

# The Department of Earth and Environmental Sciences presents **THE 2020 FARVOLDEN LECTURE**

THURSDAY  
**NOV  
19**

## “Nonpoint source pollution in agricultural landscapes: Assessment, monitoring, regulation, and management.”

*Over 70% of California’s \$40 billion irrigated agriculture sector and over 90% of its animal agriculture (predominantly dairy) is located in California’s Central Valley. Groundwater is a critical source of drinking water throughout the region. The nitrate limit for drinking water (45 mg/L) is exceeded in nearly 20% of drinking water wells (over 40% of domestic wells in some areas). The Central Valley Regional Water Board, in charge of implementing the Water Quality Control Act (WQCA) in this region, developed groundwater-focused permitting programs for dairies (2007) and for irrigated lands (2012), and a new framework for integrated management of salt and nitrate discharges from all sources to groundwater and surface water (2020). The first decade of these permitting efforts focused on developing detailed groundwater quality assessments that clearly linked agriculture to groundwater nitrate. Highlights from this work will be presented in this presentation. The next phase of these programs includes the development of regional groundwater quality monitoring programs, development of management practices protective of groundwater quality, identification of management targets, and the delivery of outreach and education programs to growers. Local “Management Zones” will be established to further manage groundwater (and surface water) nitrate. Progress and specific challenges related to the implementation of these regional groundwater management strategies will be discussed within the context of sustainable agriculture in this region.*



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### HIGHLIGHTS OF THE EVENT

- > Welcome and brief Department Update
- > Farvolden Scholarship Presentation
- > Guest Speaker
- > Virtual Reception

**Please see the website for more details:**

[uwaterloo.ca/earth-environmental-sciences/outreach/farvolden-lecture-series-and-symposium](http://uwaterloo.ca/earth-environmental-sciences/outreach/farvolden-lecture-series-and-symposium)

### WHEN

November 19, 2020  
2 p.m.

### WHERE

Zoom presentation  
Link provided  
following registration



The Farvolden Lecture Series was initiated in 1996 as an annual celebration in honour of Dr. Robert N. Farvolden. This lecture series is supported by the Farvolden Scholarship Fund and the Department of Earth and Environmental Sciences.



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