

# ADDRESSING COASTAL FLOODING IN HAMPTON, NH

RAYANN DIONNE & JAY DIENER  
BEACHES CONFERENCE, 2019

SEABROOK-HAMPTONS  
ESTUARY ALLIANCE

[WWW.SHEA4NH.ORG](http://WWW.SHEA4NH.ORG)



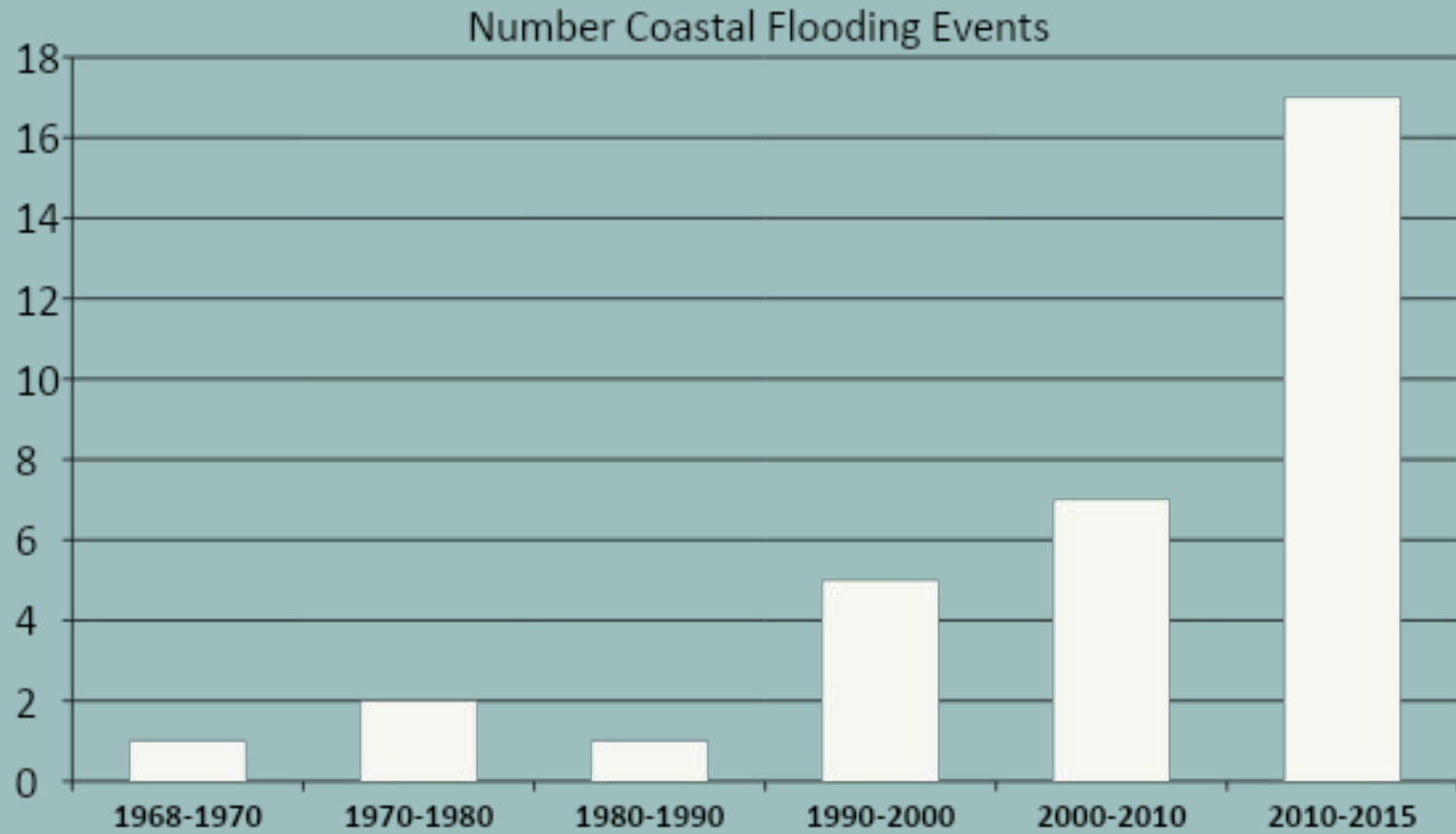
Photo: University of New Hampshire



# WHY DOES HAMPTON FLOOD?



# COASTAL FLOODING EVENTS 1968-2015



Data from the 2016 Hazard Mitigation Plan

# FLOODING THEN AND NOW



1950

Hampton Lane library

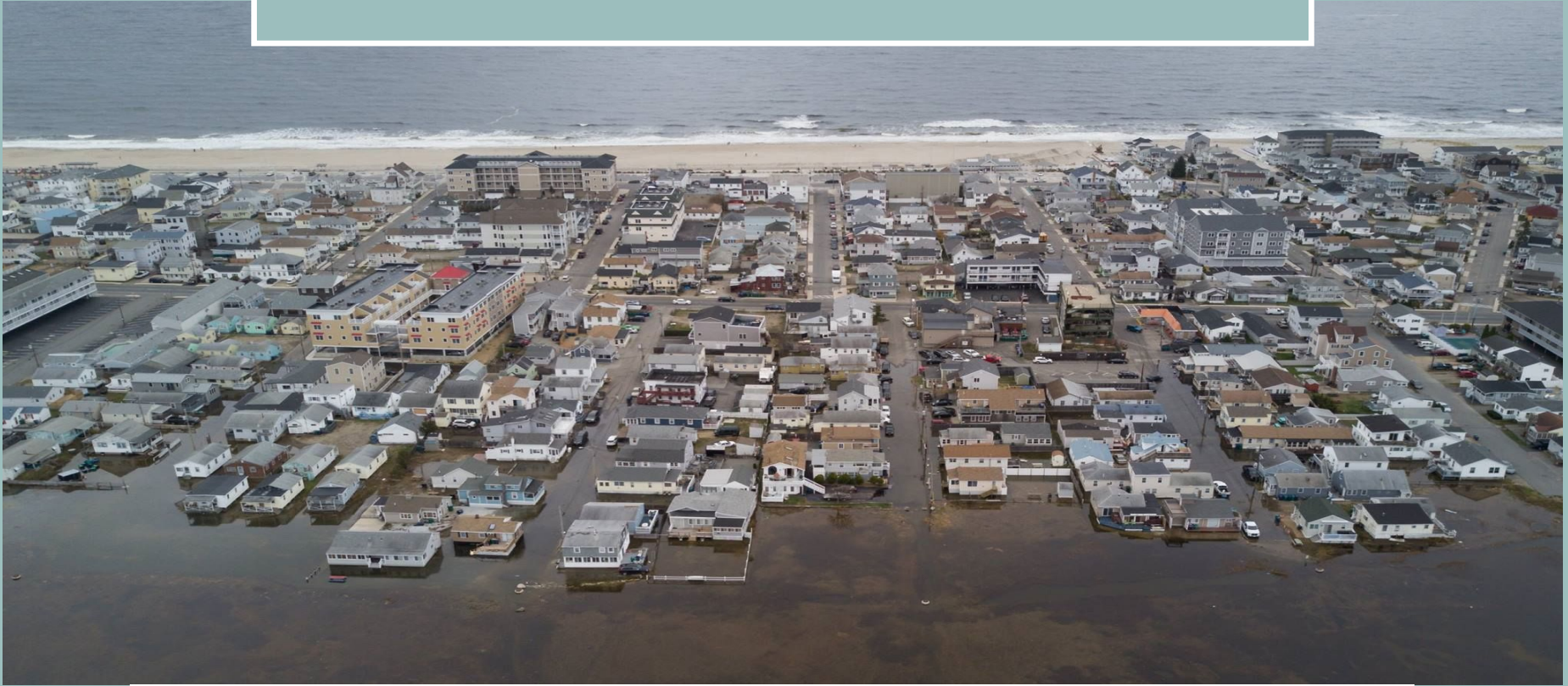


2018

NHPR



# TIDES IN HAMPTON



NOAA ANNUAL PREDICTED HIGH TIDE OCCURRENCES - 10 FT. +  
HAMPTON HARBOR, NH

2017  
**50**

2018  
**47**

2019  
**55**

# RECENT FLOODING EVENTS



Rusty Bridle - 2018



Liz Durfee - 2019



Union Leader - 2018

Union Leader

## ADOPTED ZONING FLOOD PROTECTION MEASURES

<b>2017</b>	Reduced the Impervious Coverage Maximum
<b>2018</b>	Minimum 1 foot of Freeboard
<b>2019</b>	Increased maximum building height up to 3 ft. when applying up to 3 ft. of Freeboard
<b>2019</b>	New structures or substantial redevelopment in the tidal Wetlands Conservation District must be elevated on pilings and open underneath.
<b>2019</b>	Exclude wetlands and their buffers from the minimum lot area calculation



# UNIQUE LOCAL & STATE PARTNERSHIP

GOOD IDEAS  
START WITH  
BRAINSTORMING

**GREAT IDEAS  
START WITH  
COFFEE**



State Agency



New Hampshire  
Coastal Program  
DEPARTMENT OF  
ENVIRONMENTAL SERVICES



Local non-profit

SEABROOK-HAMPTONS  
ESTUARY ALLIANCE





# WORKSHOP SERIES:

SEABROOK-HAMPTONS  
ESTUARY ALLIANCE



New Hampshire  
Coastal Program  
DEPARTMENT OF  
ENVIRONMENTAL SERVICES

## 1 Intro to Coastal Flooding + Property Resilience Strategies

- Coastal flooding 101
- Importance of coastal landforms
- FEMA flood maps
- Elevation certificates
- "DIY" Solutions

## 2 Options for Protecting Existing Homes from Coastal Flooding

- Flood insurance
- Elevating your home

## 3 Smart Shoreline Management Approaches

- Strategies to:
- Keep water out
  - Live with water
  - Get out of the water's way

And where they will and won't work



# FRAMING RETREAT IN CONTEXT



## ACCOMMODATION

LIVING WITH WATER



## PROTECTION

KEEPING WATER OUT



## RETREAT OR RELOCATION

MOVING OUT OF WATER'S WAY

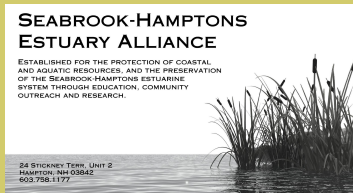
# CLIMIGRATION NETWORK GRANT

Developing an Understanding  
of and a Process for  
Long-term Retreat in  
Hampton, New Hampshire

A local/state partnership



Photo: University of New Hampshire





# FLOOD SURVEY SUMMARY

- Conducted: October 9, 2018 - October 25, 2018
  - Total Participants: 69
  - Target Audience: Hampton residents, property owners, businesses, municipal staff, and other stakeholders
- 
- 32 Participants own flood-prone property.
  - 25 Given the opportunity, would like to take action to make their property more resilient to flooding.
  - 7 Would consider moving to a location that they feel safer in.
  - 16 Would like to like to learn more about the potential of a voluntary buy-out program in Hampton.
  - 59% Have flood insurance.
  - 29% Disagree or Strongly Disagree that property that is severely damaged in floods should be rebuilt even if it is likely that the property will flood again.
  - 53% Agree or Strongly Agree that property owners should be responsible for addressing flooding in Hampton.



## Who is Responsible for Flooding?



63% Agree or Strongly Agree that property owners are responsible



69% Agree or Strongly Agree that the Town is responsible



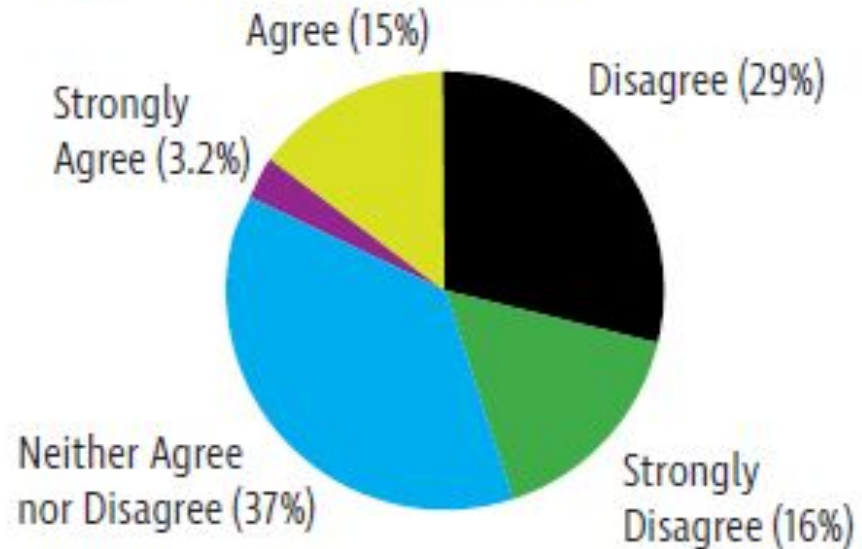
69% Agree or Strongly Agree that the State is responsible



58% Agree or Strongly Agree that the federal government is responsible

## Should Vulnerable Properties be Rebuilt?

Property that is severely damaged in floods should be rebuilt even if it is likely that the property will flood again.





# FLOOD SURVEY SUMMARY

## Long-Term Adaptation Planning

94% Think a long-term plan to adapt to sea-level rise is needed

“Start realistic buying out.”

## Buyout and Managed Retreat

68% Agree or strongly agree that they would participate in a discussion about voluntary buyout or managed retreat.

“I live at the beach. I would like to see it stay the same with less development.”

71% Agree or strongly agree that managed retreat may be one component of a long-term adaptation strategy for parts of Hampton.

“Build a sea wall or buy me out.”

“Raise my road.”

“Build a sea wall.”

“Don’t allow new development in the floodplain.”

“Develop managed retreat as an option.”

“Dredge the marsh.”

“CHAT”

## COASTAL HAZARDS ADAPTATION TEAM

- Unique Process
- Membership
- Goals



# CHAT PROGRESS

- Review of causes of flooding
- Review of “tides to storms” vulnerability assessment & associated maps
- Developing new local maps highlighting the most vulnerable neighborhoods





## CHAT - GOING FORWARD

- Review case histories of adaptation strategies used in similar communities
- Assessing and establishing pros and cons of flooding adaptation strategies for Hampton
- Establishing a process for assessing interest in, applying for, qualifying projects for, and managing work funded by Hazard Mitigation Grants
- Presenting findings and recommendations to municipal officials and town residents
- Contributing to Hampton's new "Coastal Hazards and Adaptation" Master Plan chapter

## FLOOD SMART ROUNDTABLE

- Bi-monthly meetings
- Community driven discussion topics
- Bring in local/regional experts



# 3-PRONGED APPROACH TO ADAPTATION

- Flooding-specific zoning updates
- CHAT - Investigation and assessment of adaptation strategies
- Flood Smart Roundtable - public outreach on flooding issues



2017 King Tide photo contest