

2026 DARCY LECTURE

University of Wisconsin-Madison

Steven Loheide, Ph.D.



Hosts: OSU-Cascades
Central Oregon Community College
Deschutes River Conservancy
Oregon Water Resources Department
US Geological Survey

Date: October 26, 2026

Time: 5:30 PM PT

Location: OSU-Cascades
Ray Hall Atrium
1500 SW Chandler Ave
Bend, OR 97702

Dr. Steven Loheide is the Distinguished Professor of Water Resources Engineering in Civil and Environmental Engineering, Geological Engineering, Freshwater and Marine Sciences and Water Resource Management at the University of Wisconsin – Madison. He received his BS in Environmental Chemistry and Geology from the University of Northern Iowa MS in Geology from Indiana University, and PhD in Hydrogeology from Stanford University. As an ecohydrologist, Loheide’s research focuses on the interactions between ecological and hydrological processes in natural and built systems with special attention to the role of groundwater.

Groundwater Recharge Regimes are in Flux

Groundwater provides drinking water for people, supports agriculture, and sustains healthy ecosystems, but has been depleted in some regions due to overuse. Groundwater is replenished through the process of groundwater recharge. After precipitation infiltrates into the soil, a portion is returned to the atmosphere through evapotranspiration, but some may percolate downward until it reaches the water table and recharges the aquifer. The process of groundwater recharge varies substantially in space and through time due to soil type, weather conditions, and vegetation. Case studies will be used to illustrate how groundwater recharge regimes are altered by changes in climate and shifts in land use. Groundwater level responses to recharge events were used to quantify groundwater recharge rate differences at locations with different land cover. Numerical modeling was used to diagnose the causes of changing recharge rates and predict the consequences of these changes across a range of environmental settings. A process based understanding of the factors that drive changes in groundwater regimes is critical to sustainable management of groundwater resources under environmental change and avoiding or minimizing unintended consequences of human activities.