

Protecting America's Water Supply

Communities across the nation are already experiencing the consequences of **too much water, too little water, and water that is unsafe to use**. Without strategic investment in research, education, and Extension, these challenges will intensify—threatening public health, agriculture, ecosystems, and the economy. Land-grant universities are uniquely positioned to lead the way with solutions that improve water management, strengthen resilience, and protect resources for future generations. But doing so requires new investment now—before the costs of inaction escalate beyond recovery.

Priorities:

- Increase water use efficiency during food production and processing
- Safeguard water quality
- Reduce production losses from waterlogging, flooding, and drought

What's at stake:

- **Limited access to safe water** — shrinking water supplies will strain drinking water systems in both rural and urban communities and drive up costs for households and agriculture.
- **Economic disruption** — lower river levels will slow barge traffic, raise shipping costs, and weaken U.S. farmers' competitiveness, while reduced water levels hurt recreation, tourism, and local economies.
- **Infrastructure damage** — overdrawn groundwater will trigger land subsidence, cracking roads, bridges, levees, and wells, and reducing natural flood protection.
- **Public health threats** — degraded water quality will increase exposure to contaminants, placing communities at greater risk of illness.
- **Long-term resource loss** — depleted aquifers and polluted waterways will be harder—and costlier—to restore, limiting options for future generations.

Increased investment in agricultural research, education, and Extension can improve the lives of all Americans by:

- **Increasing resilience to droughts and floods**
 - Problem: Droughts cost the U.S. more than [\\$6 billion per year](#) and floods cost approximately [\\$5 billion per year](#), threatening the ability of communities to respond to such events and thrive.
 - Land-grant Solution: Create a multi-year strategy that integrates innovative practices, Extension programs, and water monitoring to inform policy interventions aimed at increasing resilience to floods and droughts.
 - Benefit: Increased resilience to floods and droughts will result in cost-saving personal, municipal, and agricultural property and infrastructure improvements.
- **Protecting water quality**
 - Problem: Aging U.S. water infrastructure cannot keep pace with water quality standards, and nutrient runoff in agricultural systems can lead to environmental issues like water contamination.
 - Land-grant Solution: Advance best practices, tools, Extension programs, and policies that improve and protect water quality.
 - Benefit: Protecting water quality will both protect public health and preserve aquatic ecosystems that are important for the environment and the economy.

- **Promoting water conservation**

- Problem: Nearly [30 million](#) Americans live in areas with limited water supply, and more than [2 trillion](#) gallons of treated drinking water are lost annually due to leaks, broken mains, and outdated technology in the aging U.S. water system.
- Land-grant Solution: Collaborate with communities and public officials to develop strategies addressing water accessibility challenges.
- Benefit: Conserving water will protect the health of communities and agricultural systems now and for generations to come.

- **Increasing water use efficiency**

- Problem: Agriculture is responsible for a significant amount of the total consumptive water use in the U.S. and irrigation accounts for [47%](#) of freshwater withdrawals, straining an already limited water supply and threatening agricultural productivity.
- Land-grant Solution: Advance best practices, tools, and Extension programs, and policies for improving crop and livestock productivity while decreasing water use.
- Benefit: Increasing water use efficiency will increase agricultural productivity, protect crops and livestock, and secure an affordable food supply.

Strategic investment in agricultural research, education, and Extension will protect America's water supply and ultimately safeguard our national security, strengthen our economy, and secure our food future for generations to come.