

# Early-Warning Water Security System to be Tested

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Colorado State engineering researchers have begun testing an early-warning security system designed to alert city utility officials when major pollutants are detected in water supplies.

If installed, the real-time monitoring system, integrated by ST-Infonox of California, would help city officials respond quickly to foreign substances in the water distribution system, helping to combat any potential terrorist or natural threats, said Sam Araki, chief executive officer and president of ST-Infonox Inc.

ST-Infonox officials are working with city officials in Loveland and Fort Collins to test the technology on municipal water systems.

Ralph Mullinix, director of Loveland Water and Power, said early warning systems are needed because water distribution systems are most vulnerable after the water leaves the treatment plant.

“Loveland Water and Power is pleased to participate as a pilot site for the development of the ST-Infonox early warning system for our water supply,” Mullinix said. “We hope this system can be developed and cost effectively integrated into every water system in the United States and throughout the world.”

In March 2004, the U.S. General Accounting Office issued a report on the vulnerability of the water distribution system and urged collaboration with industry to improve real-time monitoring. The report stated that

water industry experts consider a lack of monitoring systems one of the most vulnerable points of water supplies.

“No economically viable monitoring system currently exists for water distribution systems in the country,” Araki said. “This technology will help address vulnerabilities in our water.”

“The potential benefit of this water distribution technology is tremendous,” said Wade Troxell, associate dean for research and economic development in the College of Engineering. “These kinds of partnerships, such as this one between Colorado State and ST-Infonox, intends to provide a market-based solution that can potentially have a global impact on society. This is our role as a 21st century land-grant institution.”

ST-Infonox is working with Ken Carlson, a civil engineering professor at Colorado State, and Amy Pruden, an assistant professor, to test the SCOPEH2O system in a laboratory environment. Carlson has traditionally studied breaches in drinking water distribution systems, drinking water contaminants and natural treatment solutions for drinking water.

“The methods that we’ve developed for simulating intentional distribution system contamination events are unique – there are only a limited number of labs in the country that have this capability,” Carlson said. “The project we’re doing with ST-Infonox could help us learn much about how to help the country protect its water resources, particularly drinking water.”

Source: Colorado State University

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