

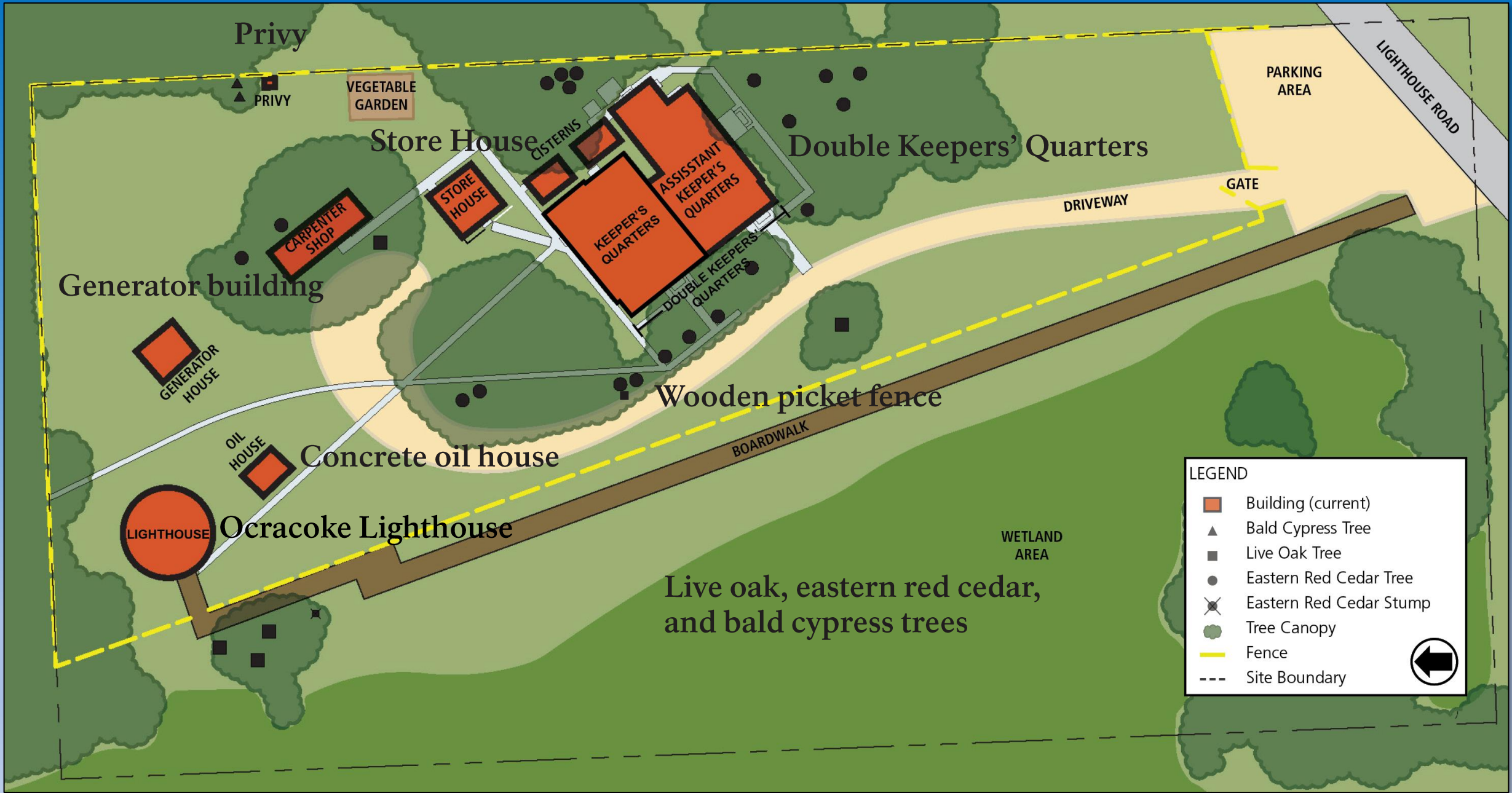
# Ocracoke Light Station Preservation Project

Cape Hatteras National Seashore  
Ocracoke Island, North Carolina  
May 6, 2021



- 1823 Oldest functioning lighthouse in North Carolina
- Second oldest lighthouse still in service in the U.S.
- **Project objective:** How to manage the complex of buildings and exterior of the lighthouse in the face of sea level rise and storms?





# Keeper's Quarters

- Originally a 5-room, 1 ½-story brick dwelling with an upper living level
- Numerous repairs beginning in 1855
- In 1929, expanded to create a double dwelling



**Keeper's Quarters, 1893**



**Double Keeper's Quarters, current**

# Then and Now



**Ocracoke Light Station 1893**

(Earliest known photographs of Ocracoke Light Station date to 1893)



**Ocracoke Light Station 2016**

# Management at sea level

- Hurricanes Mathew, Florence, and Dorian.
- Severely flooded from Hurricane Dorian in 2019







# Period of Interpretation (1823-1846)

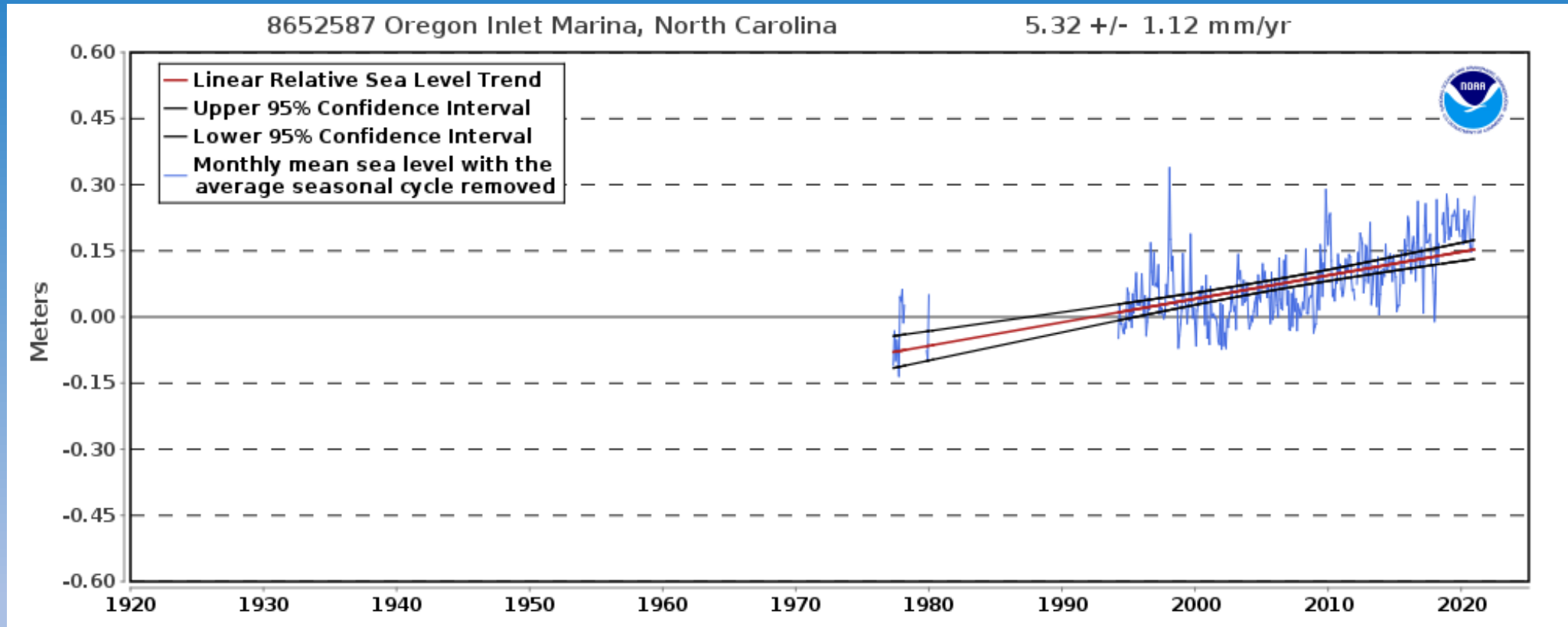




Test removal of  
shotcrete

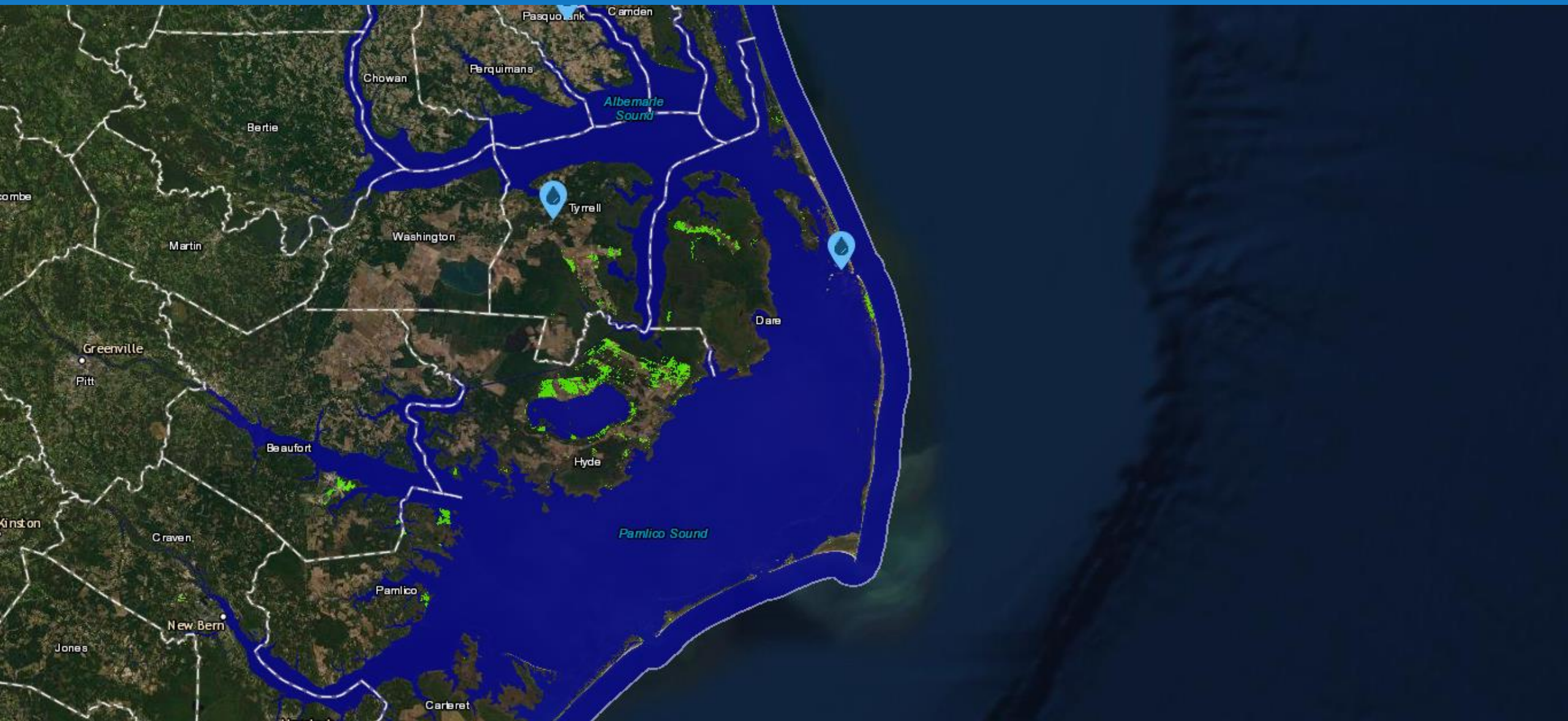
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# Current rate of sea level rise = 5.32 +/- mm/yr



“The relative sea level trend is 5.32 millimeters/year with a 95% confidence interval of +/- 1.12 mm/yr based on monthly mean sea level data from 1977 to 2020 which is equivalent to a change of 1.75 feet in 100 years. ”

Graphic and text from NOAA found here: [https://tidesandcurrents.noaa.gov/sltrends/sltrends\\_station.shtml?id=8652587](https://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?id=8652587)



**Data from:** NOAA Sea Level Riser Viewer – available at: <https://coast.noaa.gov/slr/#/layer/slr>

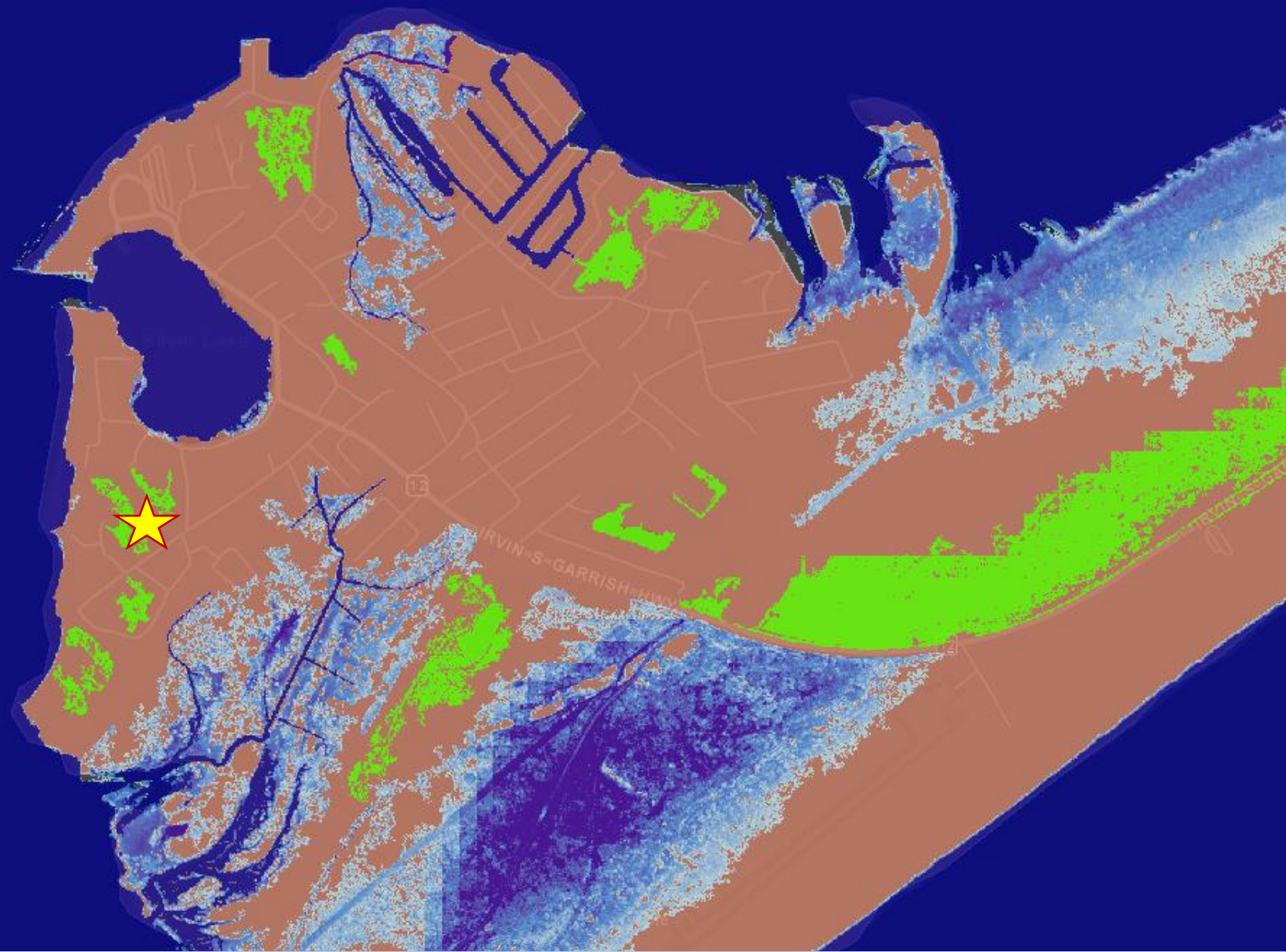


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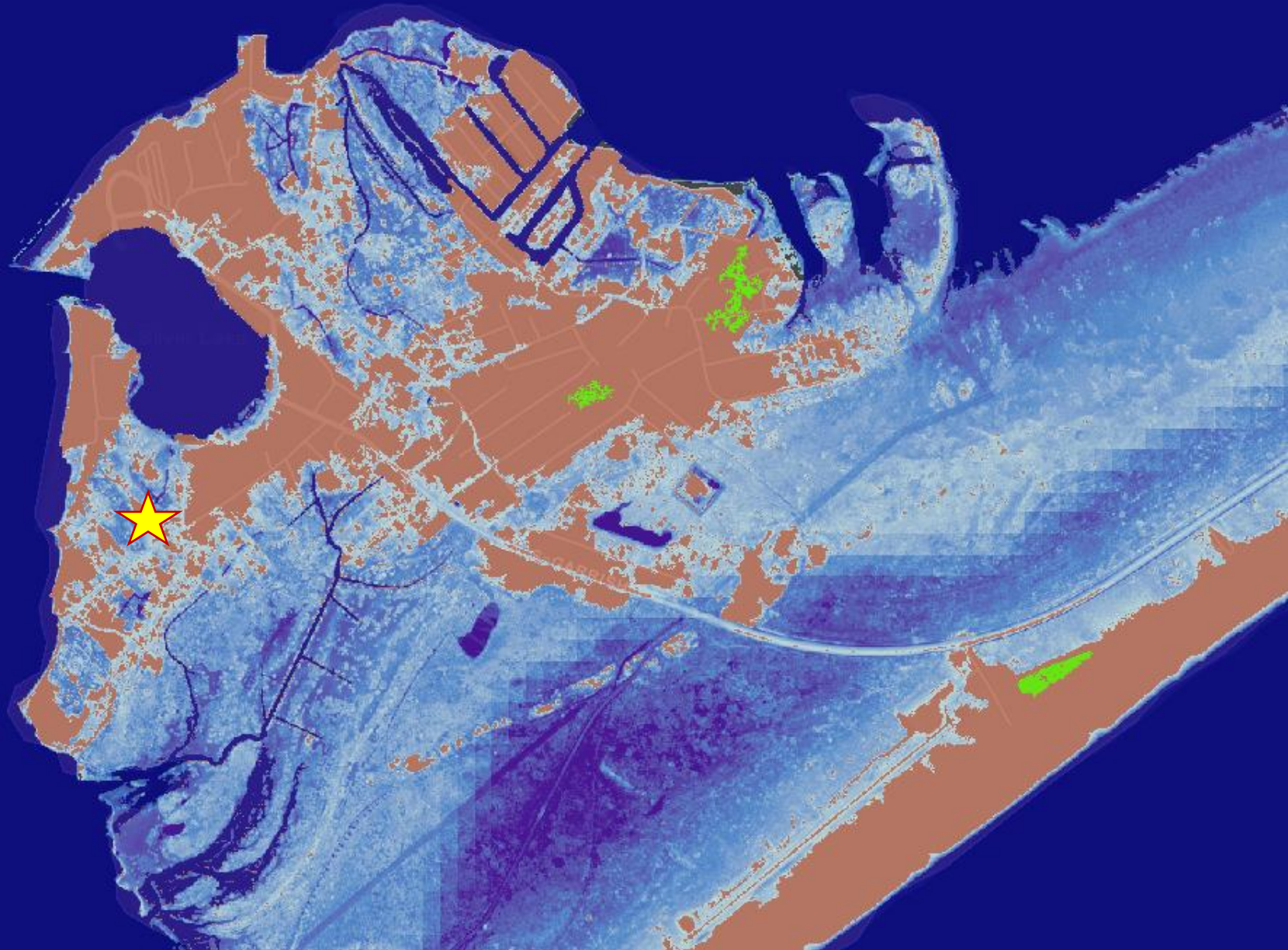
**Data from:** NOAA Sea Level Riser Viewer – available at: <https://coast.noaa.gov/slr/#/layer/slr>

1 FT.



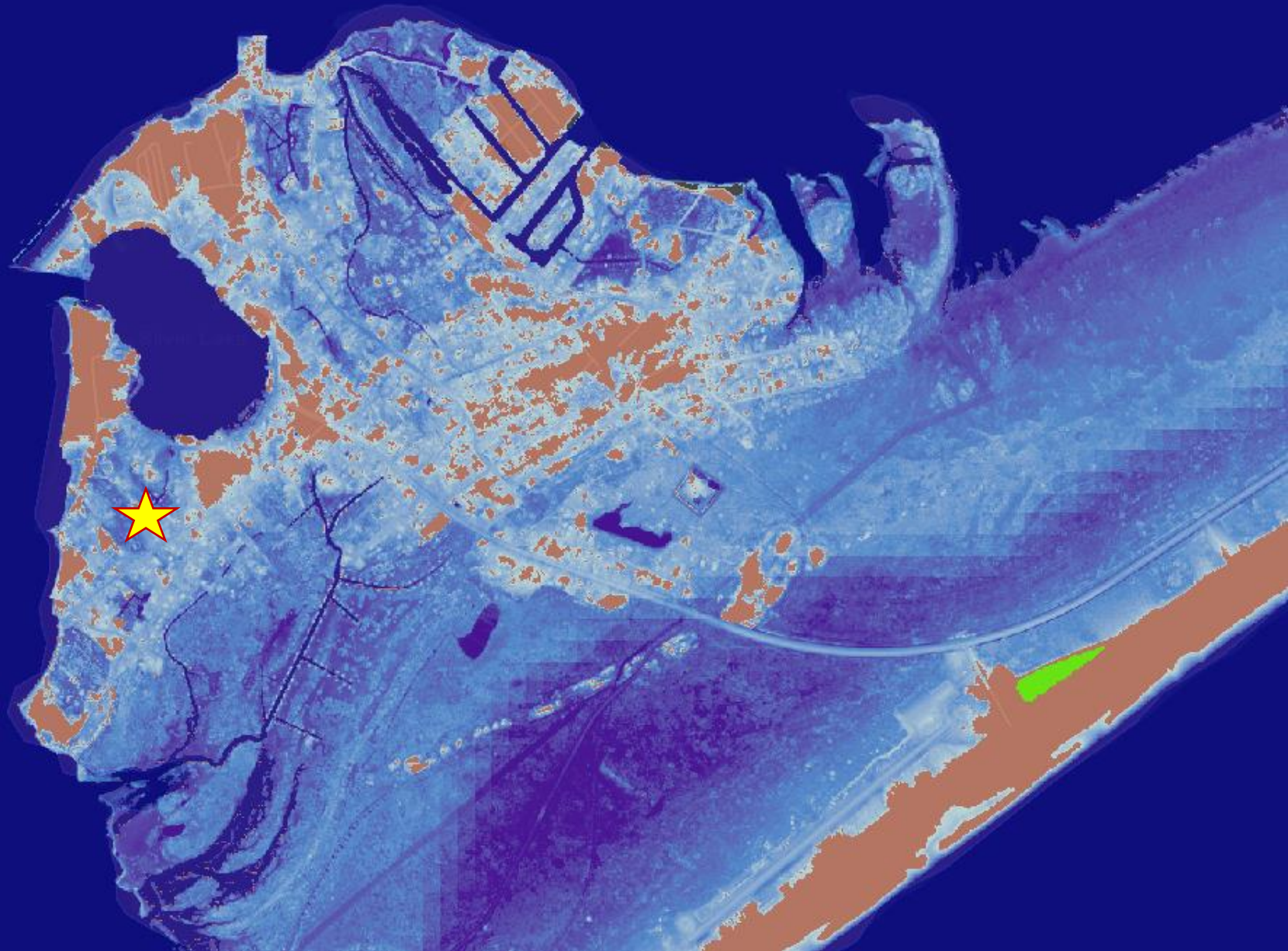
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2 FT.

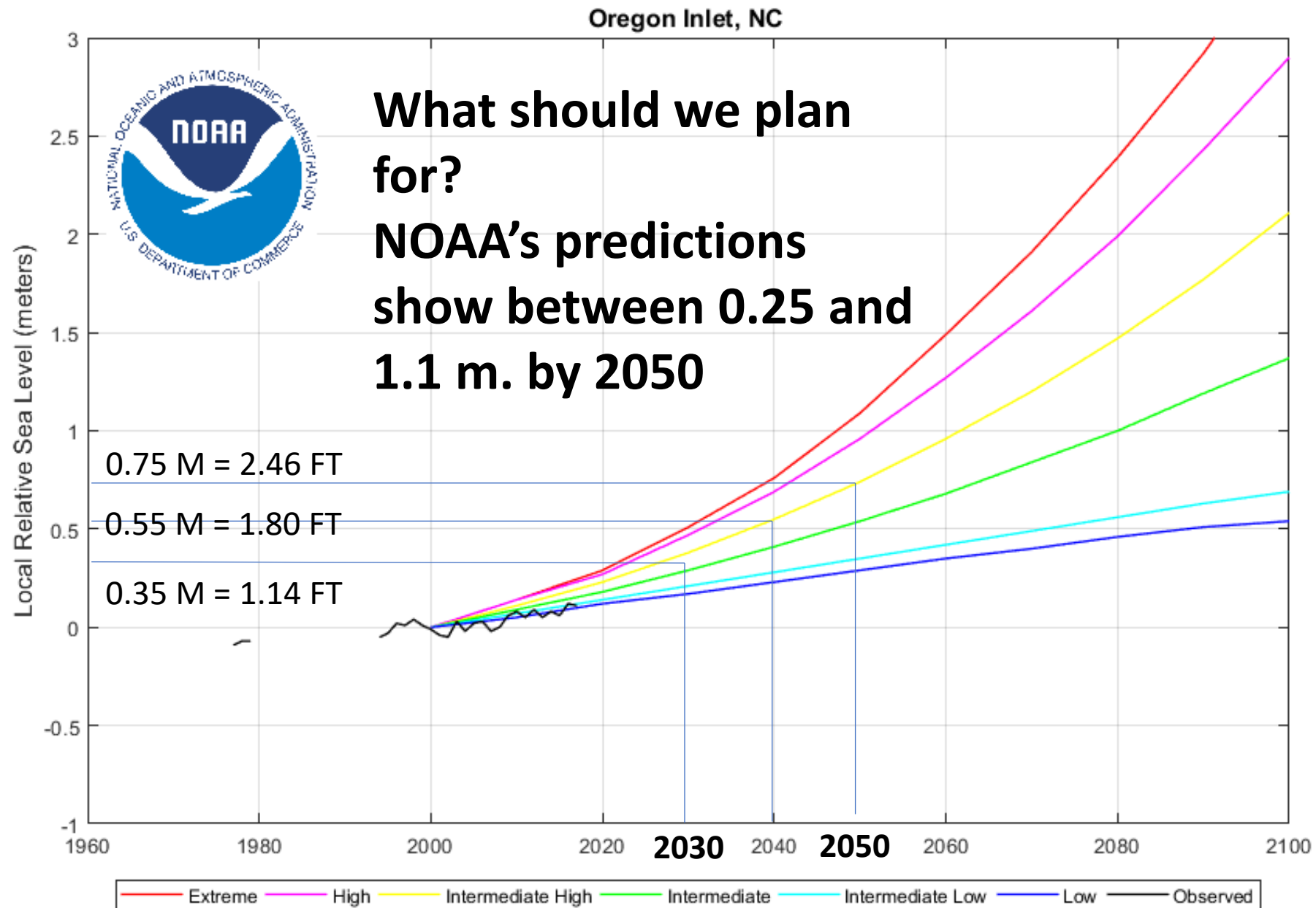


**Data from:** NOAA Sea Level Riser Viewer – available at: <https://coast.noaa.gov/slr/#/layer/slr>

3 FT.



**Data from:** NOAA Sea Level Riser Viewer – available at: <https://coast.noaa.gov/slr/#/layer/slr>



Data from: [https://tidesandcurrents.noaa.gov/sltrends/sltrends\\_station.shtml?id=8652587#tab50yr](https://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?id=8652587#tab50yr)



## Next Steps

- Collect feedback
- Initiate NEPA and Section 106 (NHPA)
- Prepare a plan
- Obtain funding
- Implement



How should we preserve this important light station?

- Repair as is
- Elevate and repair
- Elevate, restore to original keeper's quarters
- Relocate

Submit comments electronically at:  
<https://parkplanning.nps.gov/CAHA>

Comments should be clear, concise,  
and relevant to the issues  
associated with management of the  
Ocracoke Light Station.

Commenting is not a form of  
“voting.”

Comments must be received by **May  
28, 2021.**

