



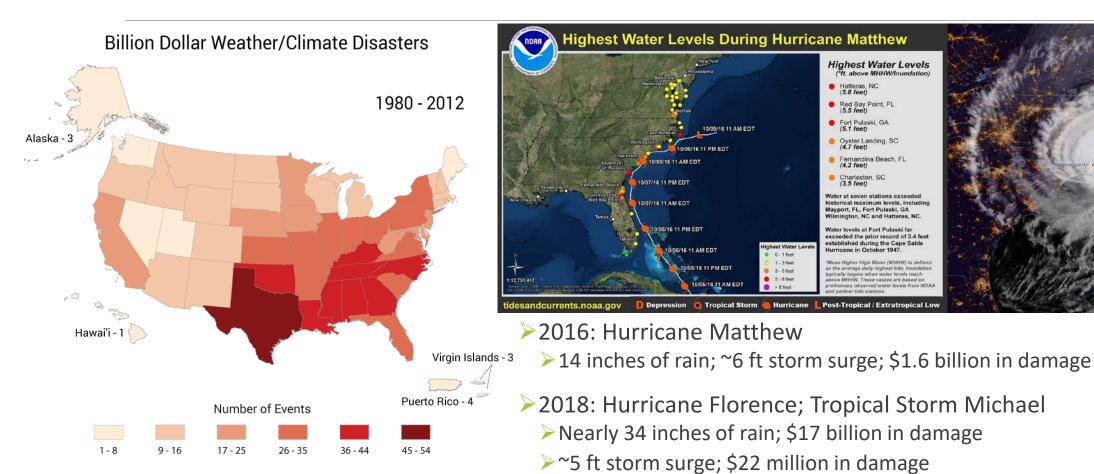
# Working Towards A Future Where Nature & People Thrive

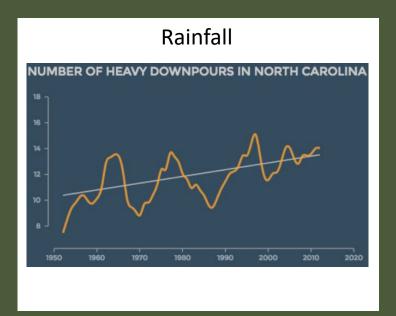
ΔPRII 2019

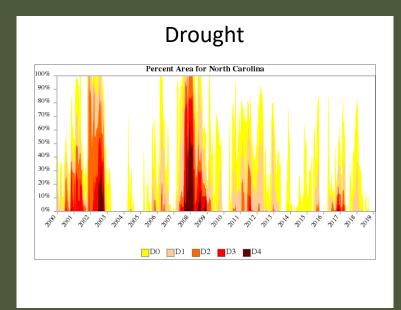
BRIAN BOUTIN, PH.D.

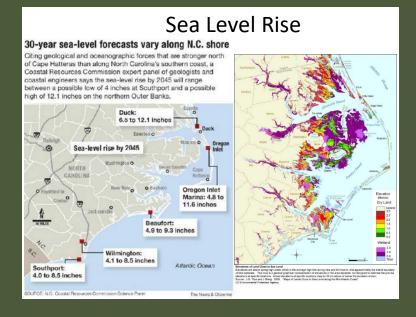
THE NATURE CONSERVANCY

### Extreme Weather















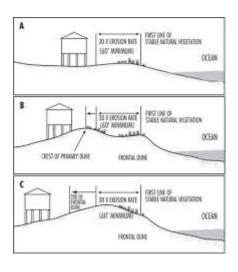
### Coastal Resilience



Absorb

Adapt





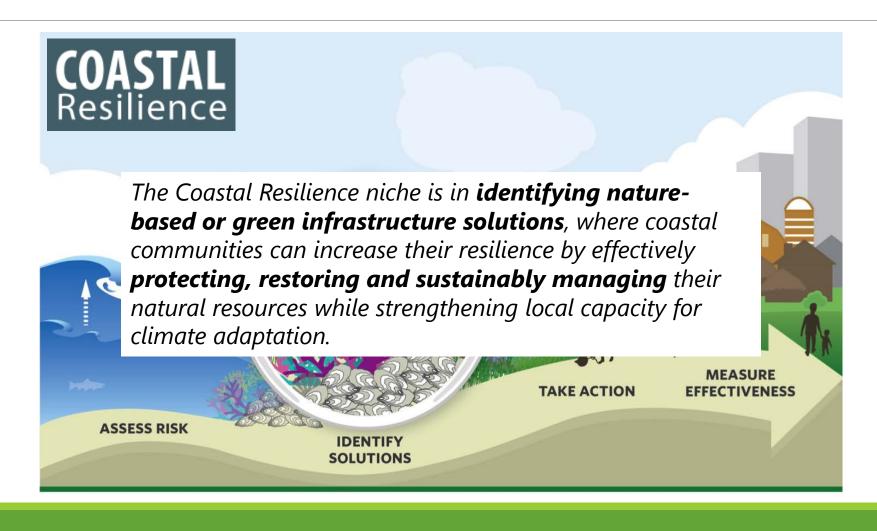
Avoid

Resilience

Accommodate



#### Natural Resilience Solutions



### Natural Resilience Solutions



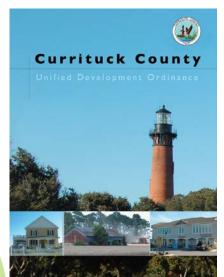


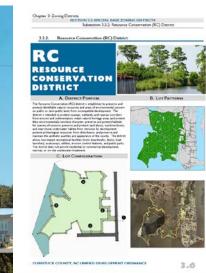
**Policy** 



Planning & Technical Assistance

Funding





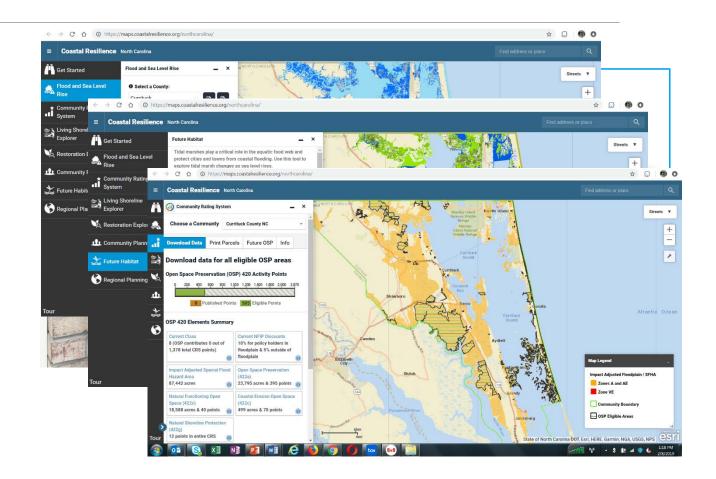


METHODOLOGY FOR THE QUANTIFICATION, MONITORING, REPORTING AND VERIFICATION OF GREENHOUSE GAS EMISSIONS REDUCTIONS AND REMOVALS FROM RESTORATION OF POCOSIN WETLANDS



# Currituck County

- ➤ Imagine Currituck Land Use Plan
  - ➤ Values: Natural Places, Hunting & Fishing
  - Concerns: Flooding, Water Quality
- Goal: identify areas at risk to flooding and develop community-supported strategies to mitigate risk
- Flood and Sea Level Rise
- > Future Habitat
- ➤ Community Rating System



# Community Rating System Explorer





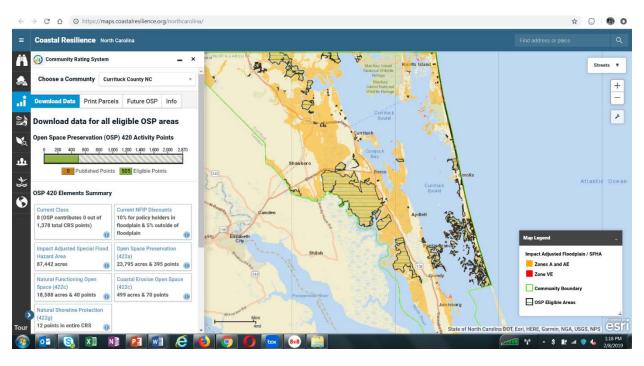
- ➤ National Flood Insurance Program's Community Rating System
  - ➤ Value's community's actions that reduce risk
  - ➤ Discounts on flood insurance premiums
- ➤ Identify parcels that count towards "Open Space Preservation" activities
- ➤ View and download the maps and supporting information necessary for CRS application
- ➤ Identify future open space in the floodplain

# Open Space Preservation Credits: Activity 420



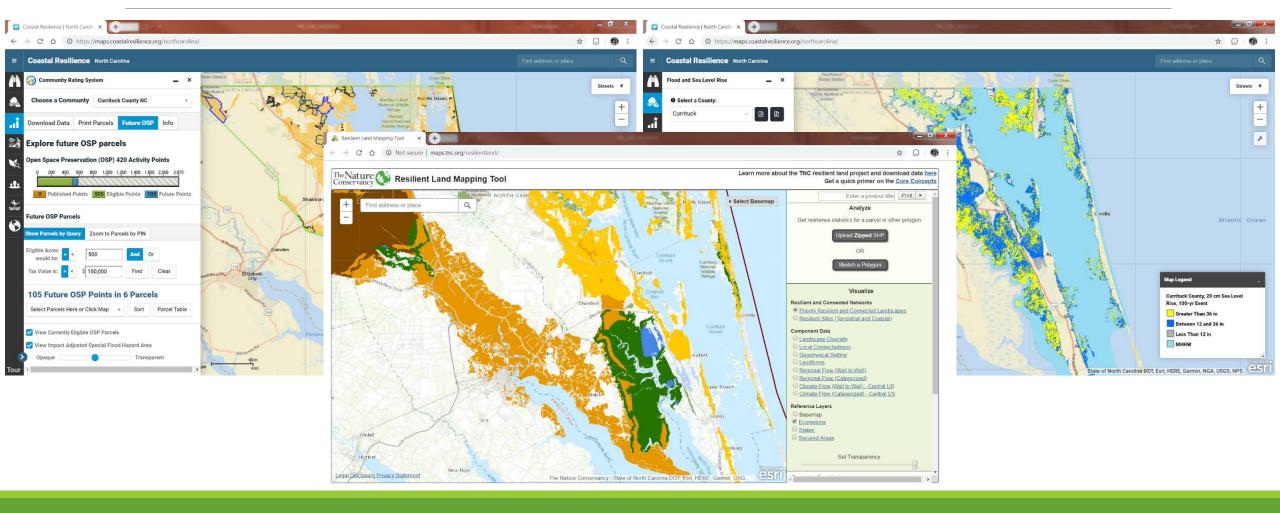


# Currituck County



- ➤ 505 OSP points identified
- ≥15% discount on flood insurance premiums
- **≻**Co-benefits
  - > Flood risk reduction
  - ➤ Reduced premiums
  - Ecosystem services (water quality, fisheries, etc.)
  - ➤ Cultural preservation
- > Momentum for additional action

# Currituck County – future opportunity



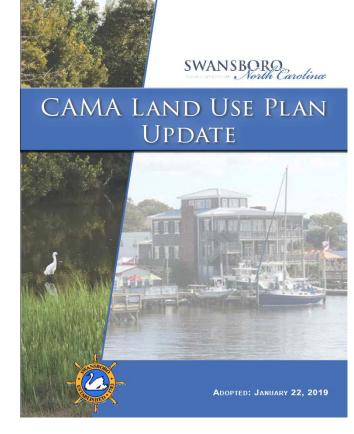
# Building on Success: Town of Swansboro





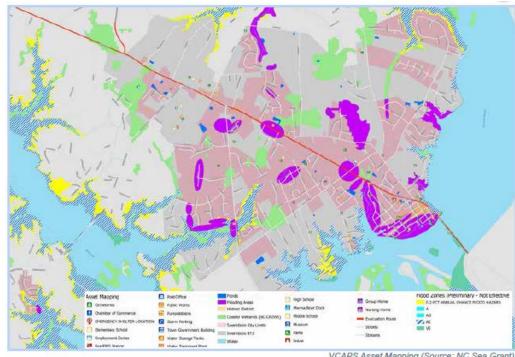






Vulnerability, Consequences, and Adaptation Planning Scenarios

### Building on Success: Town of Swansboro



VCAPS Asset Mapping (Source: NC Sea Grant)



#### Conservation Priority AREA (CPA)

Conservation Priority Areas (CPA) represent opportunities to allow lower density development clustered away from and respectful of environmentally sensitive areas, important natural views, and priority conservation preservation areas as identified by the community. Agricultural preservation was also identified as a community priority, but where Rural Agricultural (RA) areas overlap the CPA, the development character and density restrictions of the RA area shall prevail, and not be further restricted by the CPA.

#### CHARACTER

Generally speaking, flood-prone areas (including 100-yr and 500-yr floodplains), all wetlands (coastal and upland), streams (perennial or "blue line" and intermittent), riparian areas and mature forests are priority preservation areas. This is especially true of areas that have an impact on water quality and accomodation of storm surge

Development within this overlay should respect the natural environment that creates the quality of life that defines Swanshoro, Clustering development away from sensitive environmental features or assets (views habitat, etc.) is required. Deviations from typical lot standards may be necessary to accommodate clustering

#### ACCESS AND CIRCULATION

Streets will respect the underlying FLU designation, but may be designed with additional criteria that respect and enhance the natural environment. In particular, additional or enhanced flood mitigation, low impact design, or stormwater treatment measures may be necessary.

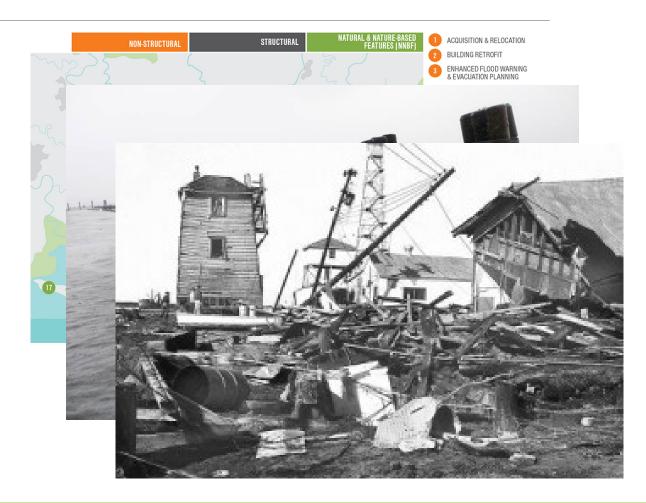




Setbacks should provide enhanced protection of environmental assets and provide additional buffering for structures or infrastructure that will be placed near CPAs. As such, setbacks will likely be determined by the underlying FLU(s) or zoning, but with additional setbacks from environmental features (stream, wetland, floodplain, open water body) that are within the CPA

### Coastal Resilience Considerations

- ➤ Comprehensive resilience approach
- All strategies have limits on their capacity to influence resilience
- These coastal hazards are not new...just different...and the associated challenges are not insurmountable





Thank you for your leadership in tackling this important issue for our coast!

