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November 5, 2021

Brenda Mallory, Chair

Council on Environmental Quality

730 Jackson Place

Washington D.C., 20506

RE: Federal Agency Climate Adaptation and Resiliency Plans (CEQ-2021-0003-0001)

Dear Chair Mallory:

Thank you for the opportunity to comment on the recently published Federal Agency Climate Adaptation and Resiliency Plans.

WateReuse is a not-for-profit trade association for water utilities, businesses, industrial and commercial enterprises, non-profit organizations, and research entities that advocate for water recycling. WateReuse and its state and regional sections represent nearly 250 water utilities serving over 60 million customers, and over 200 businesses and organizations across the country. The WateReuse Association's mission is to engage its members in a movement for safe and sustainable water supplies, to promote acceptance and support of recycled water, and to advocate for policies and funding that increase water reuse.

Water reuse, also known as water recycling, is the process of intentionally capturing drainage water, wastewater, stormwater, saltwater or graywater and cleaning it as needed for a designated beneficial freshwater purpose, such as drinking, industrial processes, irrigation, groundwater replenishment, and watershed restoration. The fundamental principle of water reuse is using the right water for the right purpose, everywhere and all the time. By advancing water reuse, we protect and enhance the environment while helping communities build resilience to drought, flooding, and other impacts of climate change.

As climate change accelerates, and its associated adverse impacts on water resources increase, it is vitally important that the nation invest in water recycling to build resilience, manage energy demands, support public and environmental health, and ensure America's economic prosperity. Investments in water recycling ensure reliable and resilient community water supplies, support sustainable economic development, and help protect our rivers, lakes, streams, aquifers and wetlands.

GENERAL COMMENTS ON ADVANCING CLIMATE RESILIENCY

Water recycling can help federal agencies adapt and build resilience to climate change for the agencies themselves, the communities they serve, and the communities that surround federal facilities. In the face of increasingly frequent, severe and prolonged droughts, wildfire, flooding and other climate-related impacts, water recycling provides a stable, locally generated and controlled water source. It also often uses less energy than other options for providing new water supplies, imposing a smaller carbon footprint, and generating fewer air pollution emissions.

By using recycled water or recycling water onsite, federal agencies can limit the impact of water supply disruptions on their operations. Recycled water is virtually drought-proof; so in preparation for groundwater or surface water limitations, federal agencies can produce recycled water onsite or source recycled water from a municipality, provided utilities in the area are producing recycled water. There are numerous examples of communities, businesses, and institutions that successfully turned to water reuse to combat existing or anticipated groundwater or surface water constraints. Recycling water and using recycled water also helps locally and regionally by limiting freshwater withdrawals from shared water resources.

In the case of extreme flooding events, onsite water recycling systems can keep a federal facility “online” when there are disruptions to centralized systems. During Super Storm Sandy, for example, when lower Manhattan and the surrounding region experienced severe flooding that disrupted power and sewer service, the Battery Park development’s onsite water recycling system provided continuous service to its residents. These onsite systems also provide relief to overburdened centralized systems during heavy wet-weather events. For more information on onsite systems, visit the website of the [National Blue Ribbon Commission on Onsite Non-potable Water Systems](https://watereuse.org/educate/national-blue-ribbon-commission-for-onsite-non-potable-water-systems/) (https://watereuse.org/educate/national-blue-ribbon-commission-for-onsite-non-potable-water-systems/).

Given the role that water recycling can play in advancing climate change adaptation and resiliency across the Federal Government, we recommend that every agency and department that has produced a climate adaptation and resiliency plan closely consider integrating water recycling into its operations. Sourcing centrally produced recycled water, making beneficial use of recycled water produced at federally owned wastewater treatment facilities, and/or recycling water onsite are proven mechanisms for increasing the resiliency of both operations and facilities; yet, while many of the adaptation and resiliency plans mention water efficiency and conservation, very few include water recycling. Similarly, many plans describe ongoing or planned efforts to assess water-related vulnerabilities for facilities and operations. We recommend that every agency consider opportunities for water recycling and the use of recycled water when conducting or updating these vulnerability assessments. Note that we make this



recommendation here rather than repeatedly making the recommendation for each individual agency below.

Multiple agencies—including the Bureau of Reclamation, U.S. Environmental Protection Agency, and U.S. Department of Energy, among others—administer programs that support the adoption of water recycling; however, federal agencies have not historically coordinated this work. To better coordinate efforts and leverage resources and expertise across the Government, the Administration should utilize the soon-to-be established federal Interagency Working Group on Water Reuse. In the coming days, we expect Congress to enact the *Infrastructure Investment and Jobs Act* (H.R. 3684, as amended), which directs the Administration to establish the Working Group “to develop and coordinate actions, tools, and resources to advance water reuse across the United States.” The Working Group can help maximize the impact of federal investments in water recycling as a resiliency tool.

COMMENTS ON SPECIFIC RESILIENCY PLANS

Department of Agriculture

According to USDA’s Economic Research Service, agriculture consumes roughly 80 percent of the water that is used in the United States. The sector’s reliance and impact on water, both in terms of ground and surface water withdrawals and in terms of drainage to water bodies, is immense. Increased use of recycled water by the agricultural sector would help farmers and surrounding communities build climate resilience, in addition to conveying broader water quality and quantity benefits.

In some parts of the country, recycled water is already being used to irrigate tens of thousands of acres of farmland. For example, 92 percent of the recycled water that Idaho produces is used to irrigate crops. In California, Monterey One Water has diversified the local water supply through recycled water production for agriculture—helping irrigate 12,000 acres of specialty crops while preventing seawater intrusion. Eastern Municipal Water District, also in California, began marketing recycled water to local farmers for irrigation in 1966, and now supplies recycled water for more than 10,000 acres of farmland in its service area.

While much work is already being done to help producers build climate resilience using recycled water, many challenges remain. USDA more than any other federal agency can help address these challenges.



USDA's climate change adaptation and resiliency plan highlights actions that the Risk Management Agency (RMA) will take to help producers manage climate-related production risks. Like the use of cover crops, water recycling and the use of recycled water has proven benefits in terms of resiliency to drought. We therefore urge RMA to consider incentivizing the use of recycled water for irrigation in the same way that it incentivizes the use of cover crops.

USDA's plan notes that "NRCS programs and initiatives can provide financial and technical assistance and resources for implementing practices, like cover crops, reduced and no tillage, and improved irrigation systems, that contribute to more resilient landscapes." In recent years, NRCS took several steps to integrate water reuse into existing programs. For example, NRCS incorporated water recycling into Conservation Practice Standard 447, Irrigation and Drainage Tailwater Recovery. This type of drainage water reuse can help reduce dependence on limited water supplies while also controlling nutrient loading to waterways. NRCS also prioritized water recycling projects in the FY 2020 round of Conservation Innovation Grants (CIG). The WaterReuse Association commends NRCS for taking these important steps. To build on this work and further integrate water recycling into existing programs and initiatives:

- (1) We recommend that NRCS prioritize water recycling projects within the next Announcement of Program Funding (APF) for the Regional Conservation Partnership Program (RCPP). Like the CIG program, RCPP supports collaborative projects that often involve one or more NGOs, technical experts, and farmers. By facilitating innovative partnerships and bringing a variety of technical and financial resources to bear, RCPP is well positioned to advance water reuse as a resiliency tool.

- (2) We recommend that NRCS create a conservation practice or enhancement to support farmers who want to transition from groundwater withdrawal to municipally treated recycled water for irrigation. In many areas across the country, groundwater supplies are limited or are under stress due to drought, overdraft, contamination and other stressors. Transitioning from the use of groundwater to recycled water for irrigation—or replenishing basins used for agricultural purposes with recycled water—can preserve limited groundwater supplies while also providing the farmer with a sustainable, drought-proof supply of irrigation water. Irrigation with recycled water may also have the secondary benefit and purpose of replenishing depleted groundwater reserves through percolation. In some cases, using groundwater may cost a farmer less than using municipally sourced recycled water. Therefore, NRCS can facilitate this transition by creating a conservation activity (either through the Environment Quality Incentives Program or the Conservation Stewardship Program or both) to help cover the cost of transitioning.



USDA's climate adaptation and resiliency plan outlines a range of research needs and assessments that can help advance resiliency goals. We recommend that USDA Research, Education, and Economics (REE) agencies, in coordination with USDA's Climate Hubs, further assess the role that water recycling and the use of recycled water can play in helping farmers and agricultural communities prepare for and mitigate climate change impacts. USDA can build upon existing vulnerability assessments as well as the work done by the Water Research Foundation in its report *Agricultural Use of Recycled Water* (Project No. Reuse-15-08/4775).

Lastly, we recommend that USDA continue its participation in the National Water Reuse Action Plan (WRAP). For two years, USDA has been working with EPA on the development and implementation of the National Water Reuse Action Plan, a collaborative effort to advance water recycling across the country. USDA should continue its active participation in the WRAP and in the Interagency Working Group on Water Reuse, as described in our opening general comments.

Department of Defense

The Department of Defense's (DOD) climate adaptation plan outlines several *strategic outcomes*, which water recycling can help the Department achieve. These outcomes include:

- Resilient built and natural infrastructure necessary for successful mission preparedness, military readiness, and operational success in changing conditions;
- Uninterrupted access to key supplies, materials, chemicals, and services (resilient supply chains); and
- Reduce adaptation costs and build unity of purpose through meaningful engagement with DOD stakeholders.

Under the first strategic objective, the plan includes a comprehensive assessment of the resilience of DOD installations. This would include an assessment of drought, flooding, saltwater intrusion, and land subsidence at coastal installations. The plan notes that "new water resilience initiatives for DOD include constructing additional wastewater treatment and potable water infrastructure capacity at military installations to recapture and reuse water." Water recycling can help ensure long-term water security and military readiness. As part of its assessment of installation resilience, DOD should assess the current role and potential expansion of water recycling. We also encourage DOD to develop individual water reuse plans for remote deployments. These remote deployments could provide small-scale proving platforms for new technologies that could be scaled up and result in more efficient and cost effective methods for wide scale reuse.

Under strategic outcome number 5 (Reduce adaptation costs and build unity of purpose through meaningful engagement with DOD stakeholders), DOD commits to "working directly with



communities adjacent to installations to build shared resilience, enhance shared ecosystems, and preserve test and training lands.” The plan also notes the importance of strengthening local mechanisms supporting food and water stability. DOD should strive to support water recycling as a mechanism for building community sustainability in the locations and regions surrounding bases, installations, and other facilities. We also encourage military installations to utilize compatibility use studies to explore the expanded use of recycled water.

Indeed, some of the largest and longest standing water recycling projects are in areas directly adjacent to military bases. One example would be Hampton Roads Sanitation District (HRSD). HRSD is developing a project to treat 120 million gallons per day of wastewater to drinking water standards and use it to recharge the regional aquifer, which will support the largest concentration of military bases and facilities of any metropolitan area in the world. A secondary benefit of advanced treatment for water recycling is that it is the most effective way to remove per- and polyfluoroalkyl substances (PFAS) from water. This is particularly relevant to communities located near military bases.

Environmental Protection Agency

Priority Action 1 under EPA’s plan is to *integrate climate adaptation into EPA programs, policies, rulemaking processes, and enforcement activities*. EPA’s Office of Water administers a range of programs that help communities build climate resilience. These programs include the Clean and Drinking Water State Revolving Funds, the Water Infrastructure Finance and Innovation Act Program, and the Sewer Overflow and Stormwater Reuse Municipal Grants Program, among others. While each of these programs has funded important water recycling projects, the degree to which EPA has emphasized reuse as a resiliency tool has varied across them and across years. In order to achieve Priority Action 1, we urge EPA to emphasize water recycling as a program focus across Office of Water programs.

We also expect that in the coming weeks Congress will enact the *Build Back Better Act*, which includes first-time funding for the Pilot Program for Alternative Water Source Grants. This program will be the first nationwide program dedicated to advancing water reuse. Once enacted, EPA should support, strengthen, and invest in the Alternative Water Source Grants Program as a critical climate resiliency tool.

Priority Action 2 under EPA’s plan is *consult and partner with states, tribes, territories, local governments, environmental justice organizations, community groups, businesses, and other federal agencies to strengthen adaptive capacity and increase the resilience of the nation, with a particular focus on advancing environmental justice*. For the last three years, EPA has worked with partners and stakeholders to develop, launch, implement, expand, and improve the National



Water Reuse Action Plan (WRAP), a collaborative effort to advance water recycling across the country. The WRAP includes dozens of actions and hundreds of milestones led by more than two dozen action leaders and 80 collaborating partners within the water sector, federal government, state governments, and the NGO community. In enacting Priority Action 2, EPA should continue to support and leverage this collaborative effort to help federal, state, and local governments, businesses, industry and others build climate resilience.

In the course of developing the WRAP, more than a half dozen federal agencies worked in partnership to break down silos and secure tangible commitments to help support the integration of water recycling. This collaboration has effectively leveraged and coordinated available tools and resources throughout the federal family and has broad support among the stakeholder community. The soon-to-be-enacted *Infrastructure Investment and Jobs Act* directs EPA to establish an Interagency Working Group (IWG) on Water Reuse to continue this work and establish a more formal structure for engagement across federal agencies and with external stakeholders. The WaterReuse Association stands ready to work with EPA through the IWG and the WRAP to advance water recycling as a climate adaptation and resiliency tool.

Agency for International Development

In its climate adaptation and resiliency plan, the U.S. Agency for International Development (USAID) prioritizes the development of a new climate strategy that will “strengthen the resilience of communities and their food and water systems so they are better equipped to lead and manage efforts to address ongoing climate shocks and stresses” (pp. 6). USAID should look to water recycling systems to help achieve this goal.

USAID’s plan highlights the importance of collaborating with the Department of State on interagency strategies to address the U.S. Global Water Strategy (Pp. 8). The Department of State has helped develop and implement the [National Water Reuse Action Plan](https://www.epa.gov/waterreuse/national-water-reuse-action-plan-online-platform) (<https://www.epa.gov/waterreuse/national-water-reuse-action-plan-online-platform>), an effort led by the U.S. EPA in coordination with federal agencies across the Federal Government. State Department is leading action 11.2, *Raise Global Water Reuse Awareness and Preparedness*, and action 11.1, *Facilitate U.S.–Israel Collaboration on Technology, Science, and Policy of Water Reuse*. The National Water Reuse Action Plan is an iterative plan that changes often as existing actions are implemented and new actions are added. USAID should collaborate with both the State Department and U.S. EPA on the Action Plan by joining existing actions and/or proposing new actions.

Lastly, on pp. 19-20 of USAID’s resiliency plan, the Agency notes that it “strives to implement climate-smart practices in real property design, construction, and operation and follows



enhanced security requirements that often have the co-benefit of increasing climate change resilience.” As described in our general comment above, water recycling systems can help build water resiliency and water independence. USAID should seek to integrate municipally sourced recycled water and/or onsite water recycling into its real property design, construction, and operation.

Army Corps of Engineers

Action 3 of the Army Corps’ (Corps) plan is *Enable State, Local, and Tribal Government Preparedness*. More specifically, the Plan notes that the Corps will use its programs and expertise to support climate preparedness for state, local, and tribal governments, including by providing meaningful engagement during the project development process.

In May 2019, the Corps released [implementation guidance](#) for water reuse provisions in America’s Water Infrastructure Act (AWIA) of 2018. Section 1164 of AWIA 2018 authorizes and encourages the Corps to work with local governments to incorporate elements of local water management plans, including water reuse elements, into Corps feasibility studies where appropriate. We urge the Corps to use this authority to collaborate more closely with communities to build climate resilience through integrated water resources management and water recycling. We also urge the Corps to prioritize funding for water reuse programs while developing its annual work plan for Environmental Infrastructure (WRDA Section 219) projects.

General Services Administration

In its Climate Change Risk Management Plan, GSA notes that it is the leading provider of workplaces, acquisition solutions and policies for the Federal Government. Given its immense footprint and influence across the Federal Government, GSA actions have great significance.

Vulnerability #1 under GSA’s plan is the impact of climate change on real property. The plan notes that real property’s vulnerability to climate change is increased through short-term and long-term climate events. To address this threat, GSA’s Public Building Service “will continue to work with federal customers to set climate-based, expert-determined benchmarks at the site and facility scale.” As discussed in our opening general comment, recycled water is virtually drought-proof; so in preparation for groundwater or surface water limitations, federal agencies can produce recycled water onsite or source recycled water from a municipality, provided there are utilities in the area that are producing recycled water. Similarly, onsite water recycling systems can keep federal agencies operational when there are disruptions to centralized treatment facilities. We recommend that GSA closely consider the integration of onsite water recycling and



the use of municipally sourced recycled water at federal sites and facilities as a mechanism for meeting climate-based benchmarks.

Under Vulnerability #3 (Water and Wastewater Utilities), GSA notes that its greatest vulnerabilities to actual disruptions in water service could be in areas that experience severe drought and water shortages. The plan highlights reducing water consumption and increasing water storage as tactics for building the adaptive capacity of federal buildings, “because they put less demand on water utilities overall, especially during periods of drought.” While water conservation and storage play an important role in building resilience, GSA should equally consider water recycling as a mechanism for doing so. Water recycling, like reduced consumption and increased storage, will help “build the adaptive capacity of federal buildings[...], meet mission-critical operational needs, harden infrastructure and increase stormwater capacity.”

In its plan, GSA also commits to assessing the feasibility of tracking saltwater intrusion into freshwater supplies. We recommend that GSA look to water recycling to prevent saltwater intrusion into freshwater supplies. This is a proven and widely used practice in coastal communities across the country. The Hampton Roads area of Virginia, for example, is suffering adverse effects of sea level rise, coastal land inundation, flooding, land subsidence (from over-pumping the regional aquifer) and saltwater intrusion into the region’s groundwater. Hampton Roads Sanitation District’s major water recycling project will treat wastewater effluent to drinking water standards and use it to recharge the regional aquifer and create a saltwater intrusion barrier. Similarly, Hillsborough County, Florida manages a Saltwater Intrusion and Aquifer Recharge Program (SHARP), which is a system of recharge wells along Tampa’s coast, creating a hydraulic barrier to saltwater intrusion between the Bay and the region’s drinking water aquifer. GSA should seek to partner with utilities to use water recycling to prevent saltwater intrusion.

Department of Energy

The Department of Energy’s (DOE) climate adaptation plan focuses on the interdependency of energy and water in climate readiness. DOE lists a range of adaptation strategies that it will consider under Priority Action 2 (Enhance Climate Adaptation and Mitigation Co-benefits at DOE Sites), including reusing on-site water resources at facilities. Under Priority Action 5 (Advance Deployment of Emerging Climate Resilient Technologies), DOE commits to utilizing its facilities as testbeds to pilot innovative technologies including water reuse, particularly those that focus on energy efficiency in new treatment technologies. WaterReuse supports and encourages these efforts. We also urge DOE to continue its strong support for the National Alliance for Water Innovation as well as its successful partnership with EPA on the National Water Reuse Action Plan.



Department of the Interior

The Department of the Interior's (DOI) climate adaptation and resiliency plan identifies "Healthy Watersheds and Water Supplies" as a critical vulnerability, and within that, points out that the changing climate is causing significant changes in water quantity and quality across the country. The plan notes that ongoing and severe drought in the West is "increasingly challenging the Bureau of Reclamation's basic mission objectives to deliver needed quantities of water and power to a diversity of water users."

The Bureau of Reclamation administers some of the most important programs for building climate resilience in the West. This includes the Title XVI Water Reclamation and Reuse Grants Programs. Through Title XVI, the Bureau provides grants to communities in the 17 Western states to support projects that increase drinking water supply, restore sensitive ecosystems, and generate sustainable irrigation water, among other purposes. DOI should continue to support, enhance, and invest in the Title XVI competitive grants program as a critical climate resiliency tool. The Bureau should also explore additional and innovative ways to support water reuse, such as through salinity management and other related programs.

Department of Treasury

The Department of Treasury's climate adaptation and resiliency plan identifies water availability, demand, and quality as a major vulnerability to the operation of their "real property." To address this vulnerability, the Bureau of Engraving and Printing is incorporating onsite water reuse at both the Western Currency Facility and the new Eastern Currency Facility. One facility will incorporate a rainwater harvesting system that will reuse water for cooling towers and restrooms, while the other facility will use a steam condensate recovery system. WateReuse commends the Treasury Department for taking these steps to build the resilience of its water systems. We encourage the Department to take any opportunity to share these examples with GSA, CEQ, and other coordinating agencies to help inform the Administration's effort to build climate resilience.

Thank you for the opportunity to comment on the Administration's federal climate adaptation and resiliency plans.

Sincerely,



Patricia Sinicropi
Executive Director

