



Water Management, Partnerships, Rights, and Market Trends

An Overview for Army Installation Managers

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This report assesses water management, partnerships, rights, and market trends and opportunities, and how Army installations can potentially use them to improve programs and investments in water and wastewater systems. It provides examples from across the United States, along with detailed case studies of two states and two Army installations, and recommends ways to improve installation water security, programs, and infrastructure investments.



RESEARCH QUESTIONS

- What are some of the key challenges facing water managers today?
- What are the ways that water managers try to manage and access water supplies?
- What are the current water partnership and market trends?
- What water market mechanisms and partnership opportunities can Army installations use to improve programs and investments in drinking water, wastewater, and other water systems?
- What Army policies and activities can be adjusted to improve installations' water security, programs, and infrastructure investments?



KEY FINDINGS

Water Management Challenges

- Water managers today face many challenges, including aging infrastructure, water quality concerns, depleting groundwater aquifers, climate change effects on water availability, uncertain water supply, and public demands for low-cost water.
- The traditional way of solving water problems—by increasing access to surface water and groundwater supplies—is often no longer viable, because such water sources are mostly allocated or over-allocated.

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- Today, communities and water management agencies seek to conserve and manage existing water resources more effectively.
- Water managers are now using more nontraditional sources, including reclaimed water, stormwater runoff, and some desalinated water. Wastewater is becoming a valuable asset.
- Collaborations and partnerships for water planning and sharing of supply and infrastructure play an important role in regional, state, and local water planning and management and are likely to increase.
- Many water market experiments are being used to reallocate existing supplies to meet growing demands, but they are in their infancy.

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- Water markets will provide future opportunities for Army installations.
- Water rights are becoming more important. Some installations are at risk of losing some water rights; water rights need to be actively managed and considered for all water sources, including surface water, groundwater, effluent, and stormwater runoff.
- State and local governments play a key role in planning and managing water sources and rights, and are a partnership opportunity for Army installations.
- Traditional installation water partnerships, such as Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs), can be useful tools.

RECOMMENDATIONS

- The Army should monitor how water market activities are evolving. It also should monitor state and local government water allocation policies, especially near major installations. And it should invest more headquarters staff expertise into water issues.
- The Army needs to support installation personnel to ensure that water rights are properly established, documented, maintained, and enhanced.
- Army headquarters should provide detailed, practical “how to” guidance on water rights for personnel who have water responsibilities.
- Installations should collaborate and partner more with state and local governments on water planning, management, and rights.
- The Army should encourage installations to incorporate more water projects into their ESPCs and UESCs and encourage water utilities to partner in UESC projects.
- The Army also should assess alternative approaches for funding the needed water infrastructure investments, including partnerships with local governments and other organizations.
- The Army should study the implementation of previous Army water utility privatization deals to develop lessons learned and incorporate them into future deals so those deals are conducted more effectively and efficiently and can ensure installation long-term water rights, security, conservation, and market opportunities.
- The Army should try to ensure that its installations’ successful water-conservation efforts are considered during periods of regional and local water scarcity.



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