



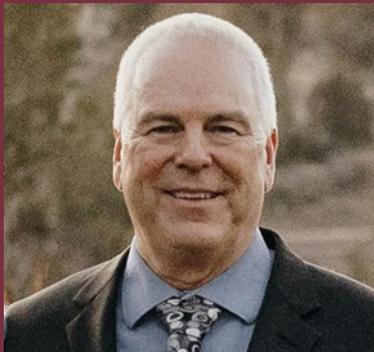
2025-2026 EOAS Colloquium Series

A Bellwether for Change: Groundwater and Sea Level Rise in Southeast Florida

Interactions between post-glacial sea level and groundwater likely sculpted the current landscape of Southeast Florida. Following a stabilization of sea level 7 thousand years ago, which has been credited with an explosion of complex human societies, sea levels are on the rise again in Southeast Florida, and groundwater is rising along with it. As in many low-lying coastal areas, this means there is less room for stormwater storage in the subsurface. A groundwater-centric view of flooding may be appropriate in many of these environments.

Dense urban development near the shore severely limits permeable area for stormwater infiltration and exposes infrastructure to corrosive saltwater. Disposal of fresh stormwater into saltwater lenses and wedges via injection wells is a widely applied strategy that has not been investigated before; exploratory simulations are being conducted. While the corrosive effects on metallic pipes and above-ground reinforced concrete are well known, the impacts of saltwater interfaces and tidal fluctuations in the subsurface on foundations passing through zones of varying salinity have not been broadly investigated.

The 2021 collapse of the Surfside tower and the observed sinking of numerous high-rise buildings in Southeast Florida demand a fuller understanding of subsurface conditions and processes. A near-shore coastal subsurface monitoring system is being implemented.



2026 Birdsall-Dreiss/LaMoreaux
Distinguished Lecture, Sponsored by
the Geological Society of America
Hydrogeology Division

Prof. Michael Sukop
Institute of Environment
Florida International University



Time: 3:00 PM, Friday, February 20, 2026

Location: EOA 1044

Zoom link: <https://fsu.zoom.us/j/95638744138>

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