



Fall Seminar Series

Thursday, September 25th @ 3 pm
Room 200, Oceanography & Physics Building
Or Via Zoom

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Title

**Offshore Freshened Groundwater: Insights from
Modeling and Field Investigations**

ABSTRACT

Recent observations from around the world suggest that Offshore Freshened Groundwater (OFG) reservoirs may hold a substantial amount of freshwater on a global scale. Accordingly, interest in OFG systems and their potential to serve as an unconventional water resource for stressed coastal communities is growing. However, whether OFG can be extracted—and what the collateral impacts might be—strongly depends on the underlying hydrogeologic mechanisms that govern these systems, which are still poorly understood. This talk will present new insights into the dynamics and hydrogeologic controls on OFG, drawing on site-specific and generalized studies. Key findings that will be presented are the importance of submarine structures and morphologies in facilitating onshore-offshore hydraulic connections that lead to OFG. Importantly, the lateral (alongshore) dimension is typically neglected in OFG studies. Advanced 3D modeling will be presented to highlight the role of alongshore dynamics and their overall impact on OFG.

Zoom: Contact OES Admin- OESadmin@odu.edu