

Verbal Statement to the Senate Energy and Natural Resources Subcommittee on Water and Power

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by

MR. L. JERRY HANSEN

Principle Deputy

Assistant Secretary of the Army for Installations Energy and Environment

Madame Chairwoman and members of the Committee, it is a pleasure to appear to discuss water scarcity and how the Army's water related programs, and particularly our efforts to create net zero installations and reduce water requirements in contingency operations, are part of the solution. We are especially grateful for this Committee's interest in the Army's energy and water reduction programs. The Committee's on-going efforts, coupled with the President's vision for sustainability, will help our installations accomplish their world-wide missions now and into the future without disruption.

The Army faces significant man-made and natural threats to our energy and water supply requirements both at home and abroad. Just this past year Army installations have faced a Tsunami and earthquake in Japan, tornados in the South, and droughts in the West. We must address these threats and work to ensure that the Army of tomorrow has the same access to resources as the Army of today.

Addressing sustainability is operationally necessary, financially prudent, and essential to mission accomplishment. We are creating a culture that recognizes the value of sustainability measured not just in terms of financial benefits, but benefits to maintaining mission capability, quality of life, relationships with local communities, and the preservation of options for the Army's future. The Army is proud to lead the way in meeting water intensity reductions in the Energy Policy Act of 2005. Our installation water intensity has dropped from 57.6 gallons/per gross square foot in 2007, to 48.8 in 2010.

The centerpiece of our program to appropriately manage our natural resources is our Net Zero program. A Net Zero Water Installation limits the consumption of freshwater resources and returns water back to the same watershed so as not to deplete the groundwater and surface water resources of that region in quantity and quality over the course of a year. We have pilot installations identified in Net Zero energy and Net Zero waste as well.

The net zero water strategy balances water availability and use to ensure a sustainable water supply for years to come. This concept is of increasing importance since scarcity of clean potable water is quickly becoming a serious issue in many areas. The continued draw-down of major aquifers results in significant problems for our future. Strategies such as harvesting rain water and recycling discharge water for reuse will reduce our need for municipal water, and also reduce our discharges of storm water or treated wastewater.

In addition to the net zero initiative, our water security mission makes water a consideration in all Army activities to increase efficiency, reduce demand, seek alternative sources, and create a culture of water accountability while sustaining or enhancing operational capabilities. For

example, Installation Management Command will be holding users accountable to modernize facilities, install new technologies, and leverage partnerships that can provide an increased level of water security. This will lead to increased sustainability, a more resilient water-related infrastructure, and enhanced mission assurance.

The Army has identified eight installations as Net Zero water pilot sites. Let me highlight two examples of interest to Committee Members:

Camp Rilea, OR: This 281,000 acres installation is striving to reach net zero water, by successfully redesigning their water supply and wastewater capability so that they can operate independent of the existing municipal supply, if needed, to keep the North Coast Emergency Operations Center operable 24/7.

Camp Rilea also recently installed several Rapid Infiltration Basins to simultaneously supplement their existing reclaimed water reuse capabilities and comply with regulatory requirements for wastewater discharge.

Joint Base Lewis-McChord, WA: Joint Base Lewis-McChord has requested MILCON funds to replace the aging and obsolete wastewater treatment plant at the installation. The proposed new plant will generate Class A reclaimed water which can then be reused as part of the net-zero initiative. The project is designed to reduce/eliminate stormwater discharges into a creek and reuse it. JBLM is including stormwater in its Net Zero goals. The installation has been meeting the EO 13514 required water use reduction (2% per year) mostly through water conservation projects reducing the amount of water used for irrigation.

In parallel to net zero water, the Army is also implementing solutions to reduce water use in our contingency operations. Reducing water use directly decreases the threats to our convoys because 70 to 80 percent of our resupply weight or convoy weight is fuel and water. Less water means fewer convoys, which means fewer Soldiers are placed at risk. Deploying technology at our contingency bases, such as the Shower Water Reuse System, makes the Army more efficient, demonstrates our commitment to use resources more efficiently and directly enhances the mission. The magnitude of water savings associated with the Shower Water Reuse System deployed at a 600 man Force Provider tent city, are pretty impressive – in many cases the system produces a simple economic payback in less than a week of use.

From the net zero water pilots and contingency basing initiatives, we will be collecting best management practices and lessons learned and will share these as widely as possible.

Madame Chairwoman, this concludes my statement. Thank you again for the opportunity to appear before you today. I look forward to your questions.