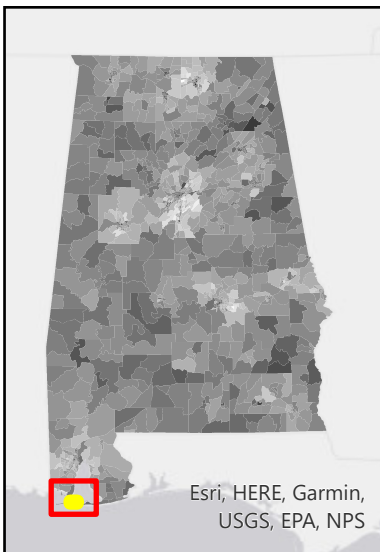
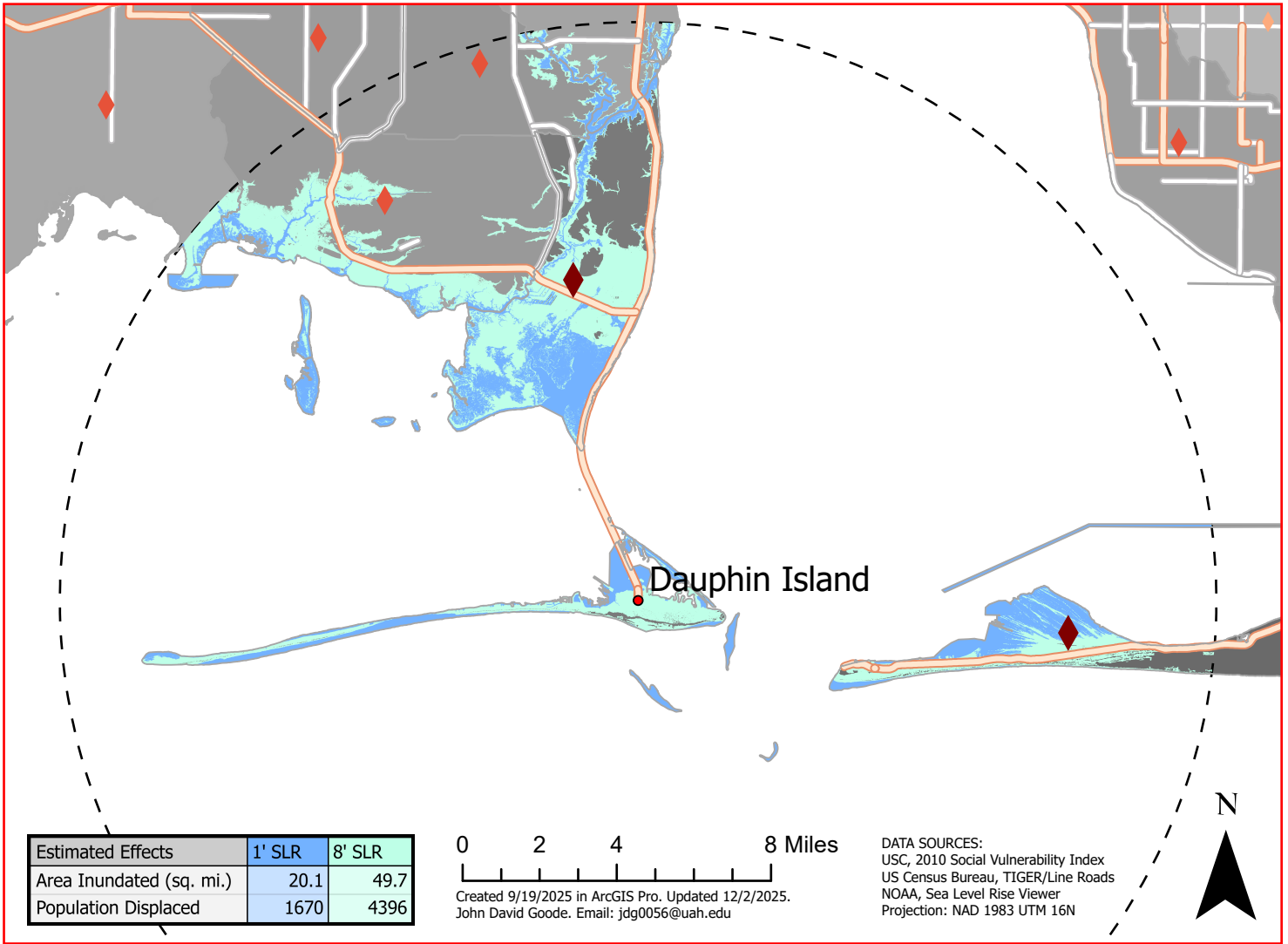


# Estimated Effects of Sea Level Rise on Dauphin Island



## Roads and Highways

- County Road
- Interstate
- US / AL Highway
- Other Roads

## Sea Level Rise (SLR)

- Inundated with 1' SLR
- Inundated with 8' SLR
- Study Area (15 mile radius)

## Social Vulnerability Index

- 8
- 11
- Low
- Medium
- High

The effects of potential Sea Level Rise (SLR) on Dauphin Island were estimated by uploading US Census tracts and NOAA's SLR estimates, clipping them to only include a 15-mile radius around Dauphin Island, Alabama, and calculating the areas inundated with 1' and 8' of SLR within this study region.

From this process, the total inundated areas calculated were around 20 square miles from one foot of SLR, then around 50 square miles from eight feet of SLR; it is interesting to note the inundation area does not increase linearly.

Using the percent of area inundated within each census tract as a proxy for population within its respective tract, the total population displacements were estimated to be 1670 and 4396 for 1' SLR and 8' SLR, respectively.

One possible future metric for a more insightful population displacement proxy could be the amount of road length inundated by SLR. This information would also be useful for strengthening infrastructure resilience.

