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EPA Awards Nearly \$8M for Research Grants to Advance Groundwater Availability and Quality

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Contact Information

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WASHINGTON – Today, the U.S. Environmental Protection Agency (EPA) announced \$7,837,196 in funding to four institutions to research the use and risks of enhanced aquifer recharge (EAR) to improve groundwater availability and quality.

EAR is the practice of using water sources to replenish and supplement existing groundwater supplies for storage, potential reuse, and to restore streamflow. While EAR implementation and management has been an active topic of research for many years, significant knowledge gaps remain concerning best practices in the design, siting, performance (hydrologic and water quality), longevity, maintenance, and monitoring of EAR in different land use and hydrogeologic settings. Other terms that are used interchangeably with EAR include managed aquifer recharge, artificial recharge, and aquifer storage and recovery.

“As climate change and increasing demand diminishes the availability of groundwater, identifying innovative solutions for EAR is an important step in protecting our water resources,” said **Chris Frey, Assistant Administrator of EPA’s Office of Research and Development**. “This research will provide the knowledge needed to help improve water supplies for communities experiencing increased intensity, frequency, and duration of drought and extreme heat.”

With the Science to Achieve Results (STAR) research funding announced today, investigators will assist communities throughout the United States in evaluating whether and how to invest in safe and sustainable EAR strategies for many goals including enhancing water supplies, protecting water quality, maintaining aquatic ecosystems, reducing sinking land and avoiding sea water intrusion. This research will enable state, Tribal, and local water quality managers to adopt safe EAR practices while understanding the risks, benefits, and consequences from using different source waters and given differing subsurface geology and groundwater end use.

The following institutions are receiving awards:

- **County of Los Angeles, Department of Public Works, Alhambra, Calif.,** to explore the long-term, regional potential for groundwater recharge through urban best management practices and develop a free and open-source user-friendly tool for evaluation of performance of EAR practices.
- **Oklahoma State University, Stillwater, Okla.,** to test the effectiveness and impacts of rural EAR structures and determine if they can be deployed for rural land management strategies to safely increase groundwater supplies.
- **Carnegie Mellon University, Pittsburgh, Pa.,** to increase EAR adoption by better understanding the potential mobilization of contaminants and their risks to water quality in key aquifer systems across the U.S.
- **Virginia Polytechnic Institute and State University. Blacksburg, Va.,** to develop a web-based decision support tool to guide communities, agencies, and practitioners to design safe and sustainable implementation of EAR in the U.S. Coastal Plain and in regions with similar hydrogeology.

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