



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Kenny C. Guinn, Governor

Allen Biaggi, Director

Leo M. Drozdoff, P.E., Administrator

For Immediate Release:
September 7, 2006

NEWS RELEASE

Contact: Dante Pistone
775.687.9395

State To Fund Mercury Sampling Sites

CARSON CITY — The Nevada Division of Environmental Protection (NDEP) has stepped forward to fund two northern Nevada mercury air sampling sites that otherwise may have been forced to close due to lack of funding. In addition, a new site is being constructed in the Reno-Sparks area.

“It’s vitally important that mercury air sampling continue in northern Nevada,” said NDEP Administrator Leo Drozdoff. “There’s a real lack of sound scientific data concerning the various sources of airborne mercury, how mercury is transported and deposited, and its impacts on health and the environment.”

NDEP has committed more than \$69,000 to support the operation of the three sites and related research. The two existing sites are located in northcentral and northeastern Nevada, one on the Lesperance Ranch north of Winnemucca and the other on the Gibbs Ranch north of Wells. The new site will be located on the University of Nevada, Reno (UNR) farm at east McCarran Blvd. and Mill St. The sites will measure deposition of mercury in wet atmospheric conditions such as rain and snow.

In May, NDEP also was awarded a \$364,000 research grant from U.S Environmental Protection Agency (EPA) to fund UNR’s development of an easily deployable sampling system to detect mercury in dry air. “The development of easily deployable, less expensive samplers will help improve monitoring in large dry geographic areas such as rural Nevada and help us better understand dry deposition of mercury in the arid West,” said Colleen Cripps, deputy administrator of NDEP in charge of air pollution control. She noted that UNR scientists were instrumental in designing the research program.

The two existing wet-deposition monitoring sites are part of the national Mercury Deposition Network (MDN), a cooperative monitoring program comprised of federal and state agencies, academic institutions, Native American tribal governments and private organizations. The MDN provides a nationally consistent survey of mercury deposition in wet conditions; identifies long-term pattern changes in deposition rates over time and space; and provides high-quality data for use in estimating deposition rates locally and between sites, and for future mercury policy and modeling efforts.

There are currently 88 MDN sites across the United States, but only two in the Great Basin. The new Reno-Sparks site will become part of the network and will be one of the few in the nation to measure mercury emissions in an urban area.

EPA has agreed to fund two years of data analysis from the sites as well as the uploading of the data to the MDN. The existing sites had been funded by the UNR since early 2003 with grant money from the federal government. Drozdoff said NDEP will continue to work with EPA and other funding sources to secure long-term funding for the sites.

“These initiatives are part of a comprehensive mercury management program NDEP is undertaking to gain better understanding of mercury emissions in Nevada, while continuing our aggressive efforts to control and reduce those emissions,” Cripps said. She explained that the management program is a three-pronged approach involving: control of mercury emissions from mines, control of mercury emissions from power plants, and control of the transportation and storage of elemental mercury.

Earlier this year, the State Environmental Commission approved new NDEP regulations mandating installation of state-of-the-art mercury controls at all mines in Nevada that produce mercury emissions. New regulations are also being formulated to control mercury emissions from electric generating plants in Nevada, Cripps said. (see: <http://ndep.nv.gov/mercury/index.htm>)

In addition to manmade sources, Nevada is home to large areas of naturally occurring mercury. Natural sources include gases from volcanic areas and geothermal vents, as well as evaporation from naturally enriched soils, wetlands and oceans. In addition to local and regional sources, there is a large pool of mercury circling the globe in the upper atmosphere containing mercury emissions from as far away as Asia. Scientists believe that mercury from the global pool can be deposited almost anywhere.

Once deposited, mercury can bioaccumulate in animal and plant tissue through a series of complex reactions that scientists don't fully understand. As higher organisms consume these plants and animals, they also consume the mercury in ever-increasing amounts, a cycle that repeats itself all the way up the food chain. Of particular concern is mercury accumulation in fish.

The health affects in humans who ingest too much fish containing mercury can include neurological damage and danger to pregnant women and their fetuses, as well as young children. Low-level exposure has been linked to learning disabilities in children.

###