

# Flood Map & Flood Damage Prevention Ordinance

Planning Board

April 1, 2020

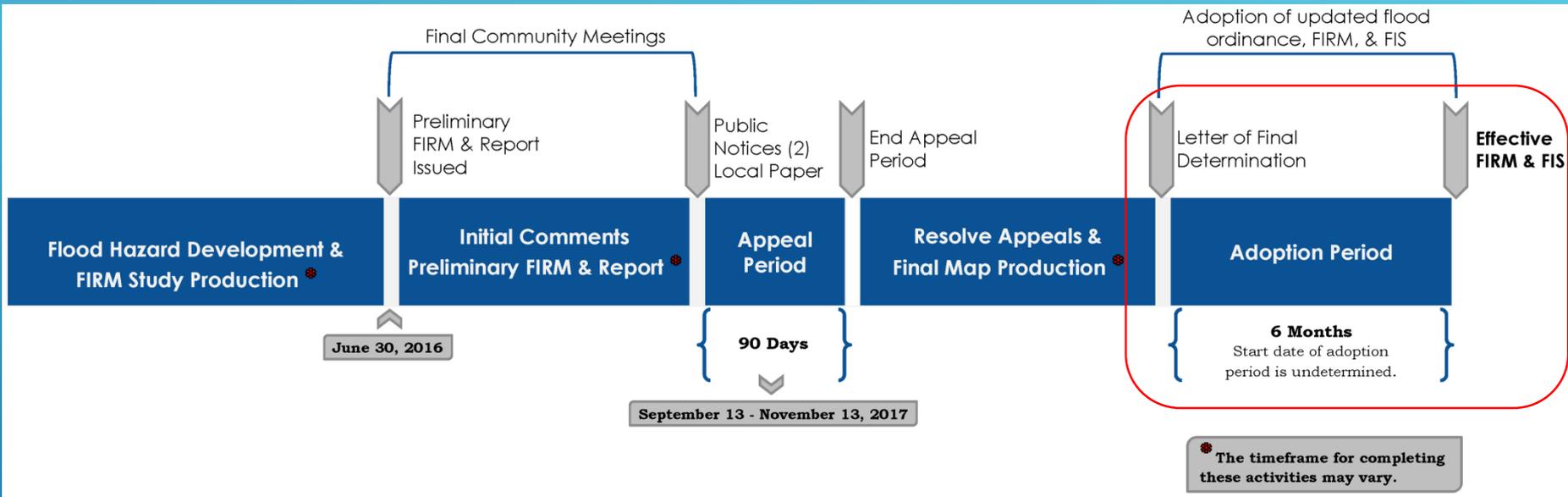


# FLOOD MAP REVISIONS



- ▶ New preliminary flood maps released for Dare County – June 30, 2016
- ▶ Last update September 20, 2006
- ▶ NC Floodplain Mapping-Digital FIRMs  
<http://fris.nc.gov/fris/>
- ▶ Must adopt the maps, study, and ordinance by June 19, 2020

# TIMELINE



# MAJOR CHANGES TO PRELIMINARY FIRMS

- ▶ Fewer VE zone properties
- ▶ Fewer AE zone properties, particularly west of NC 12
- ▶ Removal of causeway properties from VE zone
- ▶ Increase in X zone properties town wide
- ▶ Base flood elevations reduced in AE zone; most new BFE's are 4 or 5, formerly 8-10.
- ▶ Base flood elevations modified in VE zone; range from 10' – 12'; formerly 11' through entire town
- ▶ Addition of AO zones west of primary frontal dune

# FLOOD DAMAGE PREVENTION ORDINANCE

The standards for AE and VE Flood Zones largely remain the same.

- ▶ State Model Ordinance updates
- ▶ Local LES language

Draft ordinance available:  
[www.nagsheadnc.gov/floodmaps](http://www.nagsheadnc.gov/floodmaps)

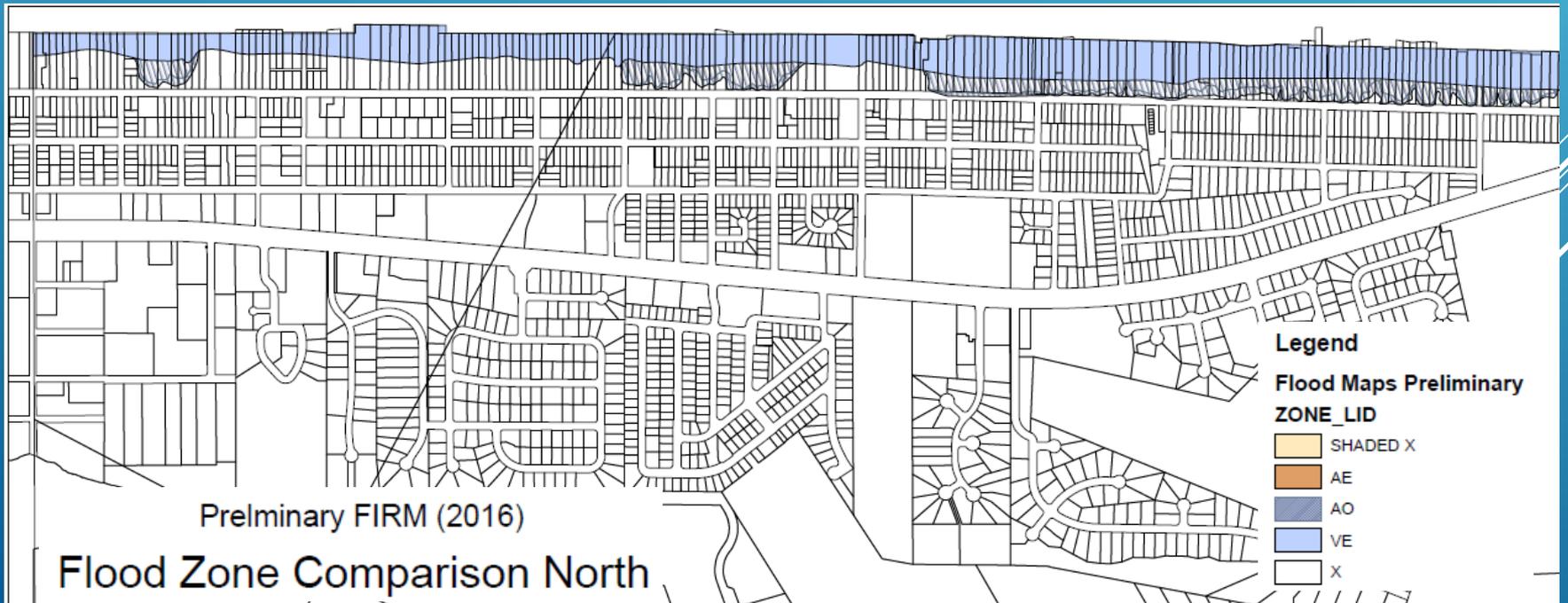
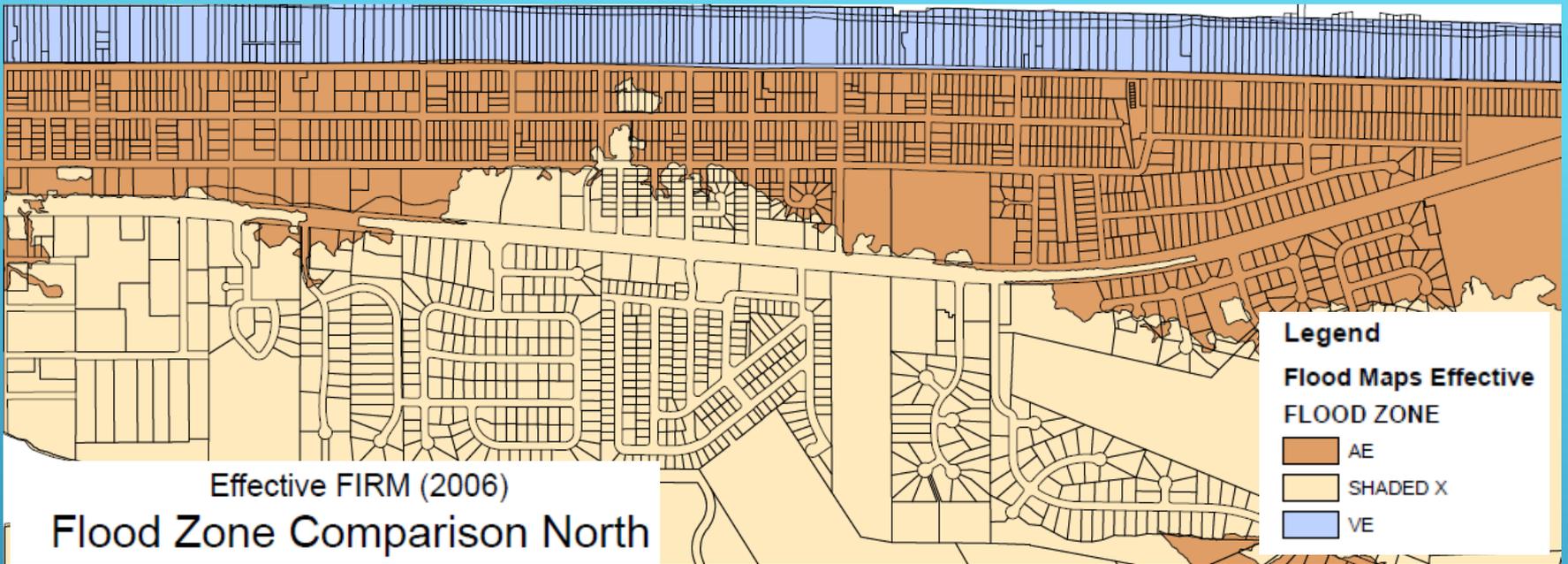
# STATE REVIEW & COMMENT

- ▶ 11.41.1. Statutory Authorization-update with new 160D references
- ▶ 11.43.5.5.3.- strike template language of “Insert Cost of Structure)
- ▶ 11.43.7.7. Add word “be”.

*Any applicant to whom a variance is granted shall be given written notice specifying the difference between the RFPE and the elevation to which the structure is to **be** built*

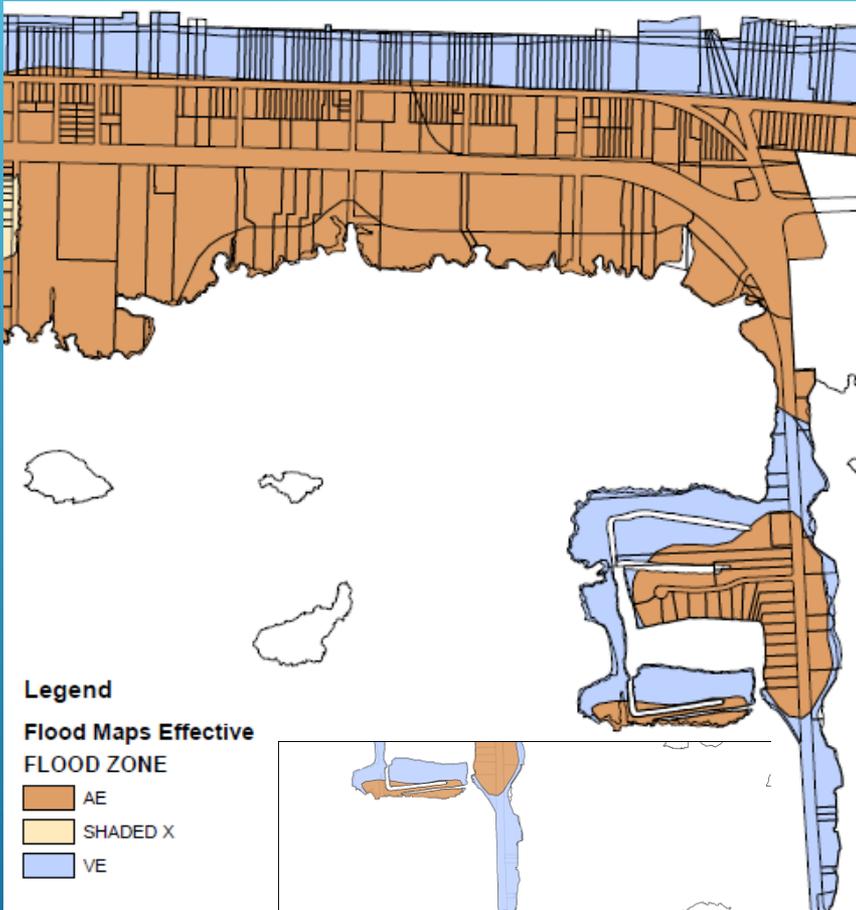
# STATE REVIEW & COMMENT

- ▶ 11.44.3.2.- Add the following:  
“Floodproofing shall not be utilized on any structures in VE zones to satisfy the regulatory flood protection elevation requirements.”
- ▶ Modify the date utilized in the definition of “Existing manufactured home park” to reflect Insert the date of the community’s initial floodplain regulations- *February 3, 1975*.
- ▶ Amend the definition of “Pre-Firm” to reflect the initial FIRM date of *November 10, 1972*.

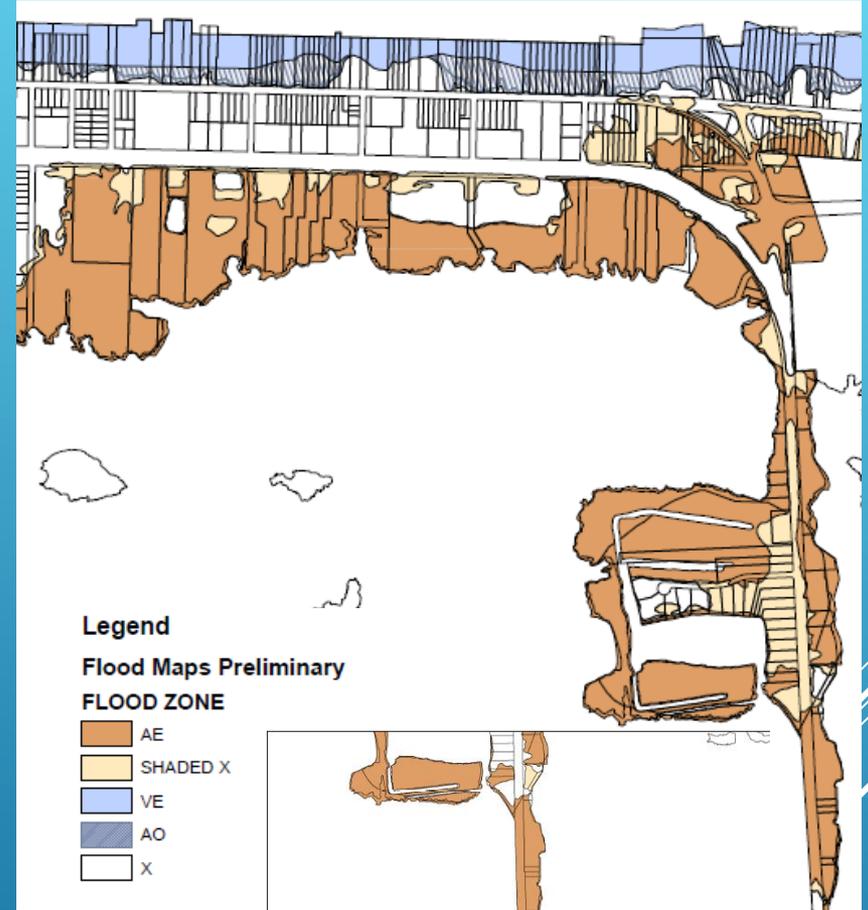


# Flood Zone Comparison South

Effective FIRM (2006)

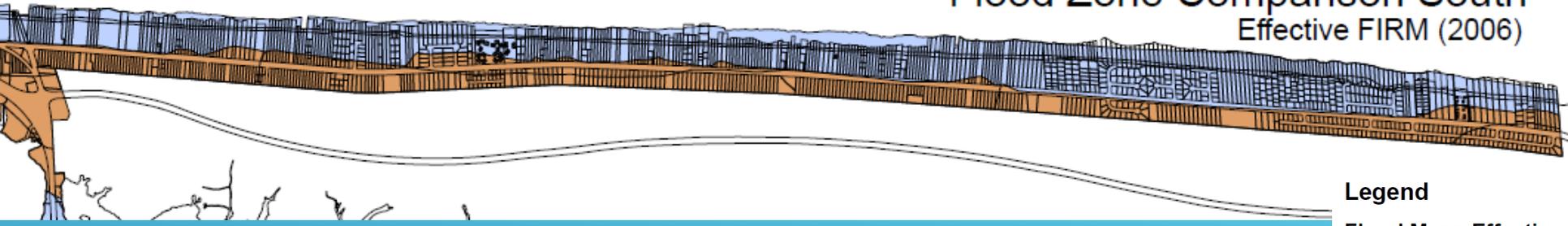


# Preliminary FIRM (2016)



# Flood Zone Comparison South

## Effective FIRM (2006)

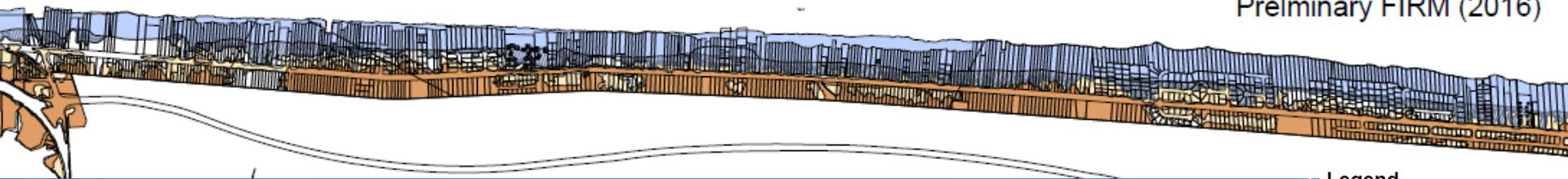


### Legend

#### Flood Maps Effective FLOOD ZONE

- AE
- SHADED X
- VE

## Preliminary FIRM (2016)



### Legend

#### Flood Maps Preliminary FLOOD ZONE

- AE
- SHADED X
- VE
- AO
- X



# CREATION OF LOCAL ELEVATION STANDARD (LES)

- ▶ Locally adopted elevation level used as the Regulatory Flood Protection Elevation (RFPE) to mitigate flood hazards in Shaded X and X, AE, AO, or VE flood zones as depicted on the FIRMS for Nags Head.

# BENEFITS OF LES

- ▶ The town is proactively regulating based on known historical risk.
- ▶ The model flood damage prevention ordinance, the terminology, and standards are consistent between the town and the rest of the county.
- ▶ Allows property owners to experience a decrease in flood insurance premiums, but allows the town to regulate using a local elevation standard based on known flooding risk.
- ▶ Avoid future loss and risk to property owners for new construction and additions.
- ▶ The LES protects against future costly insurance rate increases for non-conforming construction. The new maps should positively affect insurance rates for many property owners which may cause owners to cancel flood insurance coverage. However, if flood maps are updated in the future to reflect expanded flood zones or higher BFE's, these properties may become non-conforming and face costly insurance rate increases.

# LOCAL ELEVATION STANDARD

- East of 12/1243:  
12' and VE construction requirements
- For non-oceanfront areas (west of NC 12 or SR 1243 and the Causeway):  
10' feet would be required for all new construction

The Town will adopt the FIRM for flood insurance purposes.

# HOW THE LES AFFECTS PROPERTY

- ▶ East of 12/1243: Treat as V Zone with V zone requirements; no enclosures
- ▶ West of 12/1243: Treat as AE; Limit enclosures 300 sq. ft. or less
- ▶ Existing structures: Areas cannot be converted for temperature controlled space unless meets RFPE
- ▶ Section 11.44.2.7.9., Standards in Shaded X and X:
  - ▶ Substantial improvement/damage definitions do not apply
  - ▶ Lateral additions- structures located west of NC 12 and SR 1243 (where the reference level of existing conditioned, temperature controlled space is located below the RFPE)- may be increased by 25% at the same level, without having to be elevated to or above the RFPE
  - ▶ Remodeling/renovations existing habitable area- allowed as long as footprint does not increase.

# Northern Nags Head- Ground Elevations

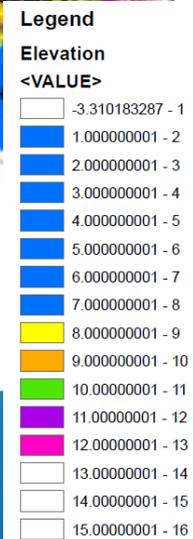


**Legend**

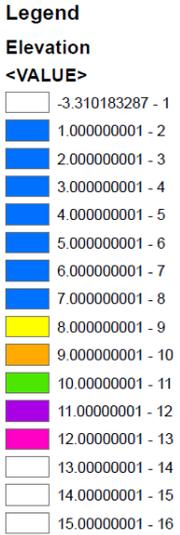
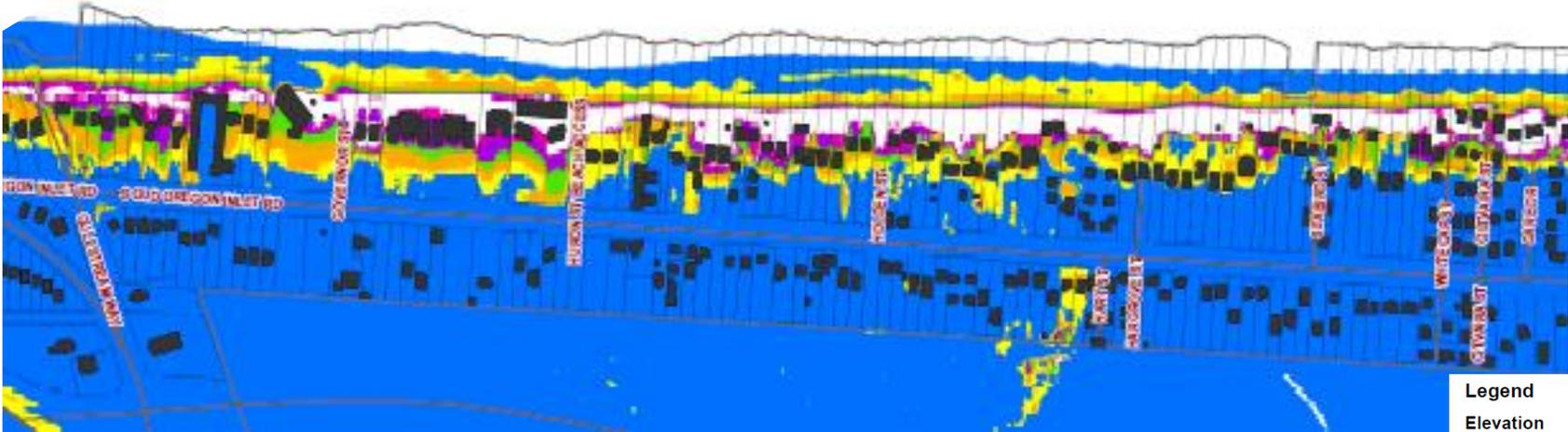
**Elevation**  
**<VALUE>**

White	-3.310183287 - 1
Light Blue	1.000000001 - 2
Medium Blue	2.000000001 - 3
Dark Blue	3.000000001 - 4
Very Dark Blue	4.000000001 - 5
Black	5.000000001 - 6
Black	6.000000001 - 7
Black	7.000000001 - 8
Black	8.000000001 - 9
Black	9.000000001 - 10
Black	10.000000001 - 11
Black	11.000000001 - 12
Black	12.000000001 - 13
Black	13.000000001 - 14
Black	14.000000001 - 15
Black	15.000000001 - 16

# Central Nags Head- Ground Elevations



# South Nags Head- Ground Elevations



# NAGS HEAD ANALYSIS

1,004/19% structures (Existing FEMA non-compliance)

1,178/22% structures (Proposed LES non-compliance)

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**174 structures** (non-compliance)



3%

1,178 non-compliant structures

78%

Non-compliant structures will be within an X flood zone with an LES of 10'.

**Why is this significant?**

*Properties could build on grade without an LES.*

*All of these properties have ground elevations below 11'.*

**House built- 1972**

**Lot area- 11,325 sq. ft.**

**Ground Elevations- 6.5-6.7**

**First Floor- 9.7**

Building/Decks- 1,363 sq. ft.

Concrete parking/drives- 559 sq. ft.

**Total lot existing coverage-**

**1,921 sq. ft. (16.9%)**

**Allowable lot coverage (33%)- 3,737.25 sq. ft.**

**Available coverage- 1,816.25 sq. ft. (16.1%)**



**House built- 1972**

**Lot area- 11,325 sq. ft.**

**Ground Elevations- 6.5-6.7**

**First Floor- 9.7**

**First floor area- 768 sq. ft.**

**25% lateral addition- 192 sq. ft.**

**Available coverage- 1,816.25 sq. ft.  
(16.1%)**

**Minus lateral addition- 192 sq. ft.**

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**Remaining coverage- 1,624.25 sq. ft.**





# NEXT STEPS

# STAFF CONTACTS

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