Choptank simulation domain and grid

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Modeling Quarterly Review
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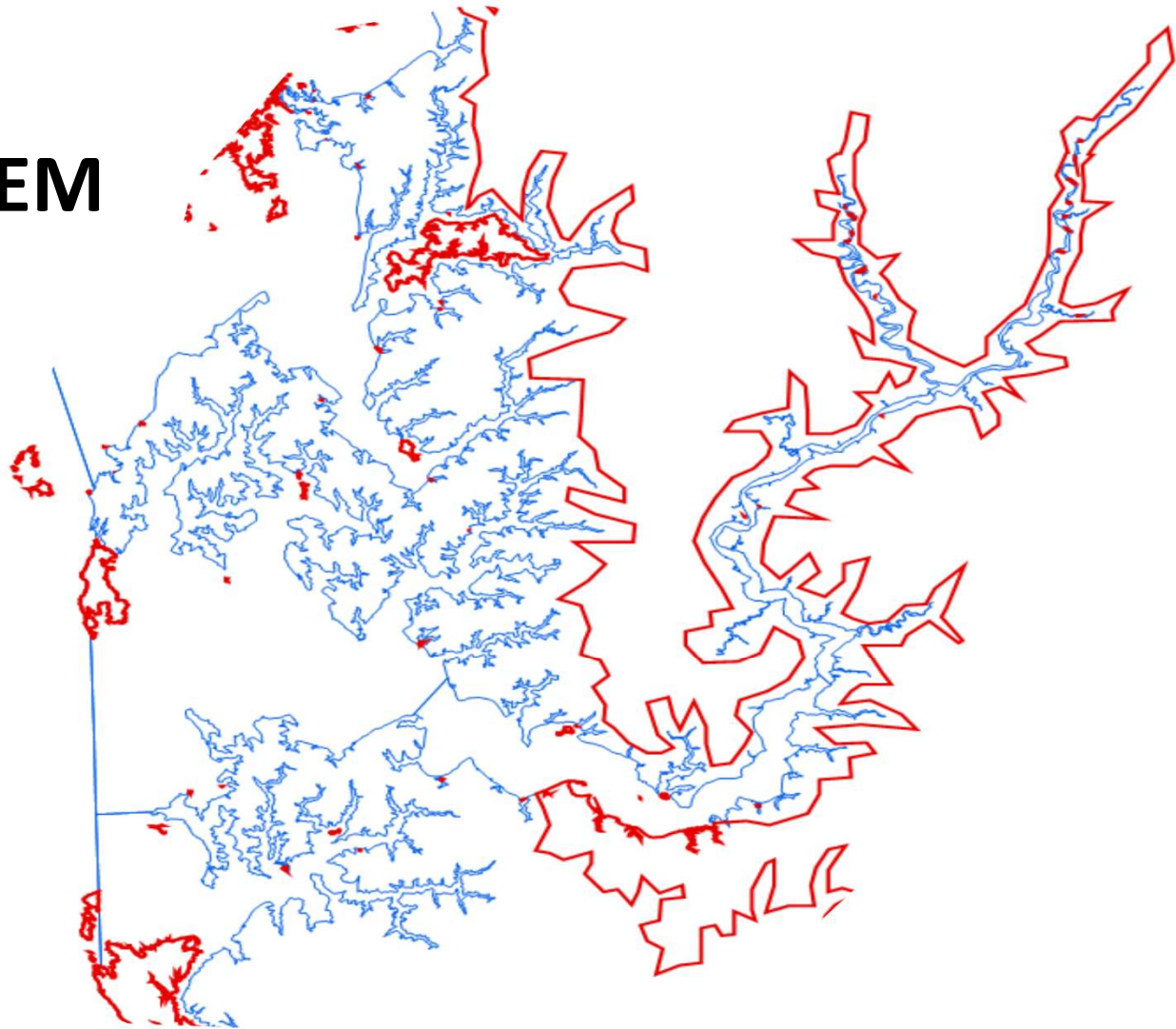Annapolis

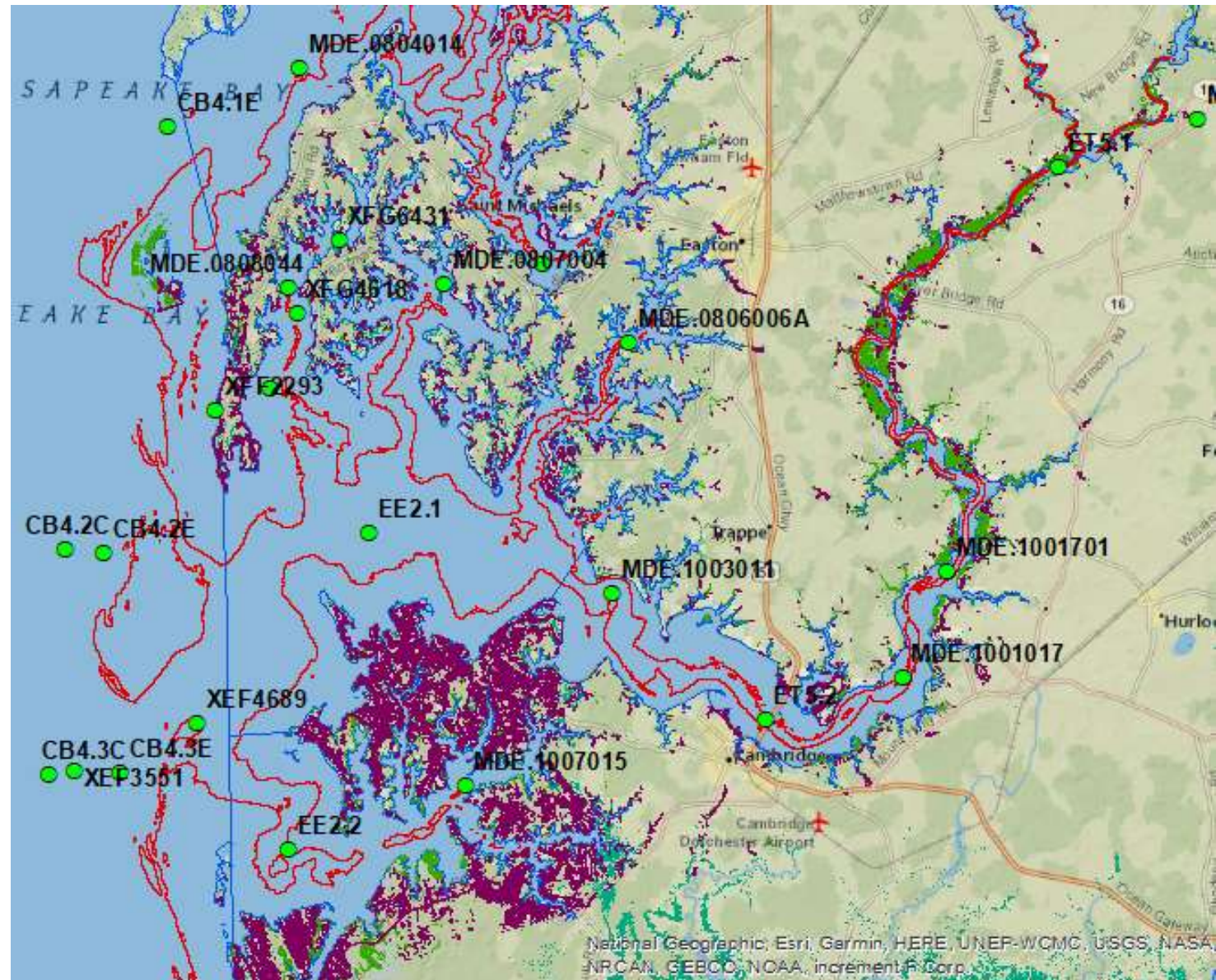# Choptank

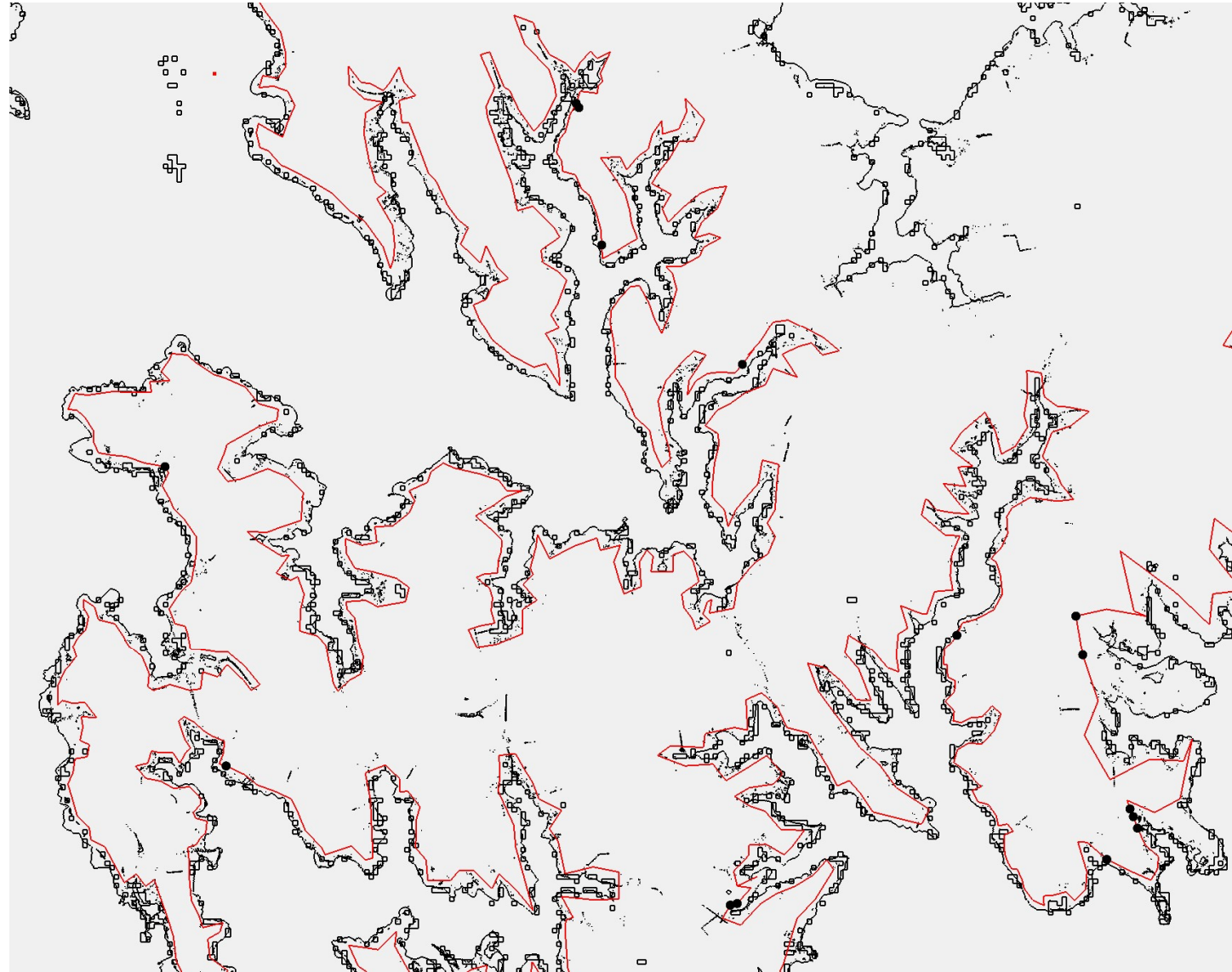**Blue: Coastline**
Red: 3 meters DEM

Information

- 5-m bathymetry
- Current coastline
- 1-m DEM
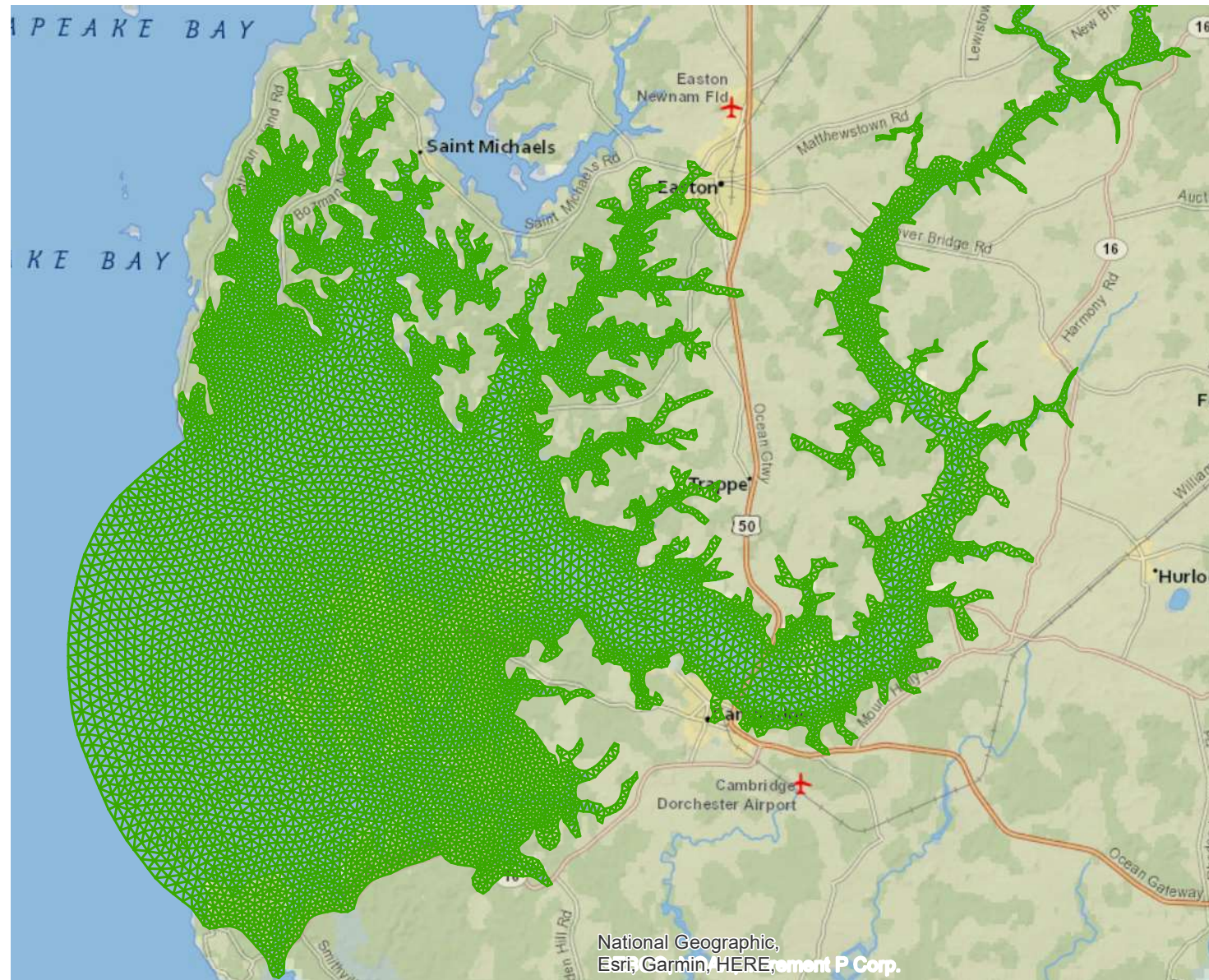- Current tidal wetland
- 50cm slr wetland
- Monitoring stations

Zoom at the lower estuary

- **Houses everywhere**
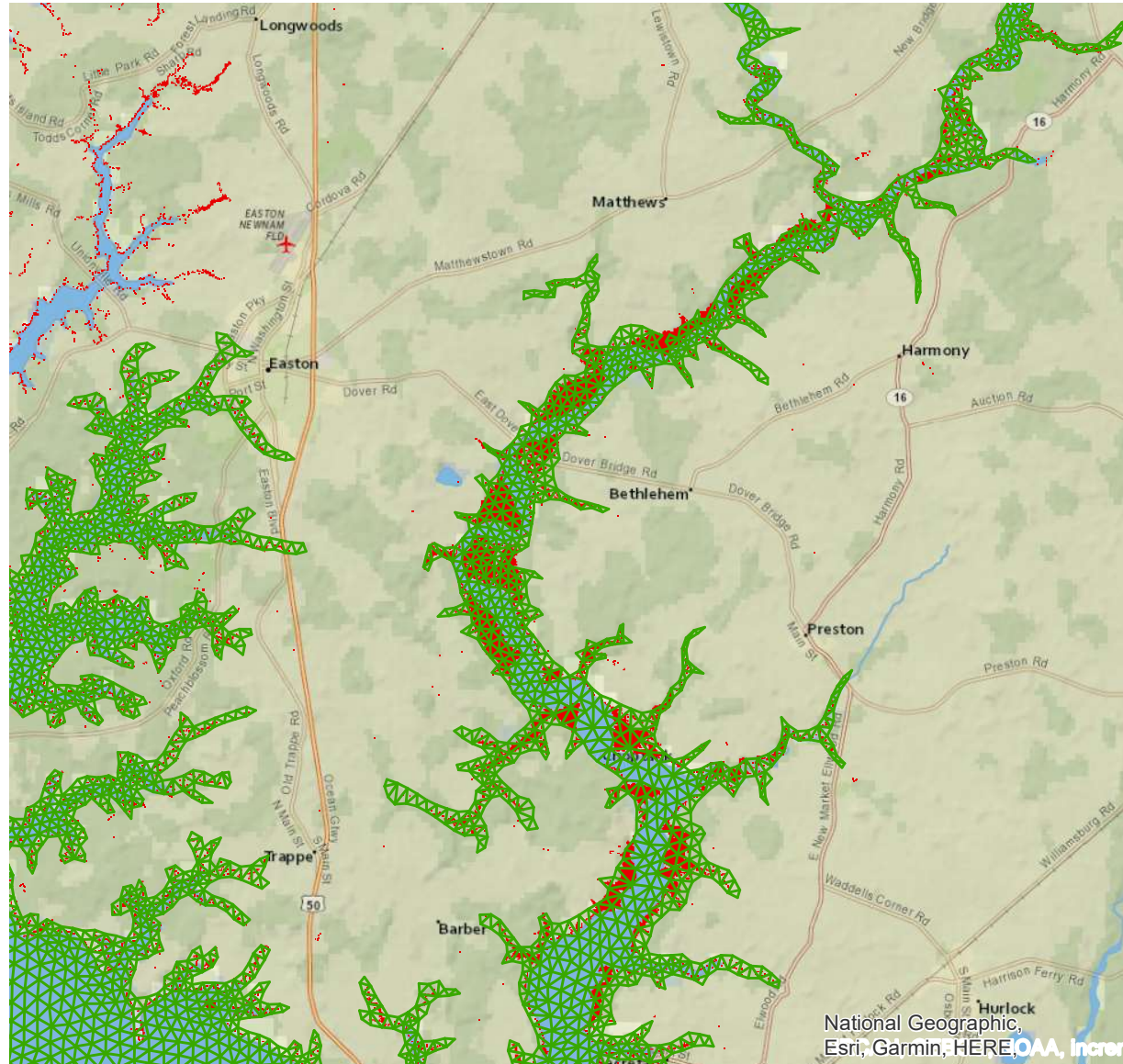- **Inside the simulation domain**
- **Shoreline hardening?**

Choptank simulation grid

- **100m upper estuary**
- **200m lower estuary**
- **300 open boundary?**
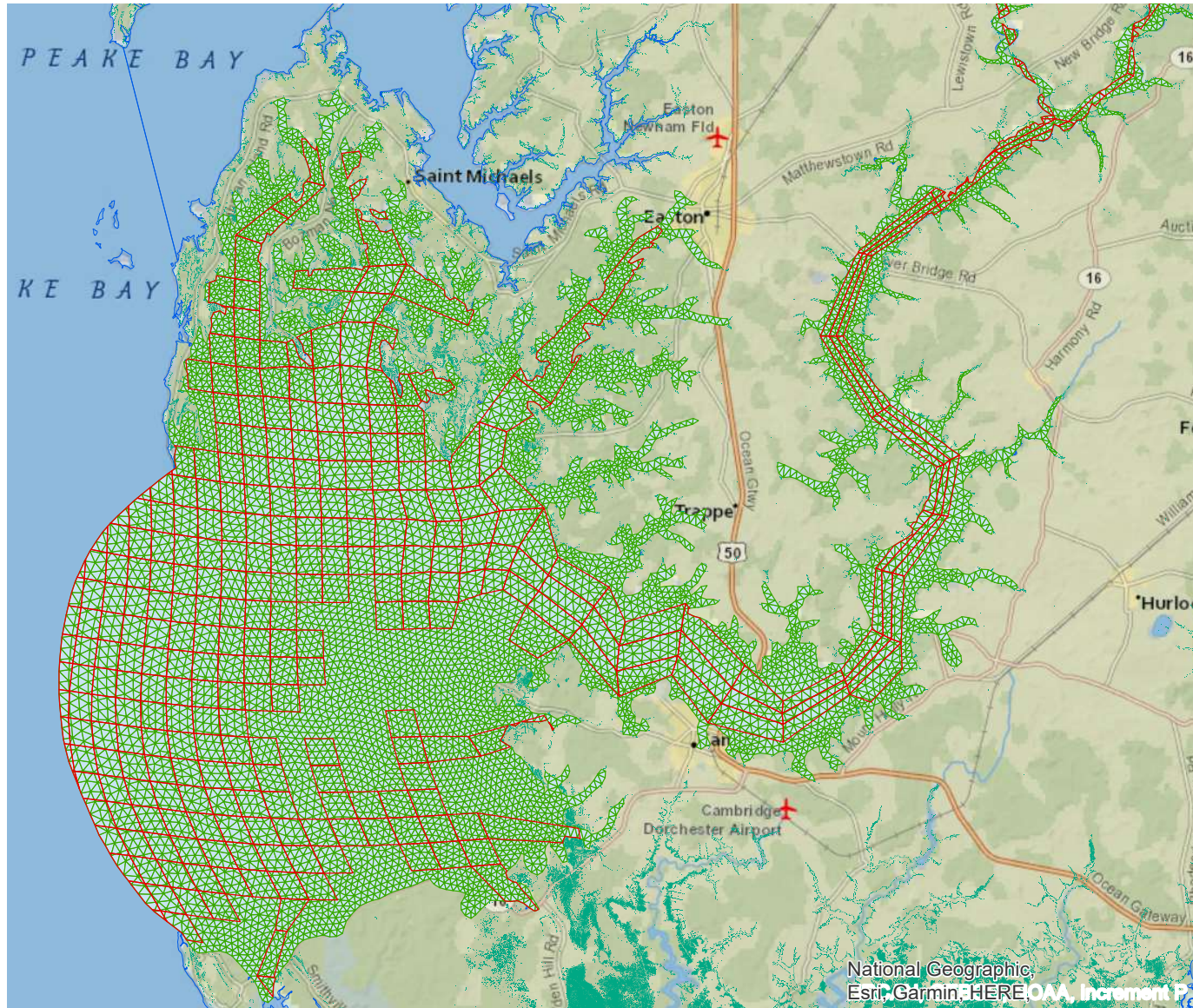- **15829 cells**
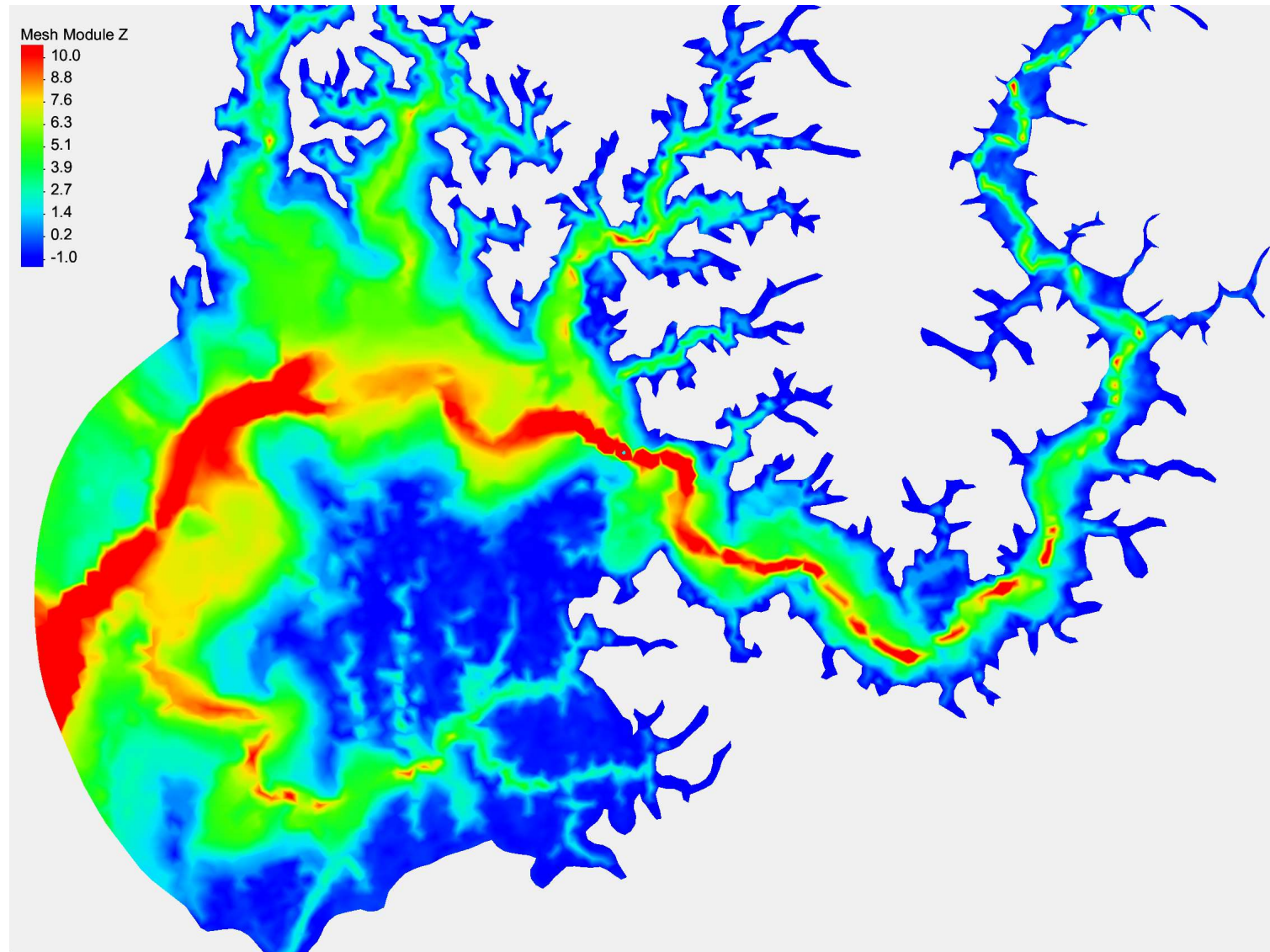- **9394 nodes**

Tidal wetland covered

Comparison with CH3D grid

9394 nodes
15829 cells
329 CH3D cell

Bathymetry

- USGS CoNED
- Nearest neighbor
- Up to 26 m

- Question:
What's the typical water depth for tidal wetland? (google said 50 cm).

Mesh Module Z
10.0
8.8
7.6
6.3
5.1
3.9
2.7
1.4
0.2
-1.0

Loading points

- **135 CH3D loading cells**