sector. It is also important for federal agencies and states to improve coordination in their activities related to water reuse and this should include streamlining permitting obligations across differing regulatory bodies.

IX. WATER REUSE AND RELATED FORUMS.

We support EPA’s efforts to engage and gain insights at varying meetings and forums and encourage better understanding of the beneficial reuse opportunities within the oil and natural gas sector.

For your consideration in the development of a draft WRAP, we provide the following meetings/forums:

- Groundwater Protection Council – Annual Meetings and UIC Conferences

X. RELEVANT PUBLISHED LITERATURE.

Similar to Section XI, we encourage including studies that advance a better understanding of industrial processes and opportunities for water reuse.

For your consideration in the development of a draft WRAP, we provide the following study:

Groundwater Protection Council, *Produced Water: Regulations, Current Practices & Research Needs* (2019), available online at <http://www.gwpc.org/produced-water-may-provide-relief-declining-water-supplies-areas-us>

XI. CONCLUSION.

The Associations and their members we look forward to collaborating with EPA and its partners

on the development of WRAP. These efforts are timely as EPA looks to addressing pathways for appropriate water reuse in the upstream oil and natural gas sector. We are also grateful for EPA's efforts to consider viable and environmentally beneficial options for the reuse and recycling of produced water.

We appreciate your consideration of our comments. If you have any further questions, please do not hesitate to contact us.

Thank you in advance for your consideration of our comments. Please do not hesitate to reach out to us if we can be of further assistance on this important issue.

Respectfully submitted,



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