



WATERREUSE®

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President's Council of Advisors on Science and Technology
Office of Science and Technology Policy
New Executive Office Building
725 17th Street NW, Washington, D.C.

Dear President's Council of Advisors on Science and Technology,

On behalf of the WaterReuse Association (WaterReuse), I am pleased to submit our comments on recycled water and groundwater protection.

The WaterReuse Association is a not-for-profit trade association for water utilities, businesses, non-profit organizations, and research entities that advocate for policies and programs that advance water recycling. WaterReuse 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 Association appreciates that the President's Council of Advisors of Science and Technology (PCAST) is seeking to improve the Administration's understanding and stewardship of groundwater in the United States. Water recycling plays a critical role in revitalizing, enhancing, and protecting groundwater supplies across the country. Communities are using recycled water in lieu of and to reduce groundwater pumping, recharge aquifers, combat land subsidence, and prevent saltwater intrusion into freshwater supplies. Treatment technologies and processes used for recycling water can produce water that exactly matches the chemical and biological constituents that exist in a particular groundwater basin; and as such, water recycling can produce a safe and reliable groundwater supply.

The Biden Administration has championed water recycling as a water resource management tool through its work on the National Water Reuse Action Plan (WRAP), and through programs administered by the U.S. Environmental Protection Agency (EPA), Bureau of Reclamation, and other federal agencies. For example, through its work on WRAP Action 7.4 (*Increase Understanding of Current Aquifer Storage and Recovery Practices*), EPA and its partners launched an enhanced aquifer recharge resource library and published a report on the current state of practice and research associated with water reuse for aquifer recharge, storage, and recovery.

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Across federal agencies and departments, financial and technical assistance programs have long supported projects that use recycled water to protect groundwater supplies. The Bureau of Reclamation's Title XVI Water Reuse Grants Program and EPA's Water Infrastructure Finance and Innovation Act (WIFIA) Program and Clean Water State Revolving Fund (SRF) Program are just three examples of federal programs that have helped communities produce and use recycled water for groundwater replenishment. These programs have also helped communities across the country build and implement enhanced aquifer recharge projects using recycled water.

As PCAST develops its report to advance government-wide action on groundwater, we urge you to consider the numerous ways in which water recycling can help protect and enhance this critical resource.

We encourage PCAST to review the wide range of projects, including federally funded projects, that are using recycled water to recharge and protect groundwater supplies. We offer the following examples:

- In southeastern Virginia, Hampton Roads Sanitation District's Sustainable Water Initiative for Tomorrow (SWIFT) will restore the Potomac Aquifer using 100 million gallons per day of drinking-quality recycled water, reducing land subsidence and mitigating flood risk.
- Hillsborough County, Florida uses recycled water to create barriers between salt water and their coastal freshwater aquifer. Since 2015, the effort has resulted in recovery of groundwater storage levels, a halt in saltwater intrusion, and the recovery of Tampa Bay's seagrass and fisheries.
- Orange County Water District in California has been purifying recycled water for groundwater recharge since 2008. The District's Groundwater Replenishment System (GWRS) produces 130 million gallons per day of purified water, enough to serve 1 million people. The purified water is injected or percolated into the local aquifer where it blends with the native groundwater. The project also injects recycled water to protect the groundwater basin from seawater intrusion.
- In Monterey, California, a WIFIA-funded project will produce up to 10,350 acre-feet per year of purified recycled water to replenish one groundwater basin while also reducing pumping from a second groundwater basin.
- In Big Bear, California, the local utility received funds through the Bureau of Reclamation to use purified recycled water to recharge groundwater for drinking water, municipal uses, commercial uses, and environmental restoration.
- The City of Chandler, Arizona expanded its aquifer recharge capabilities by turning to recycled water, allowing the community to bank water in times of low demand and withdraw in times of high demand.



- In El Paso, Texas, funding from the Title XVI Water Reuse Grant Program is supporting the conveyance of purified recycled water to recharge the Hueco Bolson Aquifer.
- Eastern Municipal Water District in southern California prices its recycled water to cost less than groundwater pumping so that agricultural customers have a financial incentive to utilize recycled water in lieu of groundwater.

These are just a few examples of significant municipal, state, and federal investments that have been made in projects and programs that protect and enhance groundwater using recycled water. Water recycling is a critical tool that must remain a key piece of the federal government's groundwater protection strategy.

In addition to these overarching comments, WateReuse offers the following responses to the specific questions posed by PCAST.

How can we ensure clean and safe groundwater, especially for the communities that are affected most by groundwater contamination and depletion?

As detailed above, water recycling is a proven tool for enhancing and protecting groundwater supplies. The Federal Government, through agencies such as EPA, the Bureau of Reclamation, and the Natural Resources Conservation Service, should scale up investments in water recycling projects and ensure that these types of projects are prioritized for federal funding opportunities. Moreover, the Federal Government should continue to invest in collaborative, interagency and interdisciplinary initiatives that advance water-reuse-based groundwater protection and recharge efforts; such initiatives include the EPA's National Water Reuse Action Plan and the Federal Interagency Working Group on Water Reuse.

How can we engage with communities to successfully ensure a sustainable supply of groundwater, including for agriculture, industry, energy, human consumption, and healthy ecosystems and biodiversity?

The WateReuse Association and its state and regional sections stand ready to partner with the White House and federal agencies and departments to ensure a sustainable supply of groundwater through water recycling. As PCAST develops its report, we encourage you to connect with our network of utilities, engineering firms, technology providers, universities, state regulatory agencies, and other experts to solicit expertise, data, and other feedback. WateReuse would gladly help PCAST organize a listening session or workshop. We also host several events throughout the year, including the annual WateReuse Symposium in March, which provides an opportunity to connect with practitioners and experts, present technical information, and collect feedback.

What strategies and incentives can help limit groundwater over-use?



Water recycling can prevent the overuse of groundwater by providing communities and industry with a safe, sustainable alternative supply; and can help restore and augment groundwater supplies through enhanced aquifer recharge. Water recycling projects, however, can be expensive. For municipal utilities and other water development authorities, federal funding programs such as the SRFs, WIFIA, and Title XVI provide cost-share to make these projects more attainable. As suggested above, the Federal Government, through agencies such as EPA, the Bureau of Reclamation, and the Natural Resources Conservation Service, should scale up investments in water recycling projects and ensure that these types of projects are prioritized in in the President's Budget Request and in federal funding opportunities.

While supporting municipal investments in local and regional water recycling projects is critical, equally as important is advancing the adoption of water recycling by industry, including energy producers, manufacturers, and cloud computing companies, among other industrial verticals. According to the United States Geological Survey, in 2015, industry (not including agricultural irrigation) was responsible for nearly 50 percent of the groundwater and surface water withdrawals in United States. Given the outsized role that industry can play in protecting water resources, the Federal Government should seek to create opportunities and incentives for industrial water users to use recycled water to replenish groundwater.

EPA's Environmental Finance Advisory Board (EFAB) is currently conducting a study and report on the potential benefits of a federal investment tax credit to support greater industrial water recycling. We urge the Administration to work with Congress to enact a tax credit that supports (1) the adoption of onsite water recycling systems to treat and recycle industrial process water onsite, (2) the purchase of municipally produced recycled water in lieu of withdrawing groundwater, and (3) co-investments made by companies through public-private partnerships to build out municipal water recycling systems.

By prioritizing federal investments in water reuse, tax credits and other incentives to support the use of recycled water by industry and other sectors, and collaborative initiatives such as the WRAP and Interagency Working Group on Water Reuse, the Federal Government can help protect and enhance groundwater across the United States. Thank you for considering our views.

Sincerely,



Patricia Sinicropi
Executive Director

