



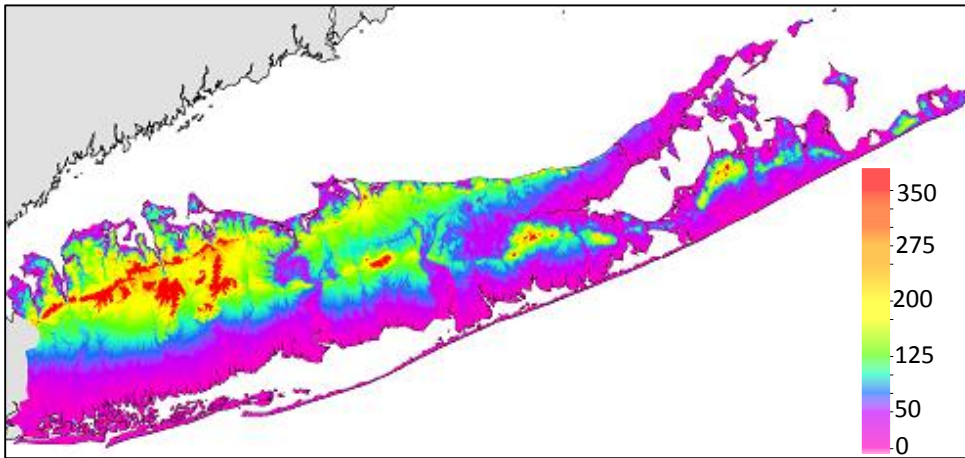
## Task 2.1:

Interactions of Water Bodies with  
Transportation Infrastructure  
SBU lead – Chris Gobler

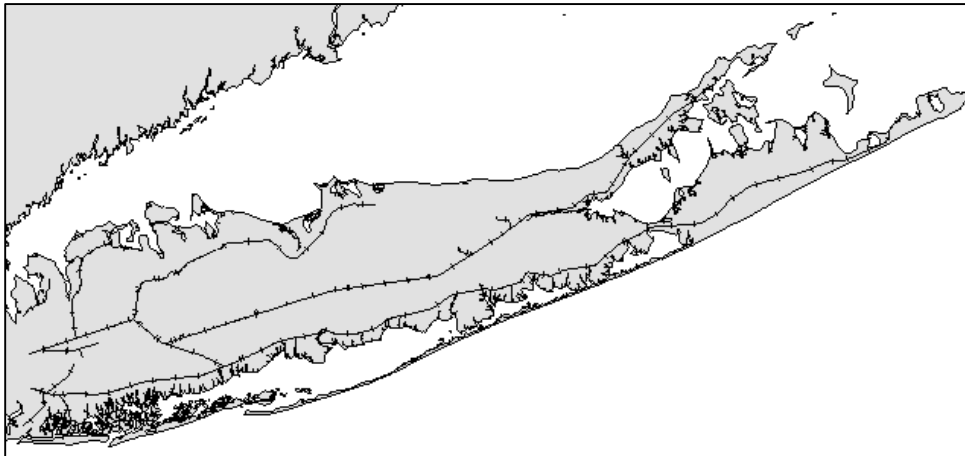
## Task 2.1 objectives, SBU

- Quantify flooding of Long Island transportation infrastructure (roads, rails) during **Hurricane Sandy**.
- Quantify flooding of Long Island transportation infrastructure (roads, rails) **under FEMA and other storm surge scenarios**.
- Quantify flooding of Long Island transportation infrastructure (roads, rails) under **multiple sea level rise scenarios**.
- Assess failure modes due to the interactions and thresholds of impact
- Assess vulnerability of the Long Island road and rail network, and potential inundation of transportation infrastructure.

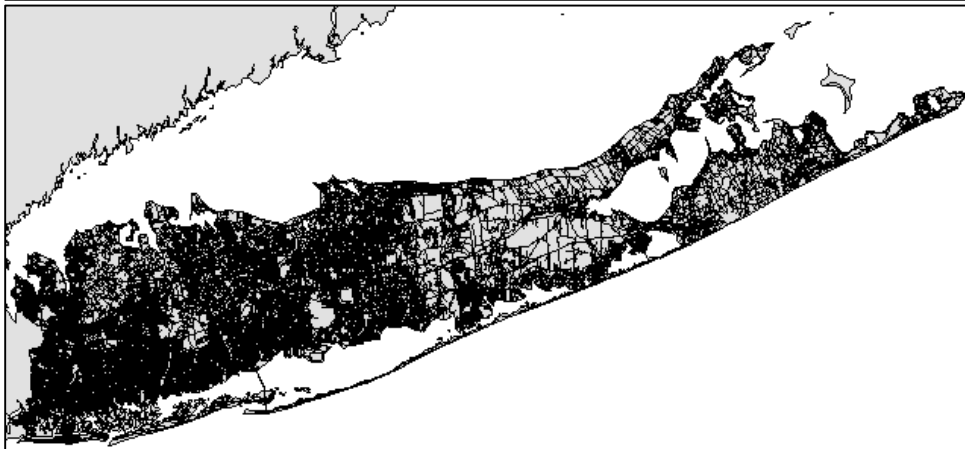
# Geographic information systems approach



Elevation (ft)

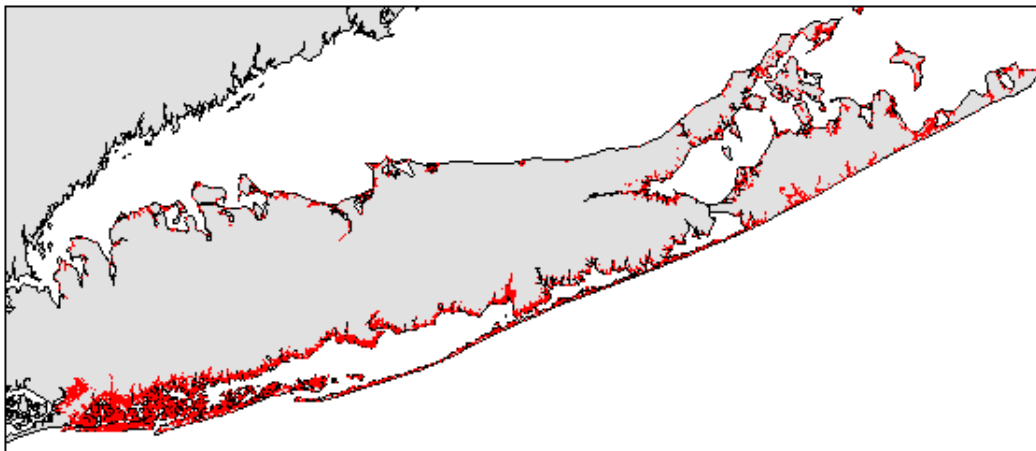


Railroad Lines

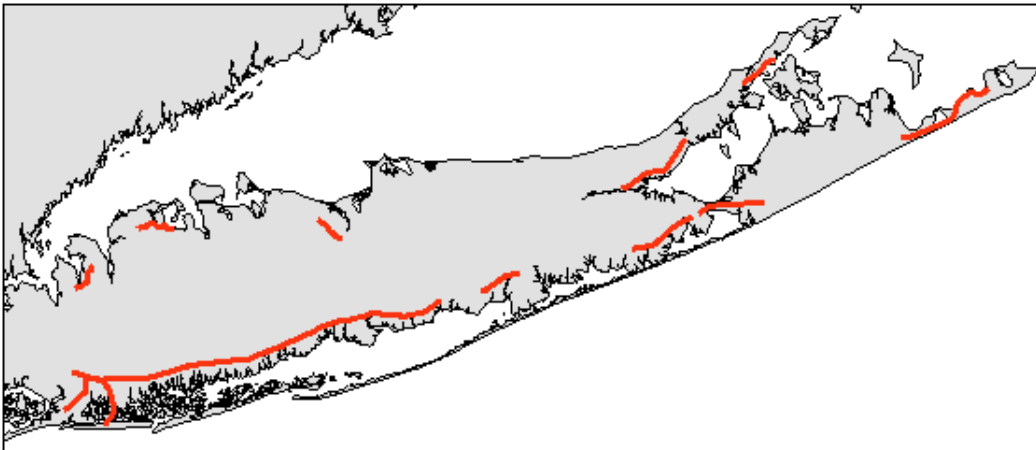


Roads

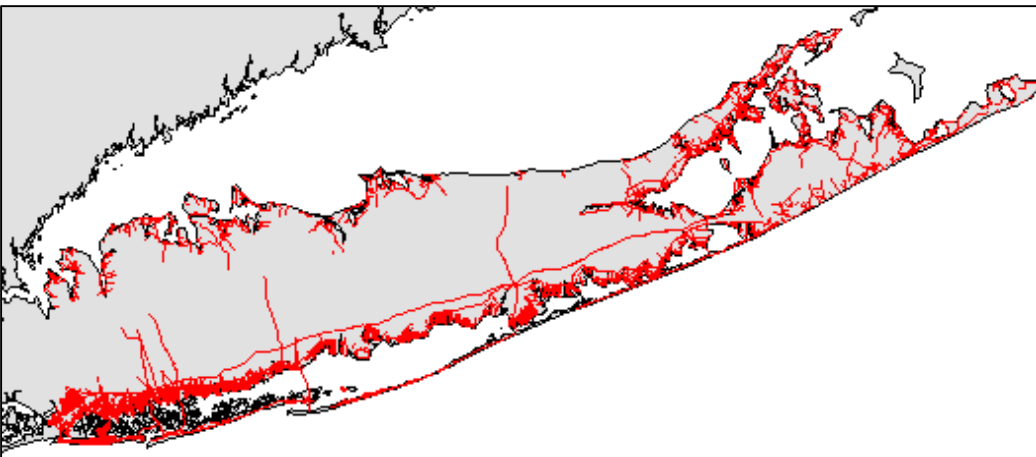
# Hurricane Sandy model



Hurricane Sandy storm surge

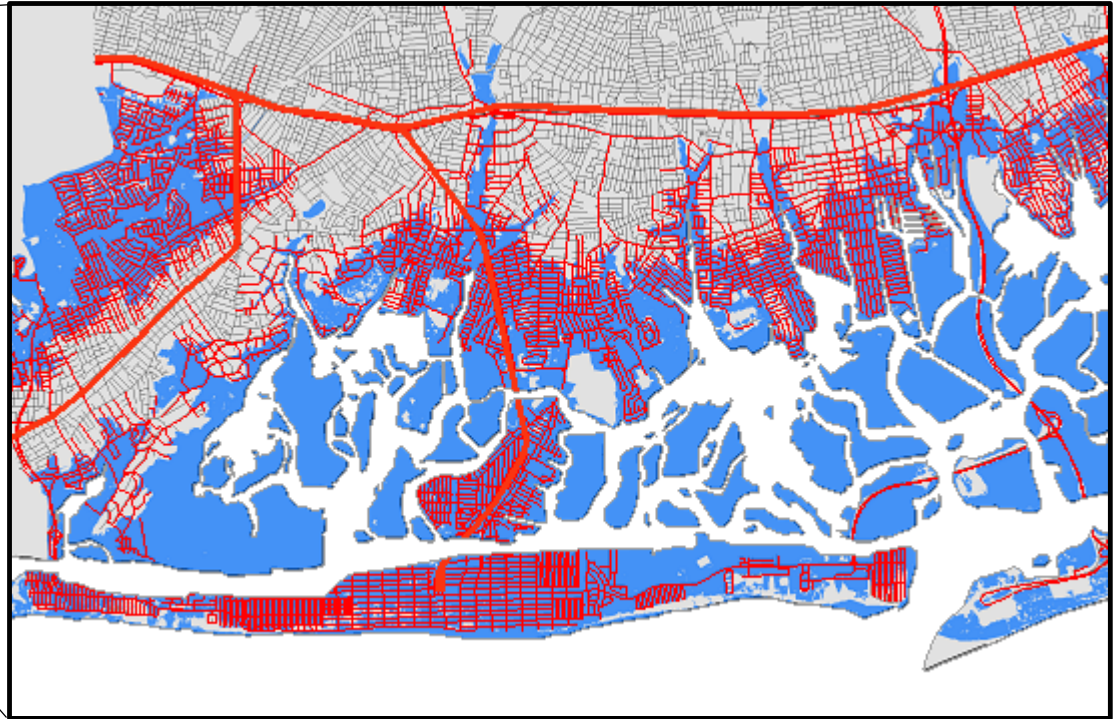


Rail lines flooded



Roads flooded

# Severe inundation of transportation infrastructure in southwest Nassau County



# Flooding associated with 100 yr- sea level rise



# FEMA 100-yr flood

