

Ocracoke Light Station Preservation Project

Cape Hatteras National Seashore
Ocracoke Island, North Carolina
May 10, 2021



Orientation to Microsoft Teams

00:44

Planning Tech Meeting

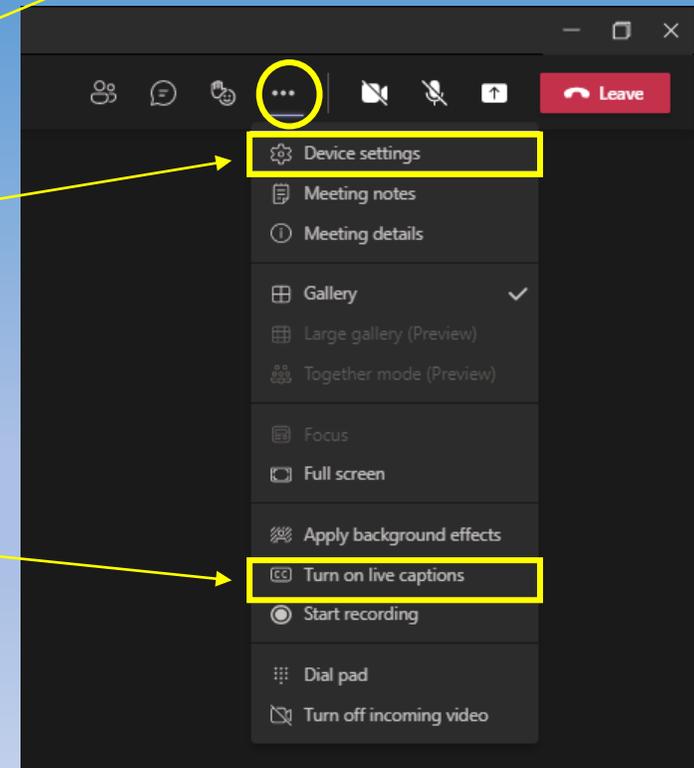
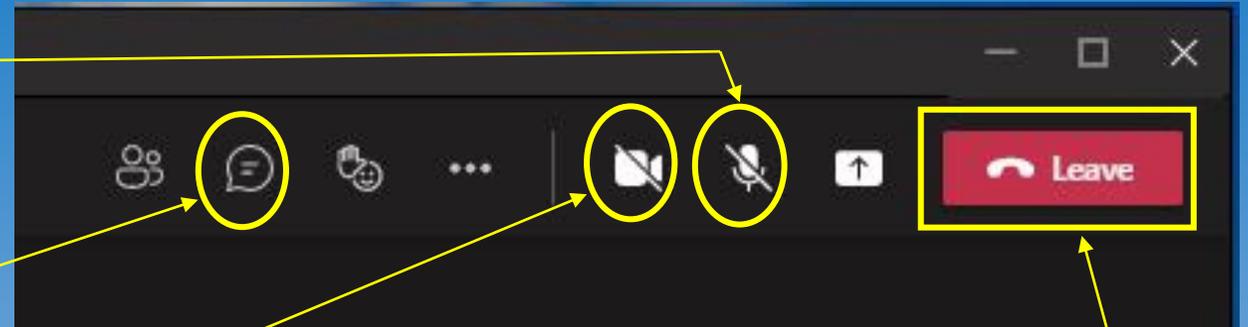
Key Controls

Waiting for others to join...

The screenshot shows a Microsoft Teams meeting window. At the top, the title bar reads "Planning Tech Meeting" with standard window controls. Below the title bar, a dark toolbar contains several icons: a group of people (participants), a speech bubble (chat), a hand with a screen (screen sharing), a vertical ellipsis (more options), a camera with a slash (video off), a microphone with a slash (audio off), a document with a play button (share content), and a red button with a white arrow pointing left labeled "Leave". A yellow arrow originates from the text "Key Controls" and points to this toolbar. The main area of the window is dark and displays a circular video placeholder with a person's image and the text "Waiting for others to join..." below it.

Orientation to Microsoft Teams

- Please mute your microphones on computers and phones
- Please wait to submit your comments or questions until after the presentation
- Please turn off video cameras to improve your connection and bandwidth
- Volume
- Captions

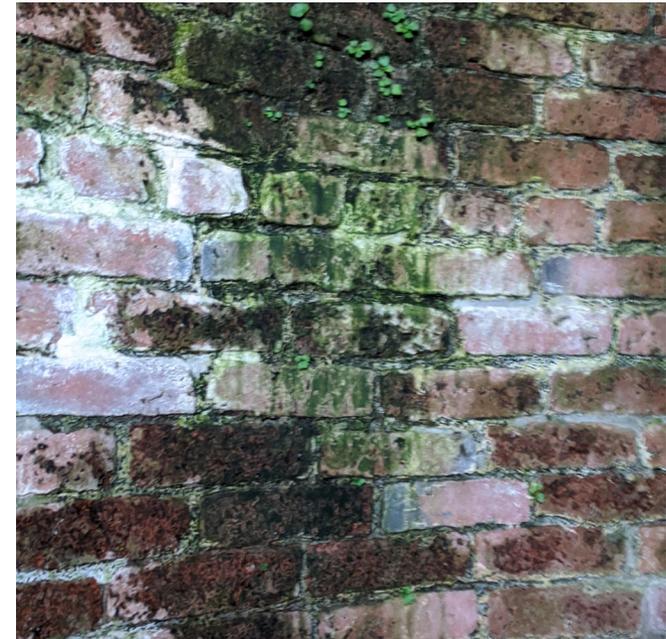


Leave meeting

NPS Staff

- **David Hallac**- Superintendent, Cape Hatteras NS
- **Mark Dowdle**- Deputy Superintendent, Cape Hatteras NS
- **Sabrina Henry**- Environmental Protection Specialist, Cape Hatteras NS
- **Meaghan Johnson**- Deputy Chief of Resource Management and Science, Cape Hatteras NS
- **Jami Lanier**- Cultural Resources Manager/Historian, Cape Hatteras NS
- **Amy Thompson**- Ocracoke Supervisory Biological Technician, Cape Hatteras NS
- **Scott Babinowich**- Chief of Interpretation, Education and Visitor Services, Cape Hatteras NS
- **John Kowlok**- Chief of Facility Maintenance, Cape Hatteras NS
- **Todd Fappiano**- Operations Supervisor, Cape Hatteras NS
- **Nelson Pendleton**- Engineer, Cape Hatteras NS
- **Ed Fuller**- Ocracoke District Ranger, Cape Hatteras NS
- **Jami Hammond**- Regional Environmental Coordinator, South Atlantic Gulf Region
- **Darrell Stone**- Contracting Officer Representative, Storm Team South Atlantic Gulf Region
- **Pam Baughman** – Section 106 Coordinator, Storm Team South Atlantic Gulf Region
- **Anne Finney**-Historian, Storm Team South Atlantic Gulf Region
- **Stephen Lacey**- Archeologist, Storm Team South Atlantic Gulf Region
- **Byron Tsang**- Wetland Ecologist, Storm Team South Atlantic Gulf Region
- **Linda York**-Coastal Geologist, Storm Team South Atlantic Gulf Region
- **Whitney Howeth**- Wildlife Specialist, Storm Team South Atlantic Gulf Region
- **Paul Alimia**- NEPA Specialist, Storm Team South Atlantic Gulf Region

- 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?





Privy

PRIVY

VEGETABLE GARDEN

Store House

CISTERNS

Double Keepers' Quarters

PARKING AREA

LIGHTHOUSE ROAD

GATE

DRIVEWAY

CARPENTER SHOP

STORE HOUSE

KEEPER'S QUARTERS

ASSISTANT KEEPER'S QUARTERS

DOUBLE KEEPERS QUARTERS

Generator building

GENERATOR HOUSE

Wooden picket fence

OIL HOUSE

Concrete oil house

BOARDWALK

LIGHTHOUSE

Ocracoke Lighthouse

WETLAND AREA

Live oak, eastern red cedar, and bald cypress trees

LEGEND

- Building (current)
- Bald Cypress Tree
- Live Oak Tree
- Eastern Red Cedar Tree
- Eastern Red Cedar Stump
- Tree Canopy
- Fence
- Site Boundary



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

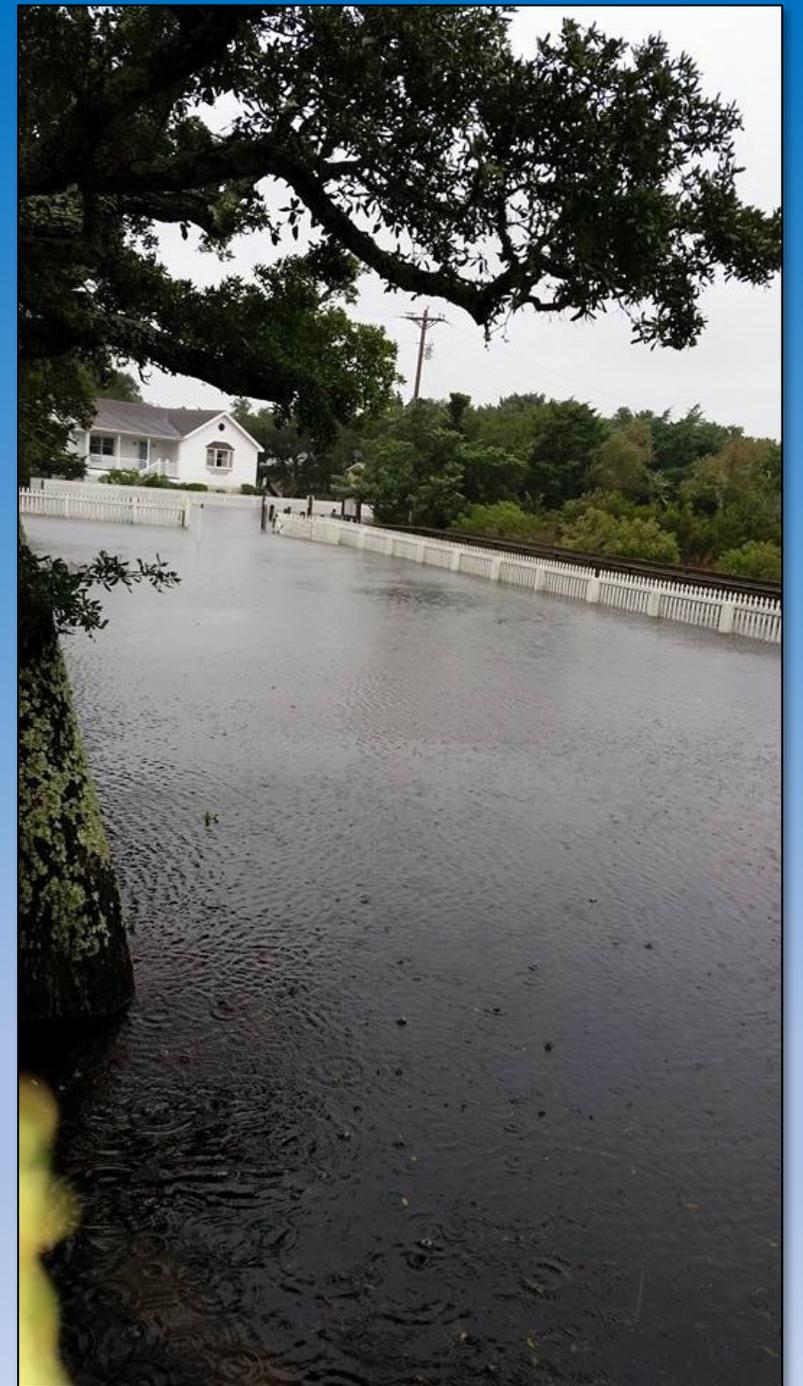
(Earliest known photographs of Ocracoke Light Station date to 1893)

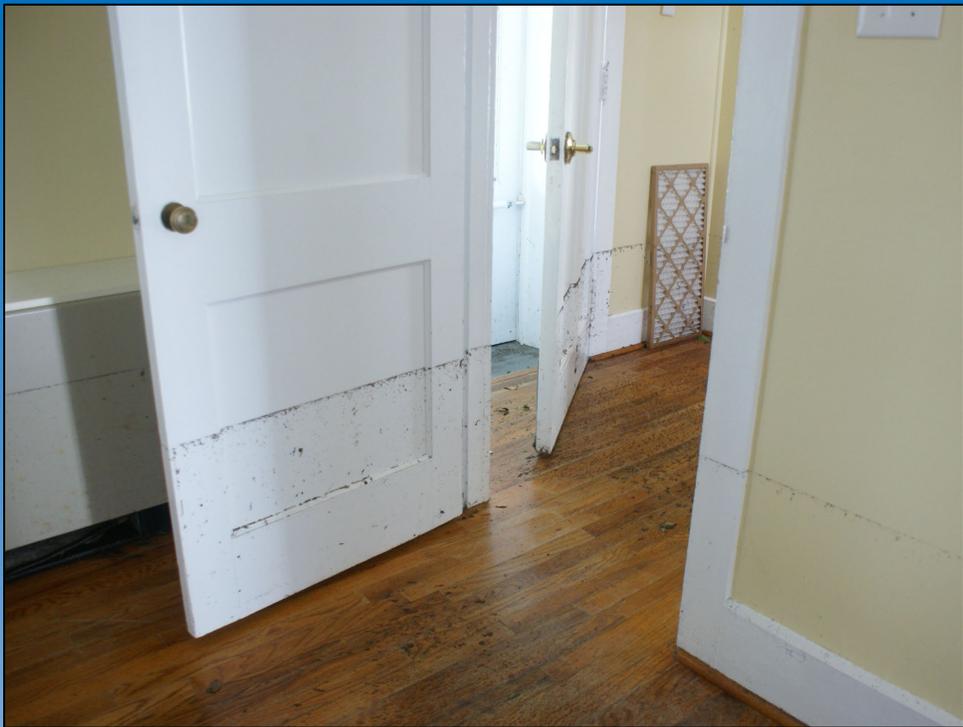


Ocracoke Light Station 2016

Management at sea level

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







Period of Interpretation (1823-1846)

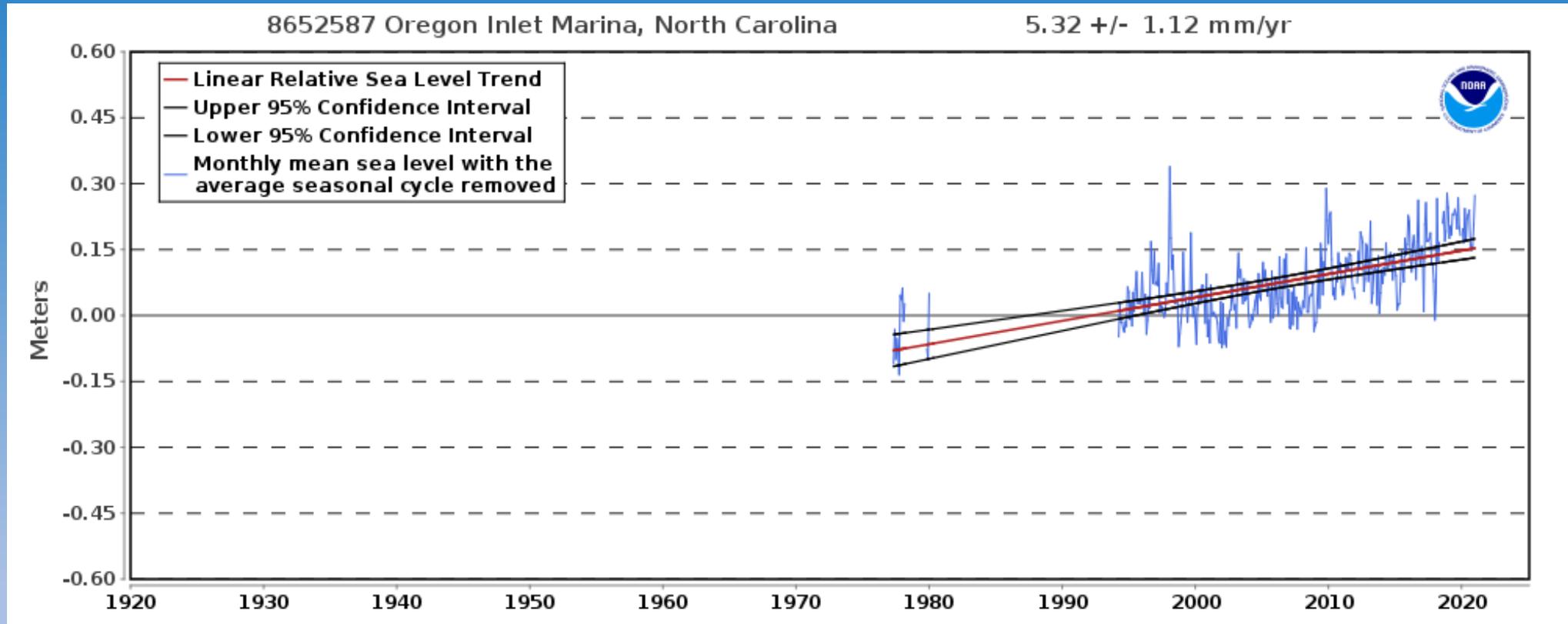




Test removal of
shotcrete

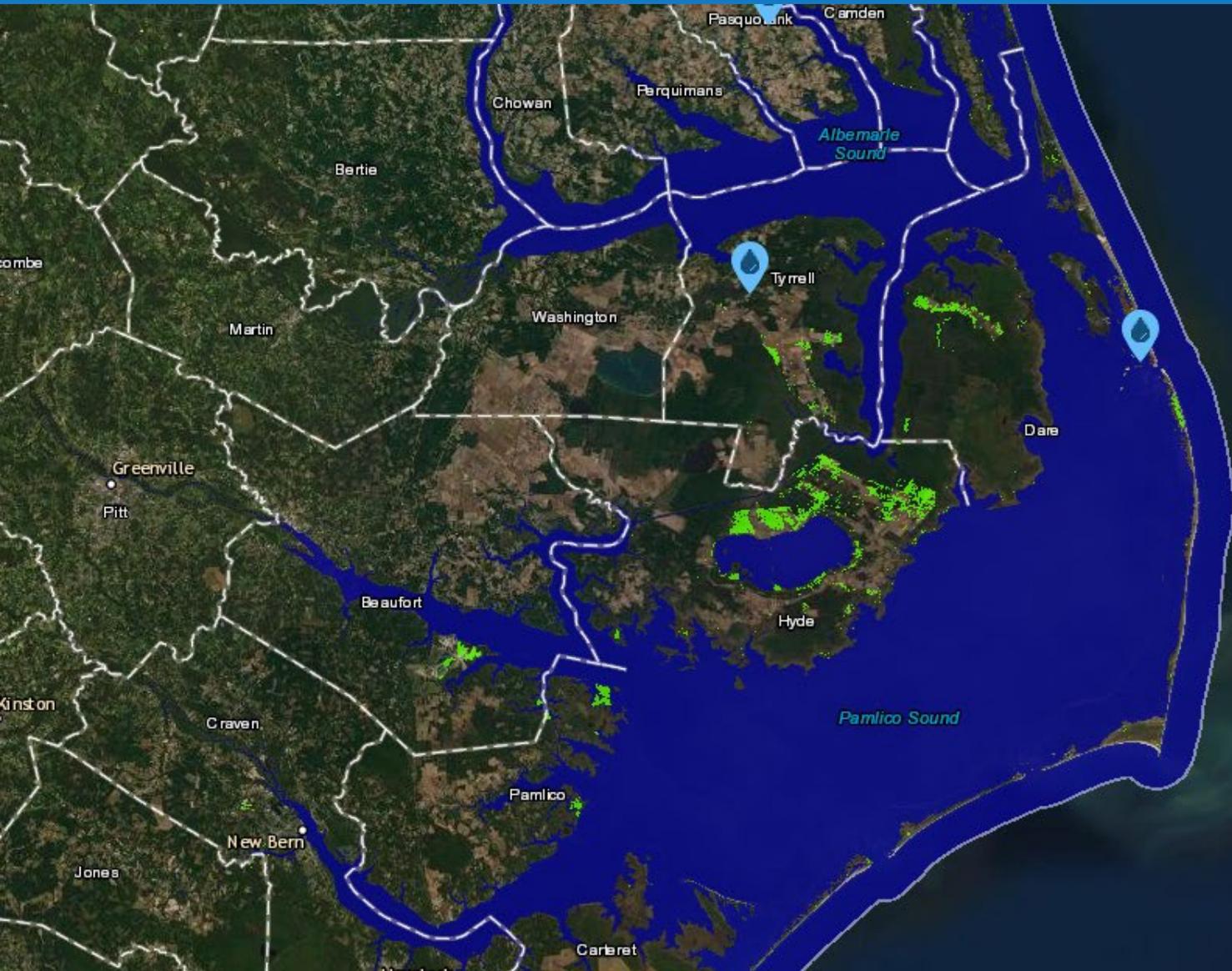
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Current rate of sea level rise = 5.32 +/- mm/yr



“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



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



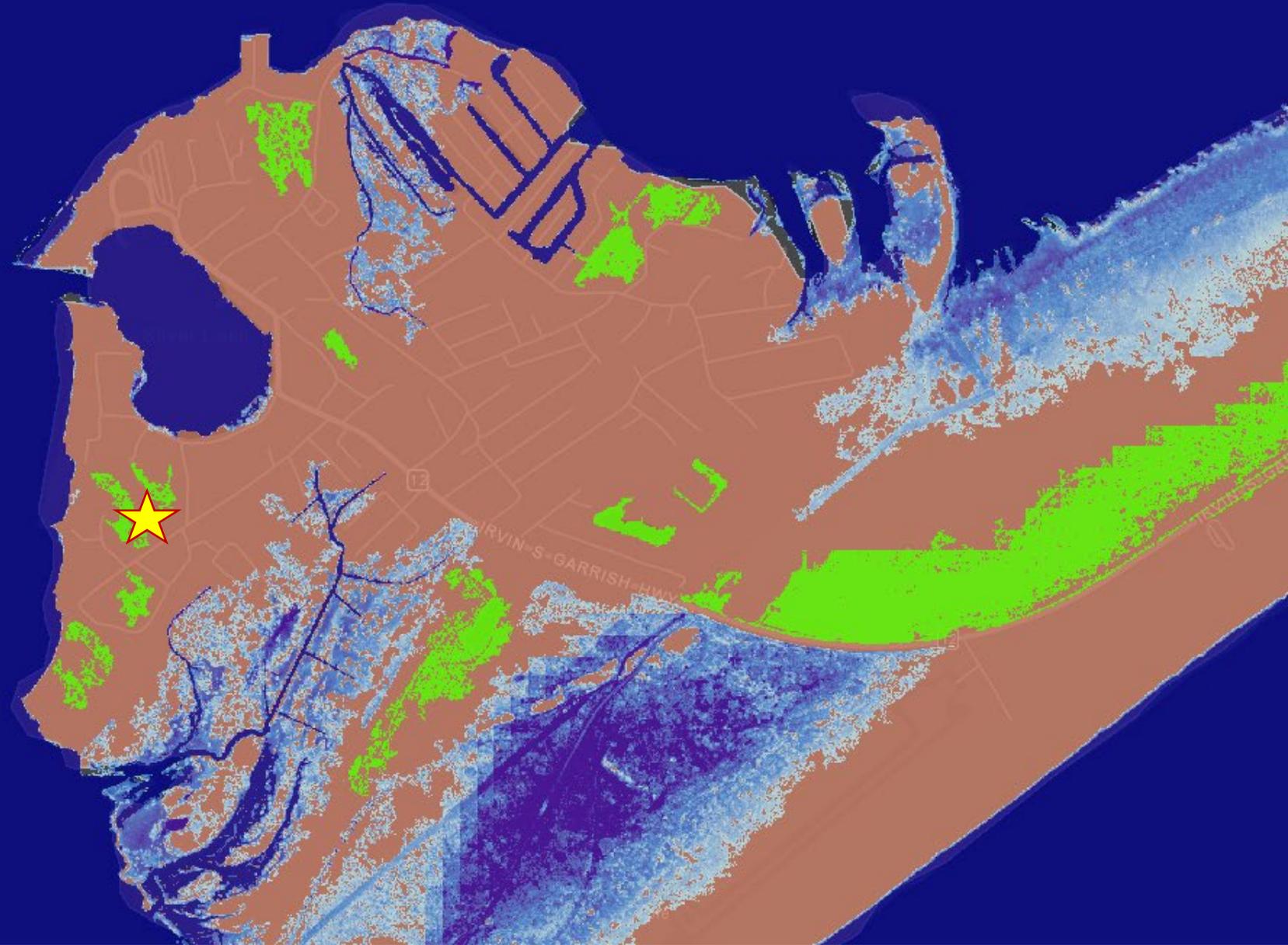
Data from: NOAA Sea Level Riser Viewer – available at: <https://coast.noaa.gov/slr/#/layer/slr>

CURRENT



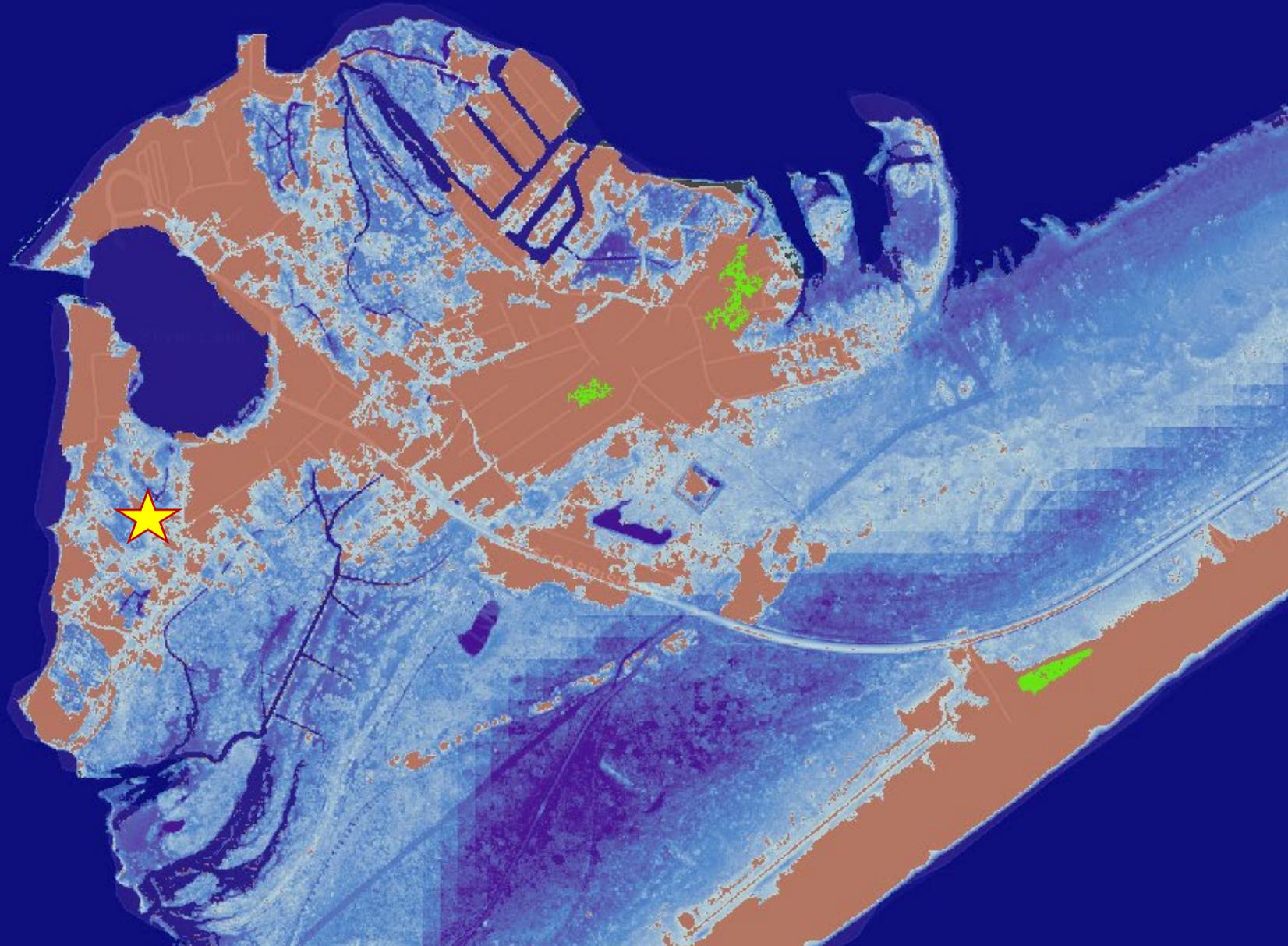
Data from: NOAA Sea Level Riser Viewer – available at: <https://coast.noaa.gov/slr/#/layer/slr>

1 FT.



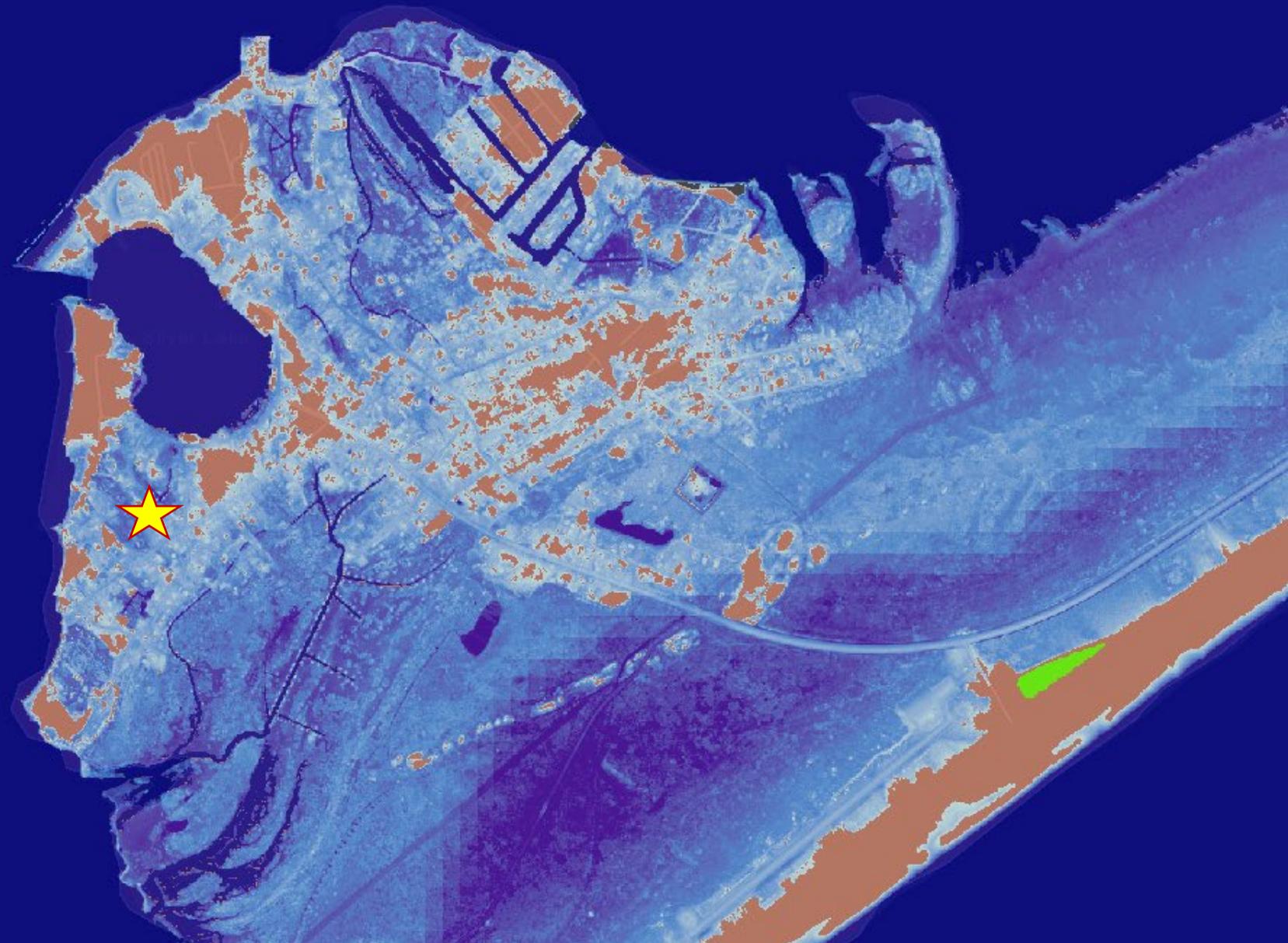
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2 FT.



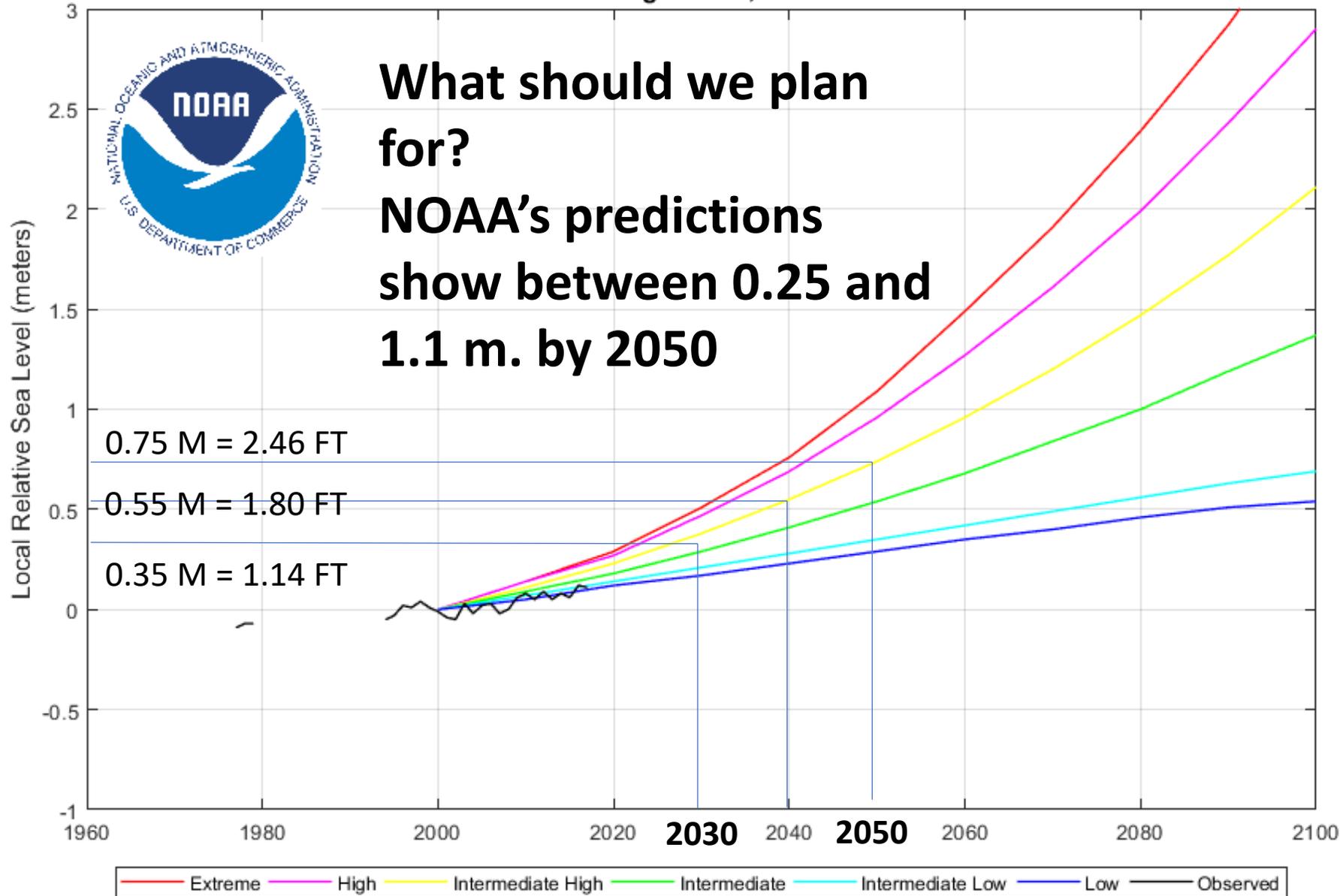
Data from: NOAA Sea Level Riser Viewer – available at: <https://coast.noaa.gov/slr/#/layer/slr>

3 FT.



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

Oregon Inlet, NC



Data from: 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

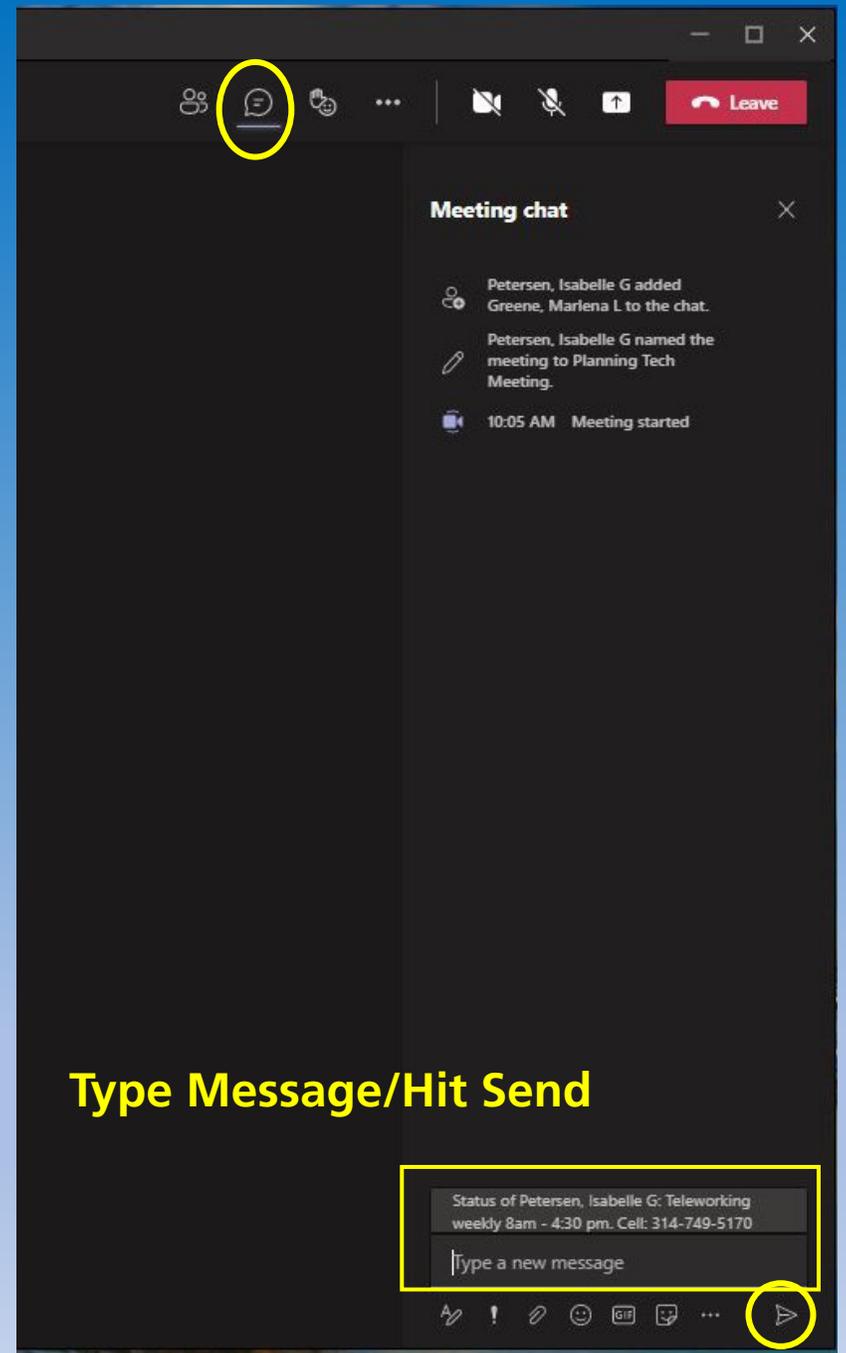
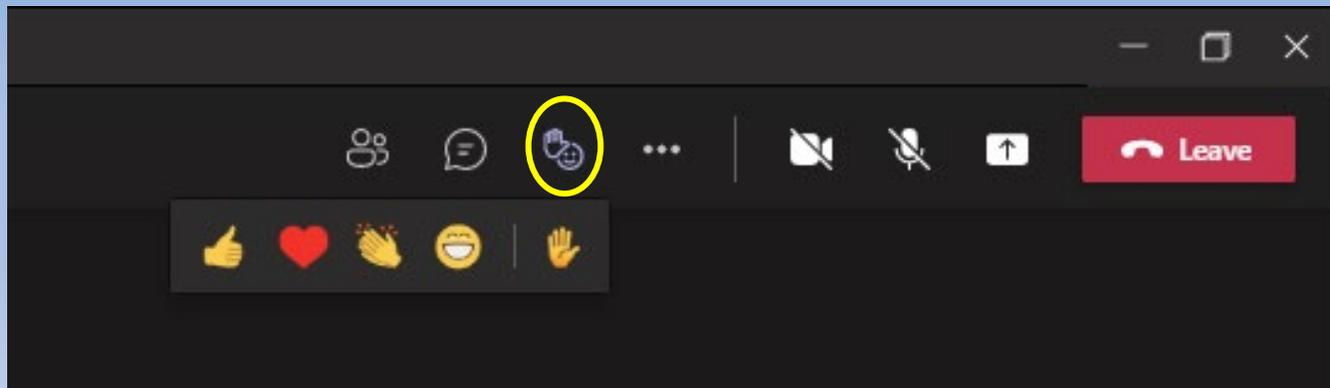


How should we preserve this important light station?

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

We're Listening

- Please use the "Raise Your Hand" function to help us manage the conversation and to make a verbal comment
- Turn on video cameras if you want.
- Please use the "Chat" function to share something for consideration
- Called in using phone #? -Use*6 to unmute phone



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**.

