



U.S. Department of Energy Nevada Site Office

## EM NEWS FLASH



### Clark County Students Soak Up the Topic of Groundwater

Did you know that what goes into the ground today can become part of the groundwater tomorrow? Students at two Clark County elementary schools recently got to see this process in action as part of an educational outreach program sponsored by the [U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office \(NSO\)](#).

During two separate demonstrations—one at Lomie Heard Elementary School (March 29, 2012), and the second at Vanderburg Elementary School (May 24, 2012)—NSO groundwater expert Jeff Wurtz\* shed light on the subject of groundwater for some 400 students. As part of the demonstrations, students were invited to inject dyed water into a geologic “ant-farm” display and observe how water flows through layers of sand, gravel, and clay.

Simple observations like these, Wurtz explained, familiarize students with the concepts of permeability, the water table, aquifers, and confining units (layers of rock that cannot be penetrated). “It also allows them to see responses to groundwater pumping and how contaminants can move in groundwater,” he added.



The majority of the students attending the demonstrations have received instruction on the water cycle as part of their school curriculum. Understanding groundwater, explained Vanderburg 5th-grade teacher Katia Cheetany, remains particularly difficult for some. “My students tend to ask many questions about groundwater, so I was very excited that our students had the chance to see the hands-on activity related to a very important concept.”

According to Wurtz, the demonstration helps kids visualize and understand real hydrogeological settings like springs, lakes, and wells. “The ‘ant farm’ visual is effective because it contains natural materials kids can relate to.”

For more information on NSO educational outreach programs, send an e-mail to [envmat@nv.doe.gov](mailto:envmat@nv.doe.gov) or call 702-295-3521. To learn more about NSO’s groundwater program at the Nevada National Security Site, visit the following website: [www.nv.energy.gov/emprograms/groundwater.aspx](http://www.nv.energy.gov/emprograms/groundwater.aspx).

*With the help of an “ant-farm” style geologic display, Wurtz and a Vanderburg fifth grader demonstrate how water flow is affected by different soil types.*

*\*Wurtz is part of a team of NSO groundwater experts involved in an intensive, long-term study program to better understand groundwater contamination resulting from historic underground nuclear tests at the Nevada National Security Site.*