

CONCURRENT SESSION 7 – HAZARD RESPONSE

Hazardous and Contaminated Sites within Salt Marsh Migration Corridors in Rhode Island

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As salt marshes migrate upland due to sea level rise, they will encounter many kinds of coastal development and infrastructure. Hazardous and contaminated sites (HCSs) -- facilities and infrastructure that store, use, or release toxic substances -- are particularly concerning obstacles to salt marsh migration because of their potential to release toxic contaminants. Understanding their presence within migration pathways is needed to inform coastal resilience planning. To understand what kinds of HCSs may encounter migrating marsh in Rhode Island, we inventoried sites from federal and state sources and overlaid them with projected marsh migration corridors. We found that HCSs are extensive across marsh migration corridors in the state, especially in urban areas. Among the most common HCSs in and around Rhode Island salt marshes are stormwater outfalls; underground storage tanks; and facilities registered with EPA's Resource Conservation and Recovery Act (RCRA), EPA's National Pollutant Discharge Elimination System (NPDES), or Rhode Island Department of Environmental Management's Site Investigation and Remediation (SIR). Decisions to either allow marsh migration or erect physical barriers at these sites will influence future salt marsh extent, marshes' ability to provide ecosystem services, and public health exposures to toxic releases. As Rhode Island works to promote coastal resiliency, this inventory can inform decisions about which HCSs to prioritize for remediation, and which marshes to prioritize for conservation and restoration.
