

TOWN OF NORTH TOPSAIL BEACH

Hazard Mitigation Plan

Annex 3

To

Onslow County Hazard Mitigation Plan

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PREFACE (SEE ONSLOW COUNTY MJ HMP)

I. INTRODUCTION

A. Background (See [Onslow County MJ HMP](#))

B. Purpose (See *Onslow County MJ HMP*)

C. Scope (See *Onslow County MJ HMP*)

D. Authority (See *Onslow County MJ HMP*)

E. Participants in the Planning Process

The Town of North Topsail Beach Hazard Mitigation Plan is documented as an annex to the FEMA approved Onslow County Multi-Jurisdictional Hazard Mitigation Plan, originally adopted in 2004. The plan was developed in response to the U.S Congressional directive in 2000 and requires periodic review, update and additional FEMA approval. A progress report of the review and update is also a requirement for the 2014 CRS Cycle Review. North Carolina Emergency Management requires the revised plan by December 31, 2014, six months prior to the FEMA review, scheduled for June 29, 2015.

In July 2014, the Annex was reviewed and updated by the Town's Inspections, Planning, Public Works, Fire and Police Departments. Consolidated departmental updates were submitted to the Planning Board. In August and September, 2014, the Planning Board reviewed the Town's Annex to Onslow County's plan. On October 2, 2014, Board of Aldermen held public meeting to review the Town's Annex. Attached are the meeting notices and the affidavit of publication.

F. The Planning Process

1. The Hazard Identification and Analysis Matrix

In a number of meetings conducted in 2004, the Town staff and the Planning Board prepared the Hazard Identification and Analysis Matrix, using the Onslow County-prepared matrix format. The Town's committee, using the established countywide values, prioritized each of these hazards. Reviewed and approved again in 2014, the assigned priorities reflect the anticipated relative impact of each hazard. See [Appendix A - Hazard Identification](#).

2. Vulnerability Assessment

Onslow County Tax Department data and insurance data is used to indicate the number of structures and property values in the various categories of the worksheet. The Certified 2012 Municipal Population estimate for North Topsail Beach population as of July 1, 2013, is 767. The population data was developed using a growth factor of 1.88 for analysis of future conditions. North Topsail Beach has no industrial

properties, no hospitals and no schools. The current values of municipally owned buildings were taken from current insurance policies, and the infrastructure data was provided by the Public Works department. ONWASA provided the replacement values for all water and sewer infrastructure.

3. Capability Assessment

All existing policies and programs relative to hazard mitigation were examined and are listed in [Worksheet #3 – Community Capability Assessment – Town of North Topsail Beach](#).

4. Interim Conclusions

The predominant hazards for the Town of North Topsail Beach are hurricane winds, storm surge and associated flooding. The community goals are established to address the aftermath and to restore normalcy as soon as possible.

5. Values and Goals

The Town continues to take action to minimize storm damage, personal injury, and to expedite cleanup after storms. At committee meetings, these goals have been deemed essential.

6. Mitigation Strategies and Policies

The mitigation strategies were determined by evaluating current policies and their effectiveness. Additional assistance was obtained from Geographic Technologies Group, Inc.

7. Implementation Responsibilities

The responsible departments or individuals were established based on their general assignment during previous disasters.

8. Monitoring, Evaluating, and Reporting Progress

Most of the strategies were found to be ongoing activities or projects that have no beginning or end, programs that Town departments are always trying to improve. Some strategies are “budget sensitive” and are indicated by budget year.

9. Revisions and Updates

Annually, the Planning Board shall review this plan and propose revisions to the Board of Alderman. The Town must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval in coordination with Onslow County within five (5) years in order to continue to be eligible for mitigation project grant funding.

G. Adoption of the Plan

The updated 2015 North Topsail Beach Annex to the Onslow County Multi-Jurisdictional Hazard Mitigation Plan will be presented in a public meeting held on October 2, 2014 for public input and for the Board of Aldermen to “approve” the plan to be submitted to North Carolina Emergency Management (NCEM) and the Federal Emergency Management Agency (FEMA), Region IV. The resolution adopting the plan can be found in [Attachment #2](#) to this annex.

II. COMMUNITY VALUES AND GOALS

The Town continues to develop policies and take action to minimize storm damage and personal injury. The predominant natural hazards to this area are hurricanes, storm surges, winds and associated flooding. Community goals have been established relative to hurricane preparedness and cleanup. The Community goals are listed in [Worksheet #1 – Community Goals \(Town of North Topsail Beach\)](#).

The Town’s goal is to prevent loss of life and personal injury from all natural hazards. The Town seeks to minimize the damage of public infrastructure resulting from natural hazards. Sewage lift stations are generally affected by flooding, wind and loss of electrical power. The Town seeks to promote public awareness of hazard mitigation and to expedite post-disaster cleanup, repair and construction. The Town intends to continue efforts to protect the fragile natural environment.

WORKSHEET #1: COMMUNITY GOALS TOWN OF NORTH TOPSAIL BEACH

Goal Category	Goal Statements (Include source reference)	New or Existing Goal	Hazard Threat Addressed (type of hazard and/or location)
Future Development/ Redevelopment	Reduce loss of life and personal injury from natural hazards.	Existing	All Hazards
Future Development/ Redevelopment	Minimize the damage to public infrastructure resulting from natural hazards.	Existing	Entire Planning Area
Future Development/ Redevelopment	Manage future development so that vulnerability of private property to natural hazards is reduced.	Existing	Entire Planning Area
Future Development/ Redevelopment	Expedite post-disaster clean up, repair and construction.	Existing	Entire Planning Area
Future Development/ Redevelopment	To preserve and protect key facilities and services from the threat of terrorists or others wishing to damage, destroy or contaminate public assets.	Existing	Entire Planning Area
Natural Resource Protection	Protect the fragile natural and scenic areas located near estuarine shorelines, ocean beaches and New River Inlet.	Existing	Entire Planning Area

III. MITIGATION STRATEGIES AND POLICIES

A. Objectives

The Town of North Topsail Beach supports Onslow County in the attainment of its objectives and essentially has the same basic goals and objectives (See [Onslow County MJ HMP](#)).

Implementation Strategies	Objectives
1,2,3,4, 14,15	Improve education and outreach to the community regarding flood hazards and flood mitigation.
1,2,3,4,6,8,9,11,13,14,15,16	Consider implementation of activities as outlined in the NFIP CRS Coordinator’s Manual to increase savings to insured property owners by improving CRS classification.
6	Improve Storm water drainage in NTB
2,3,8,9,11,12,13,14,15,16	Support activities that will modify and make structures less susceptible to damage during natural hazard events
4,12	Access Onslow County GIS and Planning Department resources relevant to hazard mitigation. Meet annually with Onslow County staff to coordinate progress of Hazard Mitigation Plans.
1,3,4,14	Provide effective evacuation prior to natural hazard events.

B. Mitigation Strategies

The following mitigation strategies have been decided upon to achieve the stated objectives and goals. A number of these are similar to the strategies adopted by Onslow County (See [Onslow County MJ HMP](#)).

1. Develop and implement hazard mitigation education programs to minimize risk to property and individuals. (Community Rating System (CRS) Coordinator - ongoing).
2. Assist local real estate agents, insurance companies, banks and other lending institutions by notifying them of the availability of flood plain information. (Community Rating System (CRS) Coordinator - ongoing).

3. Provide flood information in the Town newsletter and direct mailing to homeowners. (Community Rating System (CRS) Coordinator - annual).
4. Post map indicating the evacuation routes, as outlined in the Town's Storm Preparedness Plan. (Police & Fire Department - ongoing).
5. Continue the restriction of bulk fuel storage facilities in accordance with the CAMA Land Use Plan. (Zoning Administrator/CAMA LPO - ongoing)
6. Continue the limitation of impervious surface for each lot to minimize storm water runoff in accordance with the NTB Town Code and CAMA regulations. (Zoning Administrator/CAMA LPO - ongoing)
7. Continue the prevention of dune disturbance and restriction of structures in the inlet hazard area to single-family dwellings only in accordance with the CAMA Land Use Plan. (Zoning Administrator/CAMA LPO - ongoing)
8. Continue the requirement of structures damaged more than 50% to be rebuilt in compliance with current standards in accordance with CAMA regulations and NTB Town Code Chapter 8 Flood Ordinance. (Zoning & Floodplain Administrator/ CAMA LPO - ongoing)
9. Continue the requirement of 2-foot freeboard for all new construction in accordance NTB Town Code Chapter 8 Flood Ordinance. (Zoning & Floodplain Administrator/ Building Inspector - ongoing)
10. Continue the enforcement of 48 foot height maximum for new structures in accordance with NTB Town Code Chapter 7 Planning & Zoning. (Zoning Administrator - ongoing)
11. Continue the enforcement of VE Zone Construction Standards in accordance with NTB Town Code Chapter 8 Flood Ordinance. (Zoning Administrator/ Building Inspector - ongoing)
12. Support activities in the development of Army Corps of Engineers Federal Shoreline Protection Project. (Town Manager - ongoing)
13. Continue the setback requirements for Ocean Hazard and Inlet Hazard Areas in accordance with CAMA regulations. (Zoning Administrator/ CAMA LPO - ongoing)
14. Maintain Town web site providing safety and flood information. (CRS Coordinator/Town Clerk – ongoing)
15. Provide list of contractors skilled in retrofitting techniques. This will be applied Town wide. (Floodplain Administrator/ Building Inspector - ongoing)
16. Continue requirement of buffer area from mean high water in accordance with CAMA regulations (CAMA LPO – ongoing).

C. Mitigation Actions and Policies

1. The Town of North Topsail Beach adopts the following actions:
 - a. To Counter Rising Water/ Flooding:

- North Topsail Beach deals with NC DOT for flooding on State highways as the need arises.
 - The Town complies with CAMA requirements and has restored several wetlands sites.
 - North Topsail Beach has participated in the NFIP since 1990 and the Community Rating System since its inception.
 - The Town will comply with NFIP requirements for repairs, remodeling, and additions, and opportunities for retrofitting in coastal hazard areas, outlined in FEMA 499 Technical Fact Sheet No. 3
 - Duties of the Flood Plain Administrator have been assigned.
 - The Flood Damage Prevention Ordinance addresses freeboard.
 - The White Oak River LIDAR mapping has been completed. New DFIRMS are available.
 - North Topsail Beach addresses drainage issues as the need arises.
 - Local TV stations have sophisticated equipment to predict and accurately report weather. They are even able to pinpoint geographic areas. There is a special audible alert that precedes weather advisories.
 - State building codes establish specifications for construction.
 - State and CAMA buffer rules are enforced to improve the quality of storm water runoff.
 - State requirements are adhered to for erosion and sedimentation plans.
 - North Topsail Beach removes debris as soon as possible after a heavy storm event.
 - Culverts and drains are kept free of debris.
 - North Topsail Beach provides technical assistance to property owners regarding protecting their property.
 - North Topsail Beach's ordinances have established laws, which address Base Flood Elevations.
- b. To Counter High Winds:
- The Jones-Onslow Electric Membership Cooperative provides electric power to the community and they have a continuous program of tree trimming and updating lines.
 - Mobile home owners are educated via the radio and television when severe weather is threatening.
 - The National Weather Service monitors and reports wind speeds and storm conditions.

- Local TV stations have sophisticated equipment to predict and accurately report weather. They are even able to pinpoint geographic areas. There is a special audible alert that precedes weather advisories.
 - North Topsail Beach removes debris as soon as possible after a high wind event utilizing Town employees, volunteers, contractors, and other assistance.
- c. To Counter Winter Storms:
- The National Weather Service monitors and reports winter storms.
 - Local TV stations have sophisticated equipment to predict and accurately report weather. They are even able to pinpoint geographic areas. There is a special audible alert that precedes weather advisories.
 - North Topsail Beach clears roads on Town-maintained street system and assists the State on State-maintained highways.
 - County Health Department and DSS provide information on heating assistance.
- d. To Counter Wild Fires:
- The NC Forestry Service has an ongoing wildfire education program.
 - Fire risk is broadcast via FIRENET, communications from the State forestry agency to counties and local fire departments.
 - Emergency staff meets with the NC Forestry Service personnel at least yearly.
- e. To Counter Drought:
- The National Weather Service monitors and reports rainfall.
 - North Topsail Beach supports Onslow County's water conservation plan that is in effect.
 - Local TV stations have sophisticated equipment to predict and accurately report weather. They are even able to pinpoint geographical areas. There is a special audible alert that precedes weather advisories.
- f. Miscellaneous/ General:
- County Health Department and State Division of Social Services both provide educational information and information on resources.
 - TV and radio stations continue to educate residents on various types of weather/ hazard events and offer suggestions for addressing.
 - North Topsail Beach Town Code Chapter 7 addresses nonconforming buildings.
 - Duties of all code enforcement staff (i.e., Building Code, Zoning, CAMA LPO, Floodplain Administrator) incorporate mitigation strategies.

- Police alert special needs population of need to evacuate.
 - Regulations exist and are enforced to prevent erosion of the land due to construction.
 - County Schools continue to teach about and prepare children for disasters.
 - Mitigation strategies are incorporated into the environmental impact review of projects.
2. The Town of North Topsail Beach adopts the following policies:
- a. Make use of North Topsail Beach’s flood plain, parcel data, and aerial photographs in digital format. The Onslow County GIS is capable of overlaying this coverage on its geographic information system (GIS) and furnishing the Town of North Topsail Beach with this support. This is an existing program.
 - b. Ensure that North Topsail Beach maintains documents about flood insurance, flood protection, flood plain management, and natural and beneficial functions of flood plains. Many documents are available free of charge from the Federal Emergency Management Agency (FEMA). This is a continuation of work performed for the CRS program.
 - c. Continue to stay current with all Community Rating System reporting requirements to ensure continued program participation. Actively pursue activities that will lower our CRS rating.
 - d. Continue to actively pursue State and Federal grant funds to assist in the hazard mitigation recommendations included in the plan.
 - e. North Topsail Beach will continue to encourage projects undertaken by the Town’s Police Department, Fire Department, and Public Works, which will lessen the vulnerability of the Town and its residents to natural hazards.
 - f. When projects are found to address hazard mitigation, the availability of State and Federal grant funds should be investigated that may assist the Town with the cost. This is a continuation of current policy.
 - g. Continue to update and use the existing Town’s Storm Preparedness Plan.
 - h. Fire Department is working on a computer system to accommodate the National Fire Information Reporting System. This is a continuation of an existing program.
 - i. Town staff will stay current with Onslow County’s water conservation plan.
 - j. The mitigation strategies will be reviewed at least yearly to evaluate progress on the mitigation strategies selected and identify new strategies and update plans every five years.
 - k. Town will evaluate the current building and development forms for evidence that they identify and address mitigation strategies.

1. Codes and adopted plans and how they will influence mitigation measures are listed below and described in [Appendix C](#):
 - CAMA Land Use Plan
 - Zoning Ordinance
 - Building Codes and Inspections
 - Subdivision Ordinance
 - Flood Damage Prevention Ordinance
 - NFIP and Community Rating System
 - NCAC 15A CAMA Regulations
 - Town's Master Plan

D. Geographic Planning Area

The Geographic Planning Area is comprised of the two flood zones (AE and VE) found in North Topsail Beach. Flooding generally occurs with occurrence of storm surge affecting the ocean front lots and rising waters effecting lots adjacent to the sound. All hazards could potentially affect all property within the Town limits.

IV. IMPLEMENTATION

A. Process

The North Topsail Beach annex of the Onslow County Hazard Mitigation Plan will be implemented through the delegation of assignments by the Town Manager, and as specified within this plan. In the [Section III, Mitigation Strategies and Policies](#), 22 mitigation actions are listed and assigned to specific departments or divisions. Established policies support the goals and objectives of the Hazard Mitigation Plan. These are indicated in [Worksheet #5 –Geographic Planning Areas \(GPA\) Polices – Town Wide \(Town of North Topsail Beach\)](#).

It will be the responsibility of the Town Manager to ensure that these actions are completed by associated deadlines. The completion of each proposed mitigation action is feasible within the timeframe allowed. Many of these mitigation actions are ongoing and are accomplished as a matter of routine.

B. Funding Sources

Funding sources are identified as local funds obtained during the annual budgeting process. Additional grant funding shall be pursued.

**WORKSHEET # 2: GEOGRAPHIC PLANNING AREA POLICIES
TOWN OF NORTH TOPSAIL BEACH**

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.)	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
<p>Public Education and Outreach.</p> <p>Work with the County to ensure implementation of a viable public education and outreach program for mitigation, preparedness, response, and recovery. Refer to the OC MJ-HMP for more information.</p>	<p align="center">All Hazards</p>	<p align="center">Town of North Topsail Beach General Fund</p>	<p align="center">Community Rating System Coordinator Ongoing</p>	<p align="center">This is an ongoing activity, year-round</p>	<p align="center">High</p>
<p>Make use of NTB flood plain, parcel data, and aerial photographs in digital format. Onslow County GIS should be capable of overlaying this coverage's on its GIS.</p>	<p align="center">Flooding</p>	<p align="center">Town of North Topsail Beach General Fund</p>	<p align="center">Planning Department</p>	<p align="center">This is an ongoing activity, year-round</p>	<p align="center">High</p>

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
<p>Ensure NTB continues to maintain flood insurance, flood protection, flood plain management, and natural and beneficial functions of flood plains. Many documents are located at Town Hall and Sneads Ferry Public Library; many Documents are from (FEMA).</p>	<p align="center">Flooding</p>	<p align="center">Town of North Topsail Beach General Fund</p>	<p align="center">Planning Department</p>	<p align="center">This is an ongoing activity, year-round</p>	<p align="center">Medium</p>

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.)	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
Assist local real estate agents with information handouts that will advise potential buyers to investigate the flood hazard for the property they are considering purchasing.	Flooding	Town of North Topsail Beach General Fund	Planning/ CAMA	This is an ongoing activity, year-round	Medium
Continue to send flood protection flyer to all property owners in NTB through a community newsletter. The flyer should include a general identification of the local flood hazard, flood safety, flood insurance, property protection, flood plain development permit requirements and drainage system.	Flooding	Town of North Topsail Beach General Fund	Planning	This is an ongoing activity, year-round	Medium

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
Continue staying current with all Community Rating System reporting requirements to ensure continued program participation. Actively pursue activities that will lower our CRS rating.	Flooding	Town of North Topsail Beach General Fund	Planning	Annual evaluation and report submitted to ISO for CRS credit	High
Request courtesy review by ISO/CRS Coordinator's to identify additional CRS credit activities.	Flooding	Town of North Topsail Beach General Fund	Planning	Yearly basis starts October and end in December	Medium

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.)	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
Continue to actively pursue State and Federal grants to assist in the hazard mitigation recommendations included in the plan.	All Hazards	Town of North Topsail Beach General Fund	Police Department Fire Department Planning	This is an ongoing activity, year-round	Medium
NTB will continue to encourage projects undertaken by the NTB PD, NTB FD, Public Works Dept	All Hazards	Town of North Topsail Beach General Fund	Police Department Fire Department Planning	This is an ongoing activity, year-round	Medium

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.)	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
When projects are found to address hazard mitigation, the availability of State and Federal grant funds should be investigated that may assist the Town with the cost.	Flooding	Town of North Topsail Beach General Fund	Planning Police Department Fire Department	This is an ongoing activity, year-round	Medium
Maintain a map and listing of streets that would be advised to evacuate in the event of a hurricane. At the appropriate time, Police and Fire will assist in the evacuation of those residents who are unable to leave on their own	Flooding	Town of North Topsail Beach General Fund	Police Dept Fire Dept	This is an ongoing activity, year-round	Medium

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.)	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
Continue to send public information newsletter to repetitive loss structures and to identify new losses, maintain repetitive loss database.	Flooding	Town of North Topsail Beach General Fund	Planning	Annual evaluation and report submitted to ISO for CRS credit	Low
Continue to maintain ditching along streets to facilitate drainage.	Flooding	Town of North Topsail Beach General Fund	NC DOT and NTB Public Works	we do not do this	Medium
Continue to update and use the existing NTB Storm Preparedness Plan Review the plan on a yearly basis with all departments.	All	Town of North Topsail Beach General Fund	All Departments	Yearly meeting and testing program	High
NTB continue to enforce storm water regulations established by the State and incorporate regulations in Zoning Ordinance.	Flooding	Town of North Topsail Beach General Fund	Planning	incorporate regulations in Unified Development Ordinance	High

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.)	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
The Town has revised its Flood Damage Prevention Ordinance to require 2-foot freeboard and VE Flood Zone construction requirements. Continue to review and update as necessary.	Flooding	Town of North Topsail Beach General Fund	Planning	This is an ongoing activity, year-round	Medium
Town has required all electrical panels on the wastewater pumping stations be raised.	Flooding	Town of North Topsail Beach General Fund	Planning	This is an ongoing activity, year-round	Medium
NTB requires tie-down requirements for LP tanks and above ground oil heating tanks.	Hurricanes Flooding Nor'easters Tornadoes	Town of North Topsail Beach General Fund	Planning	This is an ongoing activity, year-round	Medium

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.)	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
Continue the requirement of structures damaged more than 50% to be rebuilt in compliance with current standards in accordance with CAMA regulations and NTB Town Code Chapter 8 Flood Ordinance.	Flooding Hurricanes Nor'easters	Town of North Topsail Beach General Fund	Planning	This is an ongoing activity, year-round	High
NTB has a Master Plan for the Town and will continue to review and update the master plan on and yearly basis	Flooding	Town of North Topsail Beach General Fund	Planning	Yearly basis during November completed December	Low
The NTB CAMA Land Use Plan will require updating in the year 2014. the Town will work to establish new goals for addressing flooding in all areas of the Town and protection of all AEC's.	Flooding	CAMA Grant through the state with the matching funds from the Town	Planning	Starting planning process for LUP 2014 for 2015 completion.	Medium

Worksheet # 2: Geographic Planning Area Policies Town of North Topsail Beach - Cont:

Policy (Classify each a new initiative, a continuation and support of existing policies, or a recommended change to an existing policy.)	Type(s) of Hazard This Policy will Target	Funding	Responsible Party/ Start & Completion Date	(Monitoring and Evaluation) Benchmarks and Indicators of Progress	Priority (High, Medium, Low)
The town will continue to support and enforce State rules and guidelines for AEC located within the Town limits.	Flooding	Reimbursed by State program Town of North Topsail Beach General Fund	Planning	This is an ongoing activity, year-round	High
The mitigation strategies will be reviewed at least yearly to evaluate progress on the mitigation strategies selected and identify new strategies, to incorporate into the Master Plan.	All Hazards	Town of North Topsail Beach General Fund	Yearly meeting with all departments during May	Plan is updated with new information	High
Beach Nourishment Project. NTB will continue to support its Federal Beach Nourishment Project.	All Hazards	Federal Project through Army Corps of Engineers Fund Town matching	All	This is an ongoing activity, year-round	High

V. MONITORING, EVALUATING, AND REPORTING PROGRESS

The Planning Department and the Planning Board have been assigned as the department and Board responsible for routine monitoring of policy implementation, and the schedule for such routine monitoring (e.g., quarterly, semi-annually, or annually).

A. Monitoring

The Planning Department is required to monitor the policies and programs for the Hazard Mitigation Plan under the supervision of the Town Manager. The Planning Department will present to the Planning Board any changes, updates that are required, for their recommendation to the Board of Aldermen.

B. Evaluating

The Town Manager and the Town staff meet at least once a year to evaluate and revise the programs under the Town's Storm Preparedness Plan to present to the Board of Aldermen for approval.

1. Benchmarks

Benchmarks have been established in the Town's Master Plan and will be reviewed annually by Town staff under the supervision of the Town Manager.

2. Responsibility

- a. Updating the Vulnerability Assessment, the Fire Department, the Police Department and the Planning Department will meet annually to review and update the vulnerability of the Town and report any needed changes to the Town manager.
- b. Updating the Capability Assessment, the Fire Department, the Police Department and the Planning Department will assess this requirement at the annual meeting.

C. Public Involvement

The Planning Board will receive the recommendation from the Town staff through the Planning Administrator. The Planning Board will hold public hearings and meetings on an annual basis to receive input from citizens and make recommendation to the Board of Aldermen.

D. Reporting

The Town Manager will be responsible to the Board of Aldermen in reporting necessary changes in any policy or program as required by the Town's Master Plan.

VI. REVISIONS AND UPDATES

The Town Manager will review the plan maintenance report and present the findings to the Board of Aldermen with recommendations for updates and revisions. As updates occur, the date, reason and responsible party noted.

APPENDIX A: HAZARD IDENTIFICATION (SEE ONSLOW COUNTY MJ HMP AND NTB HMP)

See attached [Worksheet #3 – Hazard Identification and Analysis Matrix \(Town of Topsail Beach\)](#) for Town of North Topsail Beach prioritization.

A. Hurricanes

Between the years 1953 and 2014, there were 47 hurricanes that in some way, affected the Town of North Topsail Beach. North Topsail Beach had a recorded death associated with Hurricane Fran in 1996. Property damage from storm surge, over-washed sand, flooding and falling trees has occurred. The major expense to the community has been for the removal of destroyed homes in Hurricane Fran and the storm surges of Hurricanes Bertha and Hurricane Floyd.

B. Tsunamis

In recorded history, there have never been any reports of tsunamis striking eastern North Carolina, so this is not considered a problem, even though the impact could be severe.

C. Flooding

Flooding in the Town of North Topsail Beach has been experienced during heavy thunderstorms and with hurricanes; these do affect the entire Town.

D. Nor'easter

The last recorded nor'easter causing any damage in North Topsail Beach was in March 1993. This nor'easter damaged several buildings and caused major coastal erosion along the Town's beaches.

E. Tornado/ Extreme Storms

Although tornado warnings occur several times a year in eastern North Carolina, North Topsail Beach has had only one confirmed tornado hit. This September 10, 1997 tornado (*NTB HMP; pg 53*) caused no major damage.

F. Drought/ Heat Wave

Drought is a part of North Carolina's climate - just like floods, hurricanes, and other severe weather. Most of the state has a [humid subtropical climate \(Koppen climate classification Cfa\)](#).

G. Wildfire

The Town of North Topsail Beach is susceptible to wildfires due to both the proximity and amount of coastal vegetation. No wildfires have been reported within the last 50 years in the North Topsail Beach town limits.

H. Winter Storm/ Freezes

Over the past 40 years, severe winter storms/ freezes in North Topsail Beach seem to occur, on the average, every ten years. Less severe freezes occur almost every year but do not cause major problems.

I. Earthquake

There has never been any record of seismic activity in recorded history in the Town of North Topsail Beach

J. Landslide

The coastal plain of North Carolina, which encompasses the Town of North Topsail Beach, is very close to being flat. There are no cuts into hills or along the coast to cause a landslide, so this is not considered a problem.

K. Dam/ Levee Failure

There are no dams located in the Town of North Topsail Beach, and private property would not be damaged so this is not considered a problem.

L. Volcano

In recorded history, there has never been any evidence of a volcano, and therefore never an eruption.

This information is based on long discussions in the Town's committee, memories of long-time Town employees, data taken from the National Weather Service, and recorded history of this area. Because resources are limited, the Town has chosen to direct its efforts to mitigating damages caused by hurricanes, flooding, and nor'easters. These hazards boil down to high winds and flooding and their aftermath.

**WORKSHEET #3: HAZARD IDENTIFICATION AND ANALYSIS MATRIX
TOWN OF NORTH TOPSAIL BEACH**

Hazard	Category / Degree of Risk					
	Probability ¹	Impact ¹	Spatial Extent ¹	Warning Time ¹	Duration ¹	PRI Score
Atmospheric Hazards						
Drought and Heatwave	3	1	1	2	2	1.8
Severe Thunderstorm / Hail	4	1	2	4	1	2.4
Hurricane & Coastal Storm	3	3	4	1	2	2.9
Tornado	3	1	2	4	1	2.1
Winter Storm	2	1	4	1	3	2.1
Geological Hazards						
Earthquake	1	1	1	4	1	1.3
Landslide & Sinkhole	2	1	1	4	1	1.6
Tsunami	1	2	2	3	4	2
Hydrologic Hazards						
Erosion	4	1	1	1	4	2.2
Dam & Levee Failure	1	2	2	4	4	2.1
Flood	4	2	3	3	3	3
Storm Surge	3	2	3	1	2	2.4
Other Natural Hazards						
Wildfire	4	1	2	4	2	2.5

¹On a scale from 1 to 4, with 1 being lower.

*See Table 5.1, Priority Risk Index Summary, page 125 of the Onslow County Multi-jurisdictional Hazard Mitigation Plan for explanation of the Categories and the Degrees of Risk.

** PRI VALUE = [(PROBABILITY x .30) + (IMPACT x .30) + (SPATIAL EXTENT x .20) + (WARNING TIME x .10) + (DURATION x .10)]

WORKSHEET #3: HAZARD IDENTIFICATION AND ANALYSIS MATRIX (CONT.)
TOWN OF NORTH TOPSAIL BEACH

Hazard	Category / Degree of Risk			Warning Time	Duration	PRI Score
	Probability	Impact	Spatial Extent			
Atmospheric Hazards						
Drought and Heatwave	Likely	Minor	Negligible	12-24 hrs	Less than 24 hrs	1.8
Severe Thunderstorm / Hail	Highly Likely	Minor	Small	Less than 6 hrs	Less than 6 hrs	2.4
Hurricane & Coastal Storm	Likely	Critical	Large	More than 24 hrs	Less than 24 hrs	2.9
Tornado	Likely	Minor	Small	Less than 6 hrs	Less than 6 hrs	2.1
Winter Storm	Possible	Minor	Large	More than 24 hrs	Less than 1 week	2.1
Geological Hazards						
Earthquake	Unlikely	Minor	Negligible	Less than 6 hrs	Less than 6 hrs	1.3
Landslide & Sinkhole	Possible	Minor	Negligible	Less than 6 hrs	Less than 6 hrs	1.6
Tsunami	Unlikely	Limited	Small	6-12 hrs	More than 1 week	2
Hydrologic Hazards						
Erosion	Highly Likely	Minor	Negligible	More than 24 hrs	More than 1 week	2.2
Dam & Levee Failure	Unlikely	Limited	Small	Less than 6 hrs	More than 1 week	2.1
Flood	Highly Likely	Limited	Moderate	6-12 hrs	Less than 1 week	3
Storm Surge	Likely	Limited	Moderate	More than 24 hrs	Less than 24 hrs	2.4
Other Natural Hazards						
Wildfire	Highly Likely	Minor	Small	Less than 6 hrs	Less than 24 hrs	2.5

*See Table 5.1, Priority Risk Index Summary, page 125 of the Onslow County Multi-jurisdictional Hazard Mitigation Plan for explanation of the Categories and the Degrees of Risk.

APPENDIX B: VULNERABILITY ASSESSMENT

A. Narrative Summary

The data in this appendix was taken from County tax maps, GIS databases, insurance records, Town facility databases and Federal census data. Other data was taken from personal knowledge of the Town's committee members, some of whom participated in the original development of the information.

1. Major Physical Features in the Town of North Topsail Beach;

North Topsail Beach is located on Topsail Island, which is a 26-mile long barrier island off the Atlantic seaboard. It is about 47.6 miles or 55 minutes north of Wilmington and 21.5 miles or 26 minutes south of Jacksonville, NC. North Topsail Beach can be reached from access points along I-40 and I-95, the major north/ south interstates. Access to the island is from NC Route 210 over a high-rise bridge. Approximately 13 miles of the Town's roads are included in the NCDOT road system. Approximately 6.93 miles of roadway are maintained by the Town.

Of the 3,475 square acres in the Town, the majority of the Town's developed and urban transition classified areas are concentrated in the White Oak River Basin (75%), with the remainder (25%) in the Cape Fear River Basin. This classification includes areas with partial municipal facilities and which are usually adjacent to developed residential areas. These areas are or will be primarily residential in nature, with some scattered commercial development.

2. Critical Facilities and Public Buildings

For purposes of this mitigation plan, The Town of North Topsail Beach considers critical facilities to be those structures from which essential services and functions for the continuation of public safety actions and disaster recovery are performed or provided. These facilities are essential to the health, safety, and viability of the community.

The inventory of critical facilities has been compiled using best available data from the Onslow County Manager's office, the North Topsail Beach Police, Fire, and Public Works Departments. Where possible, they have been shown on the [*Critical Facilities Map and Floodplain Map 9*](#) of North Topsail Beach.

These facilities include the supporting "life-line" infrastructure essential to the mission of critical facilities. For mitigation planning purposes, all critical facilities will be classified according to the following categories and numbered priority scales:

LEVEL 1: Must not lose operational capability

- North Topsail Beach Fire Dept Headquarters
- North Topsail Beach Police Department
- North Topsail Beach Town Hall
- North Topsail Beach Public Works Department

A major goal of the Town of North Topsail Beach is for these facilities to remain operational throughout any disaster in order to continuously provide vital public services.

LEVEL 2: Must be operational within 24 hours following event

- North Topsail Beach Town Hall
- North Topsail Beach fire stations
- Major roads and bridges
- Major government buildings

Initially the functions normally provided by Level 2 facilities may be provided by Level 1 facilities until these Level 2 facilities are once again operational. If they cannot be operational within 24 hours, some of their functions will be transferred.

The specific facilities are listed below:

NORTH TOPSAIL BEACH FACILITIES LIST

Facility Location

North Topsail Beach 2008 Loggerhead Court

Fire Departments

North Topsail Beach Fire Station (south) 3304 Gray Street

North Topsail Beach Fire Station (north) 2049 New River Inlet Road

Other Municipal Department

North Topsail Beach Public Works 3315 Gray Street

Police Departments

North Topsail Beach Police Department 2008 Loggerhead Court

Hospitals/ Clinics

(See *Onslow County MJ HMP*)

Utility Facilities

(See *Onslow County MJ HMP*) (Provided by private company located in Onslow County's unincorporated area).

Lift Stations

(See *Onslow County MJ HMP*) (Provided by private company located in Onslow County's unincorporated area).

Municipal Water Wells

(See *Onslow County MJ HMP*) (Provided by Onslow County Water Department)

3. Community exposure to all hazards

Not all hazards are site-specific, but town-wide.

4. Repetitive Loss Structures

The National Flood Insurance Program lists 205 dwellings that are repetitive-loss structures in the Town of North Topsail Beach. Most of these were constructed prior to the development of the FEMA flood plain maps and the adoption of the Flood Damage Prevention Ordinance. All of the structures are located within Special Hazard Flood areas. If there is a possibility that any of these can be relocated, raised, or otherwise removed from flooding hazards, the Town of North Topsail Beach will assist homeowners through assistance provided by Hazard Mitigation Program.

3. Geographic Planning Area and Demographics for Each Hazard

Documentation of Loss Estimates (See *Onslow County MJ HMP*)

4. Geographic Planning Area Process

The geographic planning areas were selected based on the types of hazards that have been experienced during the last fifty years and where the damage was located.

5. Geographic Planning Area Hazards

The actual hazards are based on the experience of the community.

6. Geographic Planning Area Present and Future Vulnerabilities

The only vulnerabilities that can be anticipated are along the ocean, New River Inlet and Stump Sound and its tributaries. These are the only fixed points where damage has occurred due to specific known events – storm surge and flooding due to hurricanes.

7. Geographic Planning Area Vulnerability Assessment

As described elsewhere, the primary hazards for which this community plans for are hurricanes and associated flooding. The major activity and public expenditures that are associated with these events is debris cleanup and disposal. Experience in this community has taught most to build high enough to avoid floodwaters. Public structures certainly observe this restriction except for those types of structures that must be in those locations (such as sewerage lift stations). In those cases, all possible precautions are taken to avoid or at least minimize damage and enable the facility to be quickly restored to operation.

[Worksheet #4- Geographic Planning Area \(GPA\) Vulnerability Assessment Town Wide \(Town of North Topsail Beach\)](#) follows:

**WORKSHEET #4: GEOGRAPHIC PLANNING AREA VULNERABILITY ASSESSMENT
TOWN OF NORTH TOPSAIL BEACH**

Hazards: Drought/ Heat Wave, Earthquake, Hurricanes and Coastal Flooding, Tornado/ Extreme Storms, Tsunamis, and Nor'easters

Current Conditions (2014)				Potential Future Conditions (2020)		
Type of Development	Number of Existing Private Buildings ¹	Current Value Structure Value ¹	Current Number of People	Projected Number of Private Buildings (If developed under existing policies) ¹	Projected Value ¹	Projected Number of People
Single-Family Residential	955	\$385,380,360		987	\$391,835,240	
Multi-Family Residential	1,526	\$272,582,590		1529	\$262,972,015	
Commercial	50	\$11,842,340		48	\$10,102,985	
Industrial	0	\$0		0	\$0	
Other (Vacant)	Vacant Parcels 1,350	Property Value \$144,786,950		1,332	\$131,937,100	
<u>Subtotal</u>	3,881	\$814,592,240	781	3,896	\$796,847,340	860

¹ Source: Onslow County Tax Administration

Worksheet #4: GPA Vulnerability Assessment Town of North Topsail Beach – Cont:

Hazards: Drought/ Heat Wave, Earthquake, Hurricanes and Coastal Flooding, Tornado/ Extreme Storms, Tsunamis, and Nor’easters

Current Conditions				Potential Future Conditions (2020)		
Type of Development	Number of Existing Public Buildings and Critical Facilities	Current Replacement Value	Current Number of People	Projected Number of Public Buildings and Critical Facilities)	Projected Replacement Value	Projected Number of People
Sewage Treatment Plant	0	N/A	0	0	0.00	0
Water Treatment Plant	0	N/A	0	0	0.00	0
Hospital	0	N/A	0	0	0.00	
Schools	0	N/A	0	0	0.00	0
Infrastructure (roads, bridges, drainage, etc.)	6.93 Town (St) miles 19.93 sewer miles 25 water miles 13 State Hwy miles	\$34,721,200	N/A	7.93Town (St) miles 21.93 sewer miles 27 water miles	\$37,357,200	N/A
Police Station	0	N/A			\$0.00	
Fire Station	2	\$435,872	22	2	\$771,744	30
Hazard Materials Facility	0	----	0	0	----	0
Government Offices	2	\$847,870	24	2	1,000,000	28
Emergency Shelter	0	N/A	0	0	N/A	0
Public Housing	0	----	0	0	----	0
Subtotal		\$36,004,942	46		\$39,128,944	58
TOTAL:		\$207,240,110	11,250		\$1,122,428,944	16,286

APPENDIX C: CAPABILITY ASSESSMENT

A. Existing Policies and Programs

1. CAMA Land Use Plan

The CAMA Land Use Plan was updated and submitted to the Division of Coastal Management in March 2008. Upon receipt of comments by the Division of Coastal Management, corrections were made and the plan was submitted to the Board of Aldermen for adoption on July 2, 2009 and the Coastal Resource Commission for certification.

The plan contains a summary of existing and emerging conditions, an existing land use map, a land suitability analysis and map, policies and implementing actions a future land use map. A citizen participation plan was adopted at the outset of the project to ensure continuing opportunities for public involvement. The final plan satisfies CAMA planning requirements as set forth in 15A NCAC 7B planning requirements.

2. Unified Development Ordinance

The Board of Aldermen adopted the Unified Development Ordinance (UDO) on November 2, 2011. The purpose of the UDO is to lessen congestion in the streets; to secure safety from fire, panic, and other dangers; to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to facilitate the adequate provisions of transportation, sewerage, schools, parks and other public requirements; to conserve the value of buildings and encourage the most appropriate use of land throughout the corporate area.

3. Building Codes and Inspections

The Town of North Topsail Beach has adopted the International Building Code, which provides many legislated requirements (tie-downs, straps, etc.) for protecting buildings that must be installed during the initial construction.

4. Soil Erosion and Sedimentation Control ordinance

The Soil Erosion and Sedimentation Control is controlled and regulated by the State, which provides for the protection of channels and prevents the decrease in stream capacity, further reducing the chance for flooding. This is a State ordinance enforced by the Town staff.

5. Flood Damage Prevention Ordinance

The Flood Damage Prevention Ordinance is contained in the UDO. The purpose of the Flood Damage Prevention Ordinance is to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

- a. Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;
- b. Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
- c. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;
- d. Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and
- e. Prevent or regulate the construction of flood barriers that will unnaturally divert floodwaters or which may increase flood hazards to other lands.

6. NFIP and Community Rating System (CRS)

The NFIP and Community Rating System (CRS) program provides the opportunity for the community to decrease individual flood insurance premiums through a series of steps that the government is willing to take. This is a voluntary program approved and adopted by the Town Board.

B. Jurisdictional Capability

1. Legal

As described in the Town Code of Ordinances and in NC General Statute 160A-147, North Topsail Beach has a Council-Manager form of government. Currently, the Town has five Aldermen and the Mayor, serving four-year terms.

2. Fiscal

History has shown that the approval process is difficult. To date, the Town has received Hazard Mitigation funding only once. As a result, the Town relies on local funds for hazard mitigation, but will continue to pursue funding through available grant programs.

3. Political

At the regular municipal election held in 1990, the three (3) candidates who received the highest number of votes were elected for four-year terms, while the two (2) candidates who received the next highest number of votes were elected for two-year terms. Beginning at the regular municipal election held in 1991, and every four (4) years thereafter, two (2) members of the board of aldermen are elected to serve for four-year terms. Beginning at the regular municipal election held in 1993, and every four (4) years thereafter, three (3) members of the board of aldermen are elected to serve for four-year terms. The mayoral election is every two (2) years.

The Board of Aldermen meets at 6:30 p.m. on the first Thursday of each month at 2008 Loggerhead Ct, North Topsail Beach. The Board hears general public comments at the beginning and end of the meeting during the designated public comment period.

4. Technical

The Town has the technical ability to develop the necessary ordinances, regulations or amend existing ordinances and policies to meet the needs of hazard mitigation.

5. Institutional

The Town has the professional staff and the ability to hire consultants to accomplish required hazard mitigation tasks.

C. Analysis of Capability

After gathering the preceding capability information, the data was analyzed and evaluated. The data identifies current opportunities and weaknesses. The analyzed and evaluated data provided the framework for developing the Town's recommendations for specific mitigation actions.

[Worksheet #5 – Community Goals – Town of North Topsail Beach](#) provides a summary of the Town's existing policies, programs, and their effectiveness at mitigating natural hazards. This assessment shows that the Town is committed to hazard mitigation.

An acceptability assessment is a useful analytical step to prioritize and focus limited resources on the most critical mitigation needs. The review of natural hazards and the Town's resources, a determination of risk acceptability may be made. Local mitigation efforts may be focused on critical areas, thus making the most of limited financial personnel, and material resources.

**WORKSHEET #5: COMMUNITY CAPABILITY ASSESSMENT
TOWN OF NORTH TOPSAIL BEACH**

Policies and Programs (e.g. Zoning Ordinance)	Policy/ Program Status (e.g. Potential or Existing Policy/ Program)	Document Reference (e.g. Comprehensive Plan and page number)	Effectiveness of Mitigation (e.g. Low, Medium, High)	Rationale for Effectiveness (e.g. Low, because allows development in flood plain)	Recommendations for Incorporating Into Hazard Mitigation Strategy (e.g. Amend ordinance to restrict development in floodplain, page III-4 of plan)
CAMA Land Use Plan (Manmade Hazards)	Existing	NTB 1999 Land Use Plan pg IV-4 HM Plan pg 75	High	Restricts the placement of bulk fuel storage facilities in NTB	Continue to enforce State standards
NTB CAMA Land Use Plan (Estuarine waters & shoreline)	Existing	NTB 1999 Land Use Plan pg IV-7 and HM Plan pg 75	High	High, because it limits the amount of structure and an area for flood waters without causing damage to property	Continue to enforce State standards and NTB standards
NTB CAMA Land Use Plan (Outstanding Resource Waters)	Existing	NTB Land Use Plan pg IV-8 and HM Plan pg 75	High	Limits the impervious coverage for each parcel thereby limiting storm water run-off	Continue to enforce State standards and NTB standards
NTB CAMA Land Use Plan (Ocean & Inlet Hazard Areas)	Existing	NTB Land Use Plan pg IV-5 and HM Plan 76	High	Restricts dune disturbance and restricts inlet hazard areas to single family only	Continue to enforce State standards and NTB standards

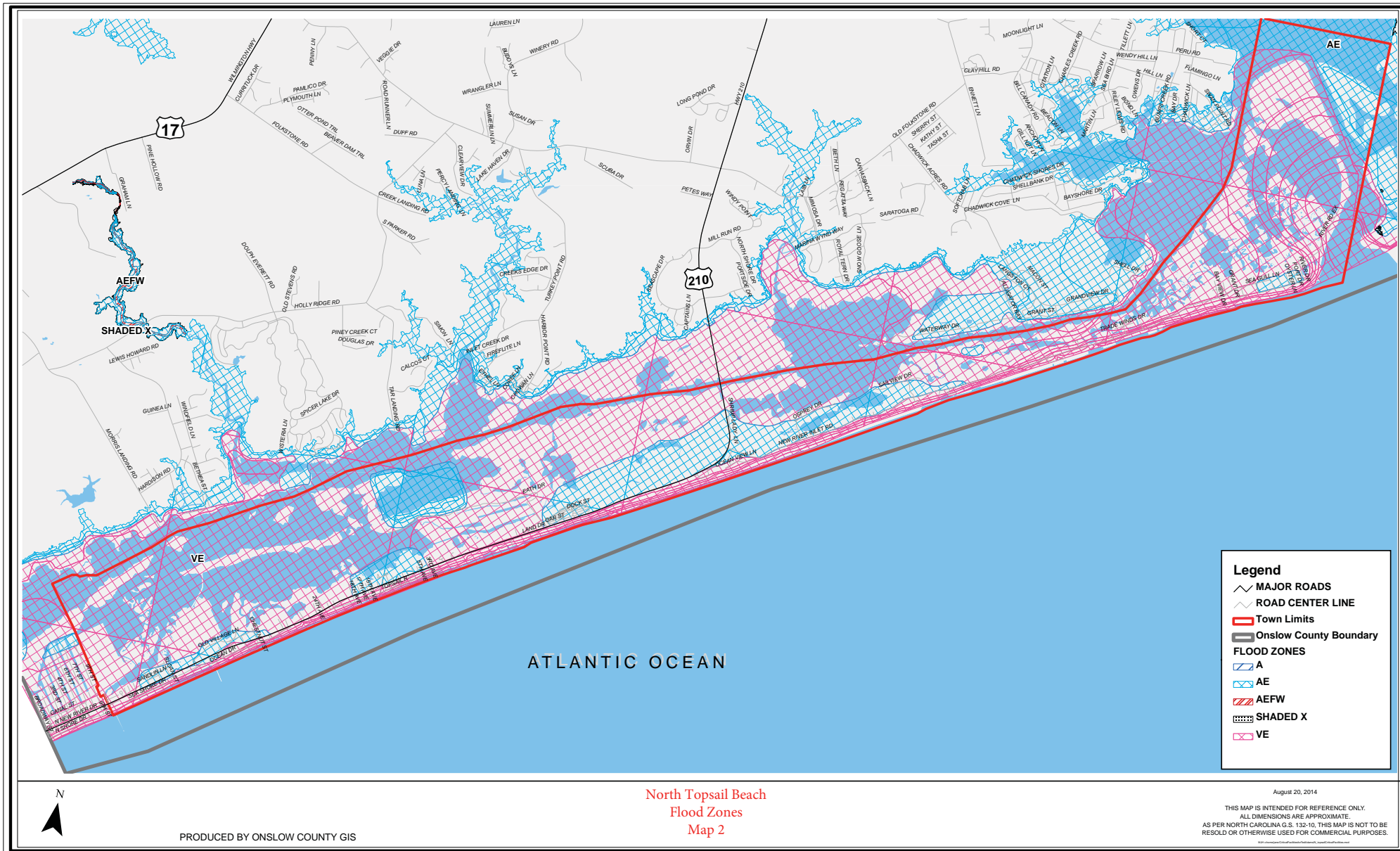
Worksheet #5: Community Capability Assessment Town of North Topsail Beach - Cont:

Policies and Programs (e.g. Zoning Ordinance)	Policy/ Program Status (e.g. Potential or Existing Policy/ Program)	Document Reference (e.g. Comprehensive Plan and page number)	Effectiveness of Mitigation (e.g. Low, Medium, High)	Rationale for Effectiveness (e.g. Low, because allows development in flood plain)	Recommendations for Incorporating Into Hazard Mitigation Strategy (e.g. Amend ordinance to restrict development in floodplain, page III-4 of plan)
Building Codes and Inspection Worksheet #3	Existing	North Carolina Building Codes	High	Structures damaged more than 50% will come in to new standards	Continue to enforce State standards
NTB Zoning Ordinance	Existing	Section 7-129	High	Restricts structure to 48 feet in height	Continue to enforce NTB standards
NTB Flood Damage Prevention Ordinance	Existing	Flood Damage Prevention Ordinance Page 18	High	Requires an additional 2 foot freeboard	Continue to enforce NTB standards
NTB Flood Damage Prevention Ordinance	Existing	Flood Damage Prevention Ordinance page	High	Requires all new construction or elevated buildings to be built to VE Zones construction standards	Continue to enforce NTB standards
Beach Nourishment Project	Existing	Army Corps of Engineers	High	Add depth to beach and possible relocation of structure	Continue to be active in the project

Worksheet #5: Community Capability Assessment Town of North Topsail Beach - Cont:

Policies and Programs (e.g. Zoning Ordinance)	Policy/ Program Status (e.g. Potential or Existing Policy/ Program)	Document Reference (e.g. Comprehensive Plan and page number)	Effectiveness of Mitigation (e.g. Low, Medium, High)	Rationale for Effectiveness (e.g. Low, because allows development in flood plain)	Recommendations for Incorporating Into Hazard Mitigation Strategy (e.g. Amend ordinance to restrict development in floodplain, page III-4 of plan)
CAMA Program	Existing	NCAC 15	High	Requires setback for ocean front structures	Continue to enforce State requirements
NFIP and Community Rating System	Existing	NFIP Program	High		Continue to enforce State requirements





Legend

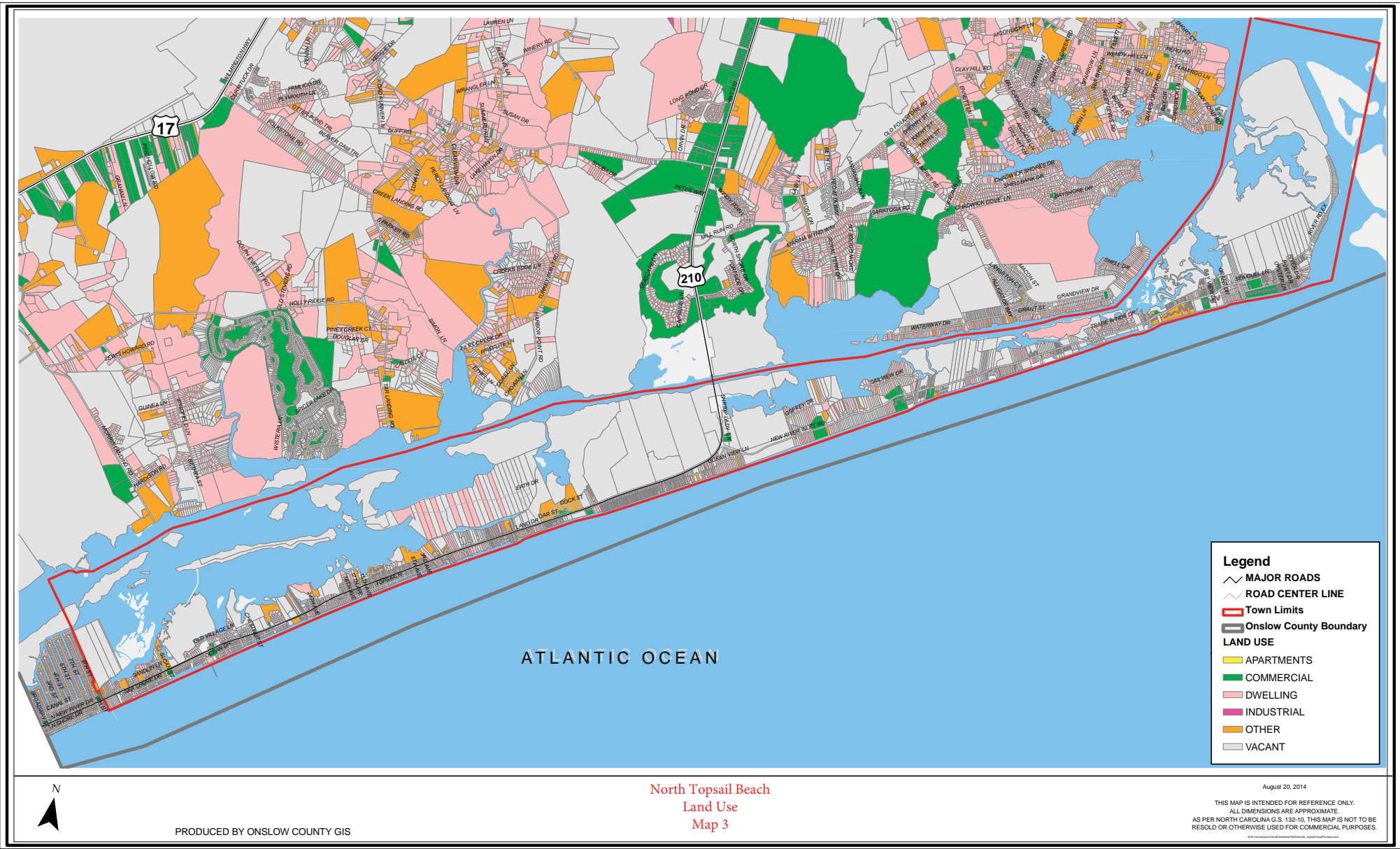
- MAJOR ROADS
- ROAD CENTER LINE
- Town Limits
- Onslow County Boundary
- FLOOD ZONES**
- A
- AE
- AEFW
- SHADED X
- VE

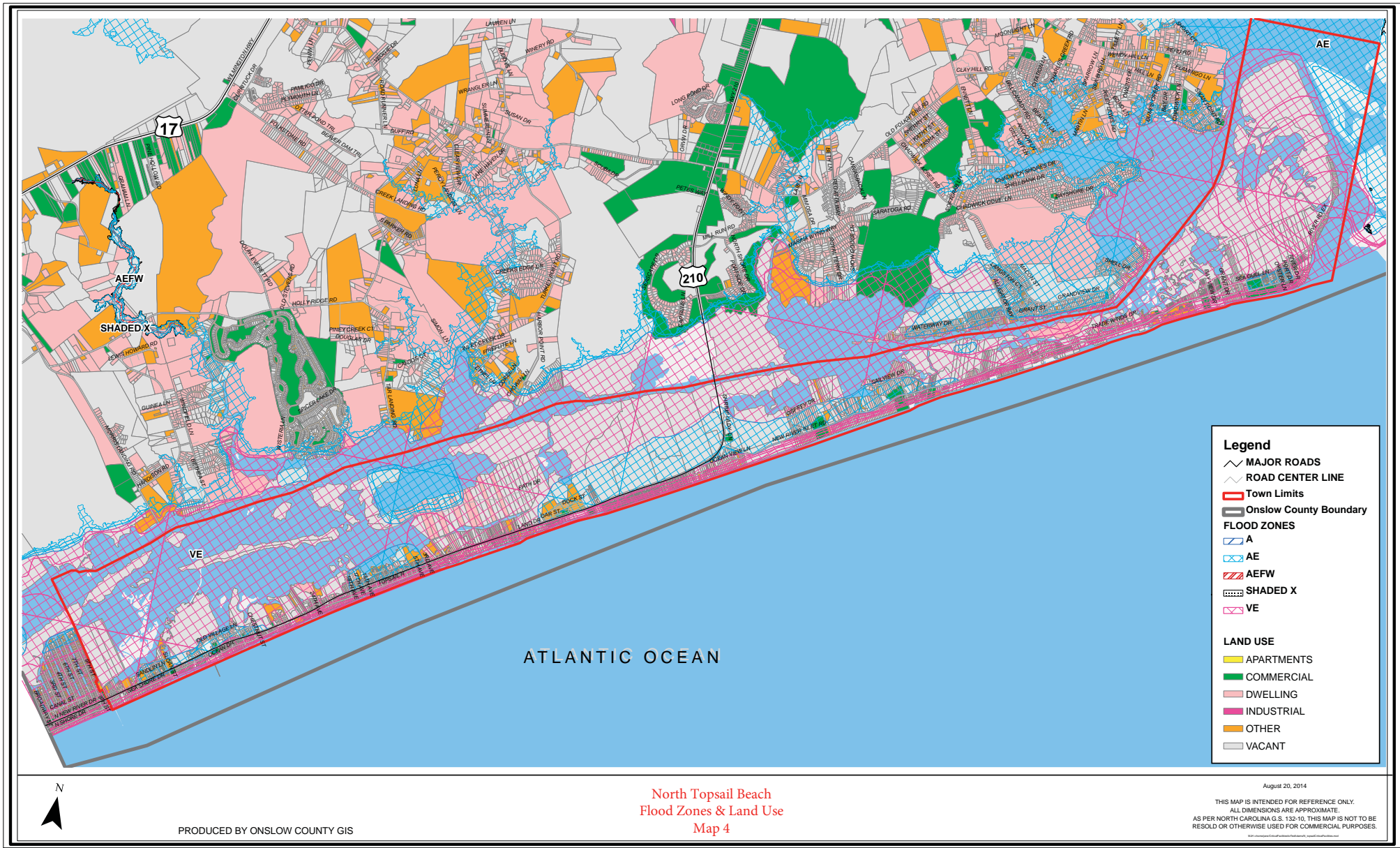


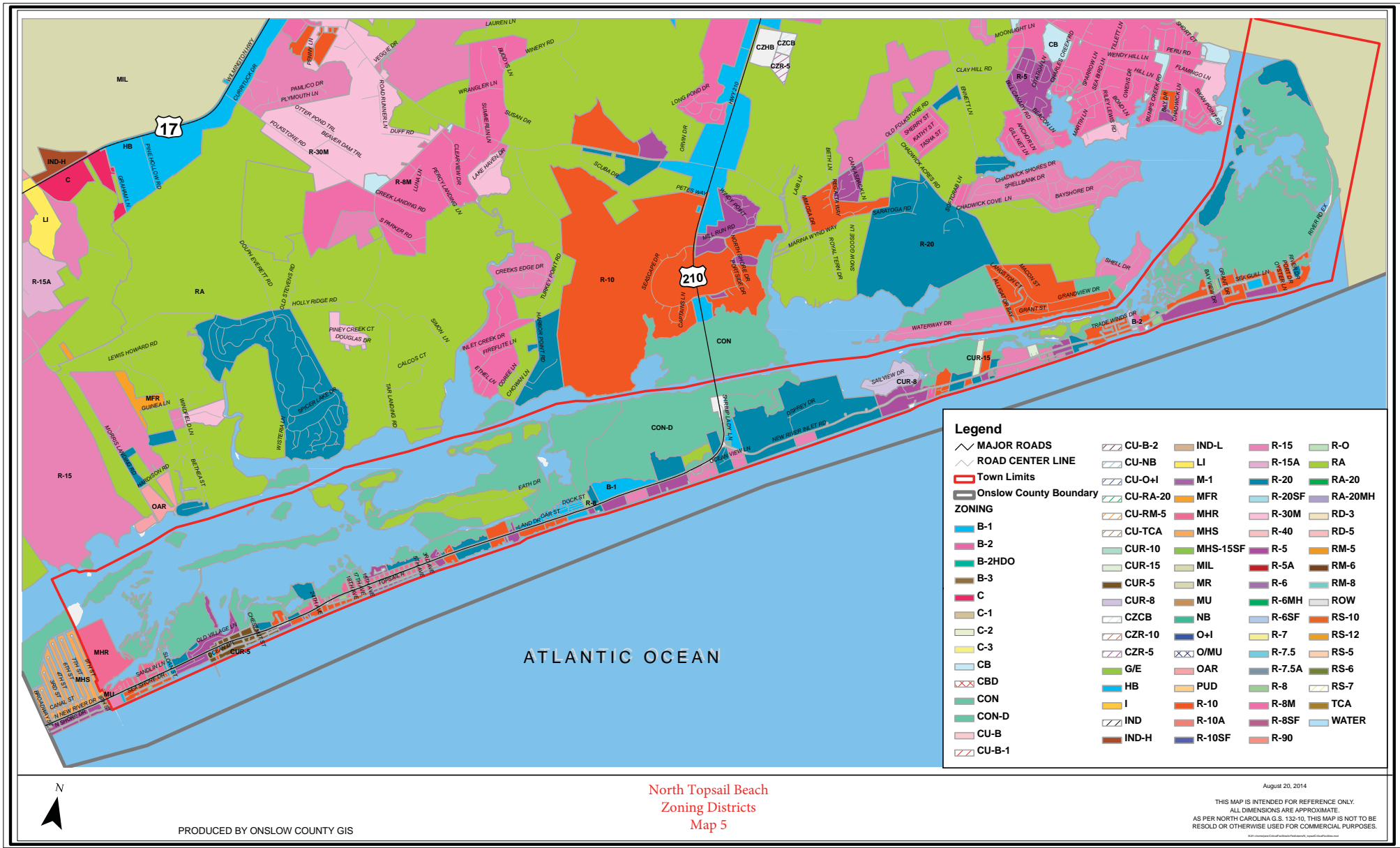
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North Topsail Beach
Flood Zones
Map 2

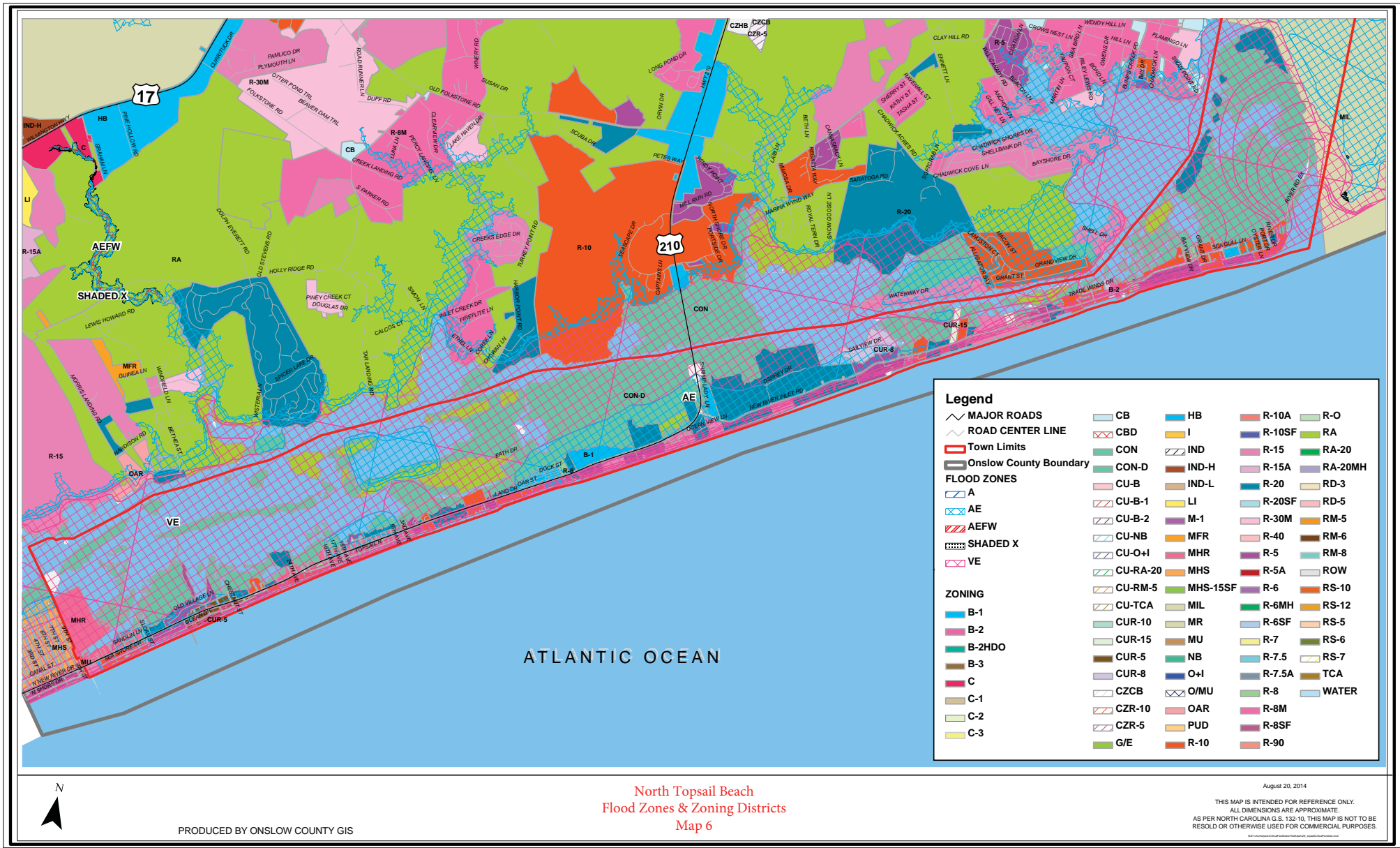
August 20, 2014
THIS MAP IS INTENDED FOR REFERENCE ONLY.
ALL DIMENSIONS ARE APPROXIMATE.
AS PER NORTH CAROLINA G.S. 132-10, THIS MAP IS NOT TO BE
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North Topsail Beach
 Zoning Districts
 Map 5



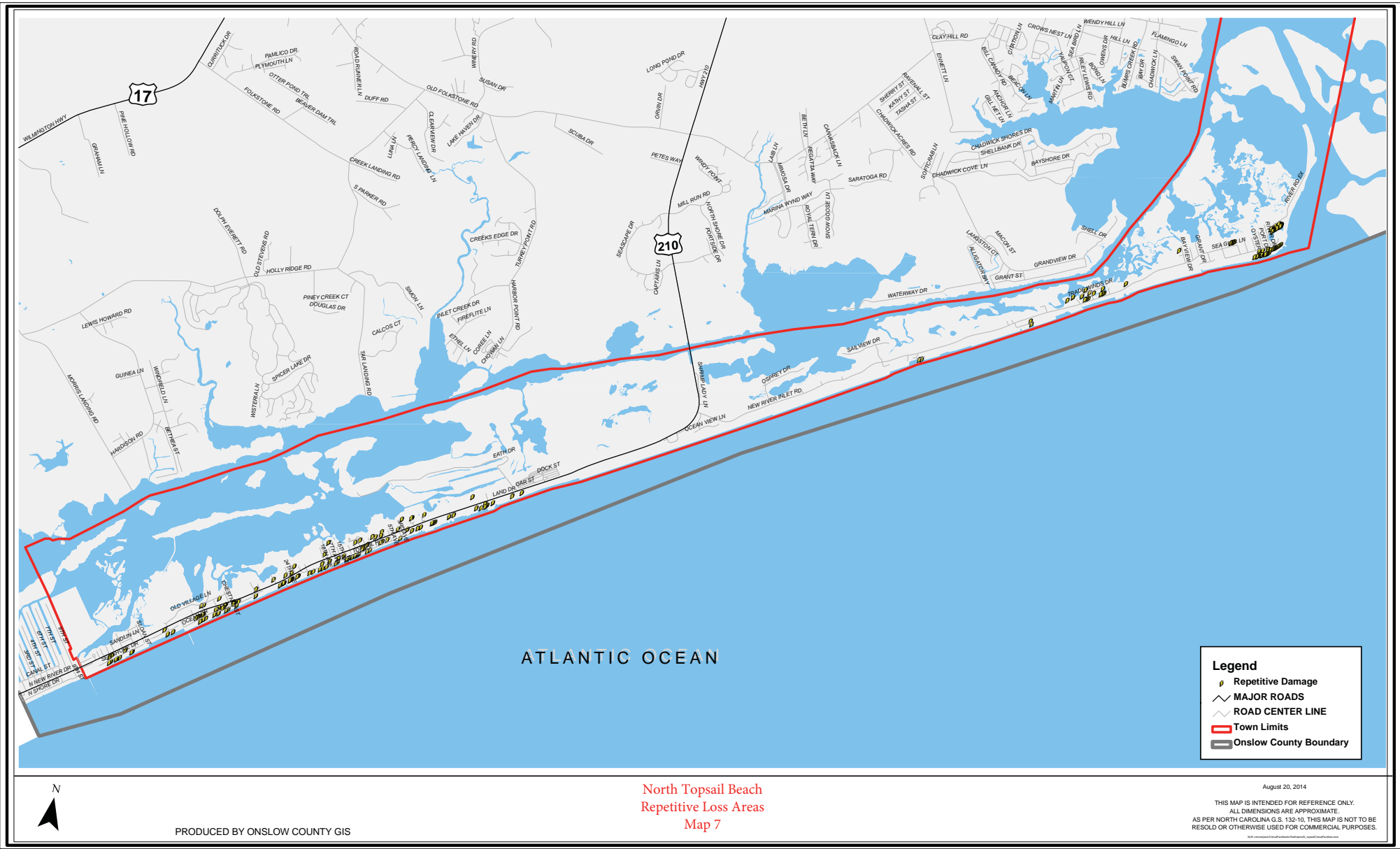
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MAJOR ROADS	CB	HB	R-10A	R-O
ROAD CENTER LINE	CBD	I	R-10SF	RA
Town Limits	CON	IND	R-15	RA-20
Onslow County Boundary	CON-D	IND-H	R-15A	RA-20MH
FLOOD ZONES	CU-B	IND-L	R-20	RD-3
A	CU-B-1	LI	R-20SF	RD-5
AE	CU-B-2	M-1	R-30M	RM-5
AEFW	CU-NB	MFR	R-40	RM-6
SHADED X	CU-O+I	MHR	R-5	RM-8
VE	CU-RA-20	MHS	R-5A	ROW
ZONING	CU-RM-5	MHS-15SF	R-6	RS-10
B-1	CU-TCA	MIL	R-6MH	RS-12
B-2	CUR-10	MR	R-6SF	RS-5
B-2HDO	CUR-15	MU	R-7	RS-6
B-3	CUR-5	NB	R-7.5	RS-7
C	CUR-8	O+I	R-7.5A	TCA
C-1	CZCB	O/MU	R-8	WATER
C-2	CZR-10	OAR	R-8M	
C-3	CZR-5	PUD	R-8SF	
	G/E	R-10	R-90	

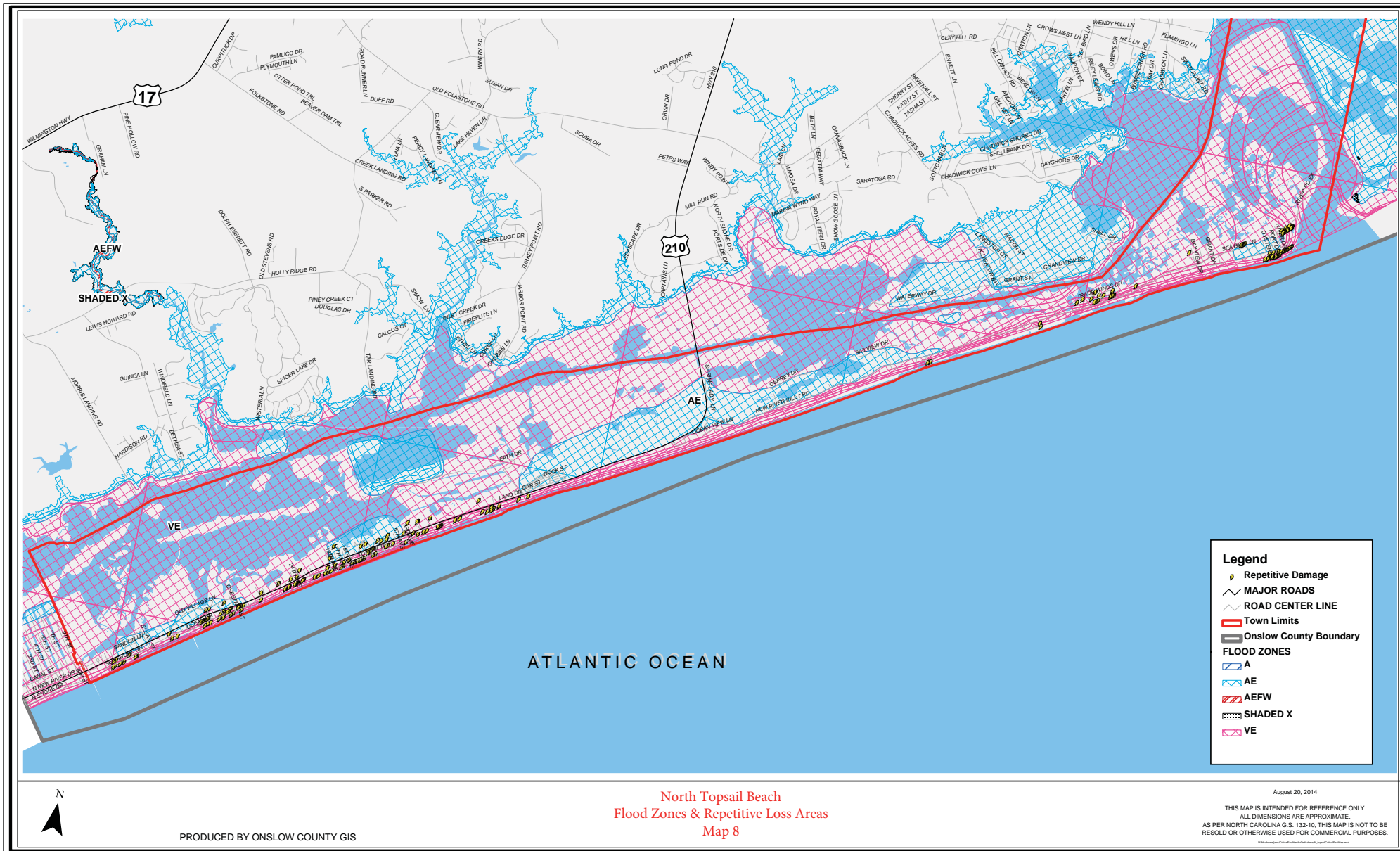
North Topsail Beach
Flood Zones & Zoning Districts
Map 6

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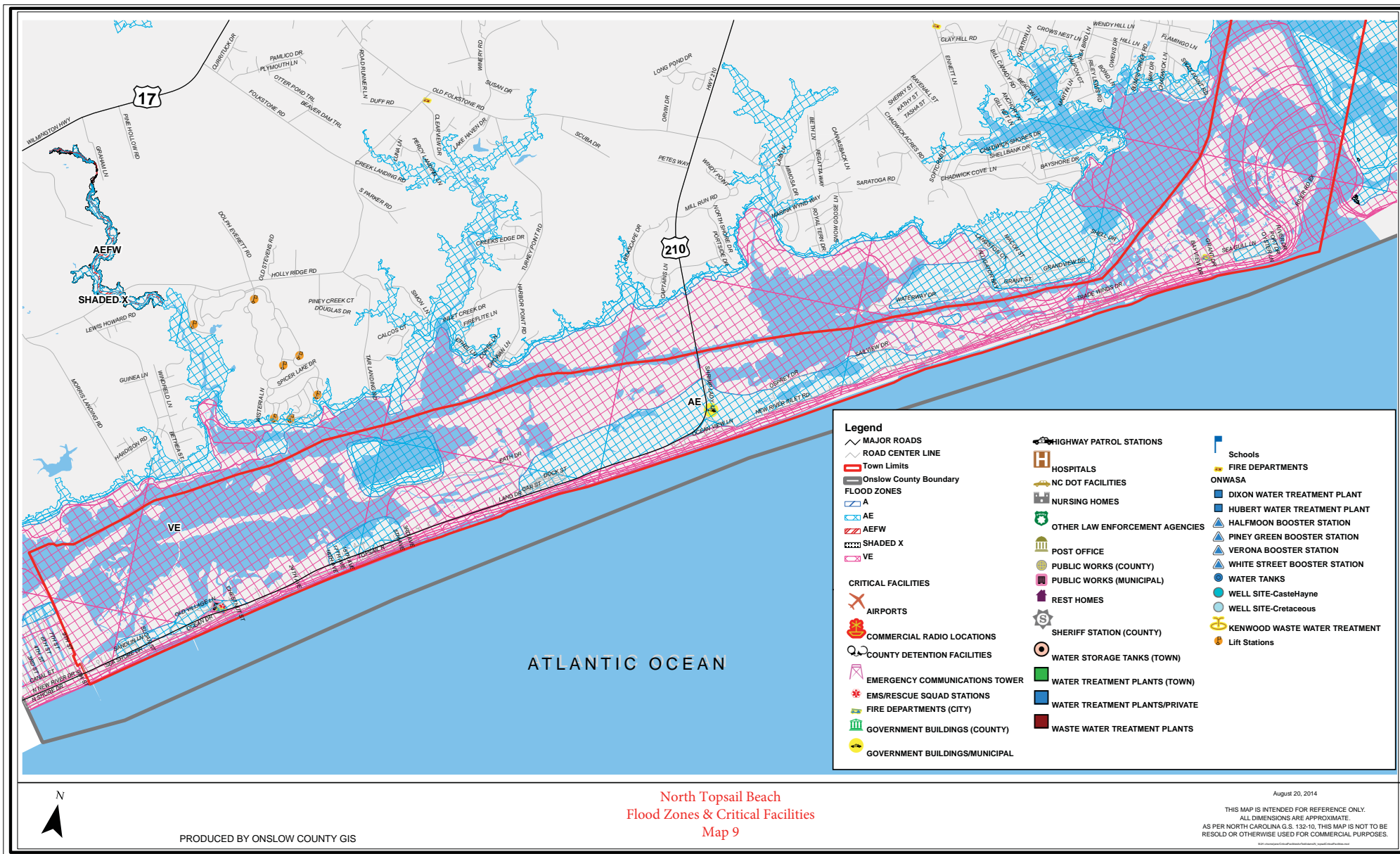
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Annex 3-43



North Topsail Beach
Flood Zones & Repetitive Loss Areas
Map 8

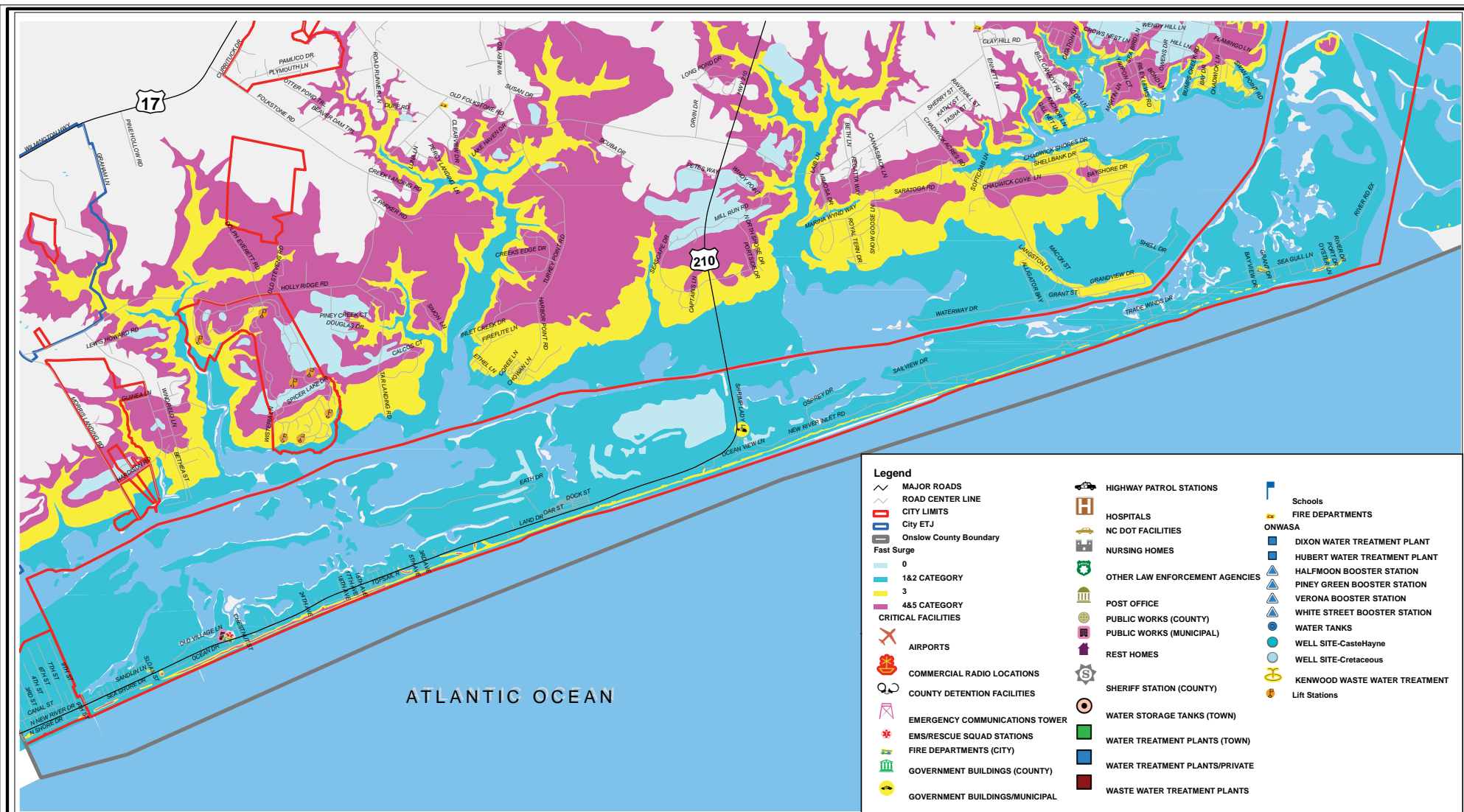


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North Topsail Beach
Flood Zones & Critical Facilities
Map 9

August 20, 2014
THIS MAP IS INTENDED FOR REFERENCE ONLY.
ALL DIMENSIONS ARE APPROXIMATE.
AS PER NORTH CAROLINA G.S. 132-10, THIS MAP IS NOT TO BE
RESOLD OR OTHERWISE USED FOR COMMERCIAL PURPOSES.

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ATLANTIC OCEAN

- Legend**
- MAJOR ROADS
 - ROAD CENTER LINE
 - CITY LIMITS
 - City ETJ
 - Onslow County Boundary
 - Fast Surge
 - 0
 - 1&2 CATEGORY
 - 3
 - 4&5 CATEGORY
 - CRITICAL FACILITIES
 - AIRPORTS
 - COMMERCIAL RADIO LOCATIONS
 - COUNTY DETENTION FACILITIES
 - EMERGENCY COMMUNICATIONS TOWER
 - EMS/RESCUE SQUAD STATIONS
 - FIRE DEPARTMENTS (CITY)
 - GOVERNMENT BUILDINGS (COUNTY)
 - GOVERNMENT BUILDINGS/MUNICIPAL
 - HIGHWAY PATROL STATIONS
 - HOSPITALS
 - NC DOT FACILITIES
 - NURSING HOMES
 - OTHER LAW ENFORCEMENT AGENCIES
 - POST OFFICE
 - PUBLIC WORKS (COUNTY)
 - PUBLIC WORKS (MUNICIPAL)
 - REST HOMES
 - SHERIFF STATION (COUNTY)
 - WATER STORAGE TANKS (TOWN)
 - WATER TREATMENT PLANTS (TOWN)
 - WATER TREATMENT PLANTS/PRIVATE
 - WASTE WATER TREATMENT PLANTS
 - Schools
 - FIRE DEPARTMENTS
 - ONWASA
 - DIXON WATER TREATMENT PLANT
 - HUBERT WATER TREATMENT PLANT
 - HALFMOON BOOSTER STATION
 - PINEY GREEN BOOSTER STATION
 - VERONA BOOSTER STATION
 - WHITE STREET BOOSTER STATION
 - WATER TANKS
 - WELL SITE-CasteHayne
 - WELL SITE-Cretaceous
 - KENWOOD WASTE WATER TREATMENT Lift Stations



PRODUCED BY ONSLOW COUNTY GIS

North Topsail Beach
 SLOSH Map (fast moving) & Critical Facilities
 Map 10

JULY 22, 2014
 THIS MAP IS INTENDED FOR REFERENCE ONLY.
 ALL DIMENSIONS ARE APPROXIMATE.
 AS PER NORTH CAROLINA G.S. 132-10, THIS MAP IS NOT TO BE
 RESOLD OR OTHERWISE USED FOR COMMERCIAL PURPOSES.

ATTACHMENT 1: PUBLIC INFORMATION MEETINGS

The Town of North Topsail Beach conducted a Public Information Meeting on the Onslow County Multi-Jurisdictional Hazard Mitigation Plan – ANNEX III Town of North Topsail Beach at Town Hall on October 2, 2014. The meeting was advertised in the Jacksonville Daily News, a notice was posted at Town Hall, on Facebook and on the Town's website.

ATTACHMENT 2: PUBLIC NOTICE

Notice of Public Hearing
Town of North Topsail Beach
Board of Aldermen
Thursday, September 4, 2014 6:30 p.m.

Notice is given that a regular meeting of the North Topsail Beach Board of Aldermen is to be held on Thursday, September 4, 2014 6:30 p.m. in the conference room at Town Hall, 2008 Loggerhead Court, North Topsail Beach, NC. A public hearing will be conducted to receive input on Onslow County Multi-Jurisdictional Hazard Mitigation Plan – ANNEX III Town of North Topsail Beach. All information pertaining to these public hearings may be viewed at the Town Hall, Monday through Friday between the hours of 8:00 am and 5:00 pm. All property owners and interested citizens are encouraged to attend and will be given an opportunity to be heard at these meetings. For additional information, please contact:

Deborah J. Hill MPA AICP CFM CZO
Planning Director
Town of North Topsail Beach
2008 Loggerhead Court
North Topsail Beach, NC 28460
(910) 328-1349 ext. 27

ATTACHMENT 3: ROSTER OF ATTENDEES

HAZARD MITIGATION PUBLIC INFORMATION MEETING
TOWN OF NORTH TOPSAIL BEACH
NORTH TOPSAIL BEACH TOWN HALL
OCTOBER 2, 2014

NAME	ADDRESS
Sue Tuman	3944 River Road NTB
CHARLES MEYERS	2224 NEW RIVER INLET ROAD NTB
Jeanine Meyers	2224 New River Inlet Rd, #140, NTB
John Swofford	2174 NEW RIVER Inlet RD 285
Jeremy Grove	2210 New River Inlet Rd 251
Ed CRAMER	4021 Island Drive, Rogers Bay
Cathy Gallo	2307 NRIR NTB
Nancy Bass	
Webb & Larry Leeson	2304 N. River Inlet Rd NTB
MARYANN & Jerry Heid	2310-2 NRIR, NTB
Markus Lang	4110 Island Dr. #306 NTB
Allan + MARYLYN JOHNSON	2174 New River INLET RD 190
Connie Pheth	200 Oyster Ln, NTB, NC 28546
Hanna McCloud	1835 NRIR, NTB
Bob Swartek	3772 Island Dr. NTB
DON MARTIN	207 OYSTER LA. NTB
Tenley Grazioli	143 Shellbank Dr., Sneads Ferry
RAFAEL LAUDIZAU	510A STOPSAIL DR Surf City, NC

ATTACHMENT 4: TOWN OF NORTH TOPSAIL BEACH OC MJ-HMP APPROVAL AND ADOPTION

Town of North Topsail Beach

Daniel Tuman, Mayor
Suzanne Gray, Mayor Pro Tem
Aldermen:
Don Harte
Tom Leonard
Richard Macartney
Michael Yawn



Stuart Turille
Town Manager
Carin Z. Faulkner, MPA
Town Clerk

October 8, 2014

Stacie Miles, Deputy Director
Onslow County Emergency Services
1180 Commons Dr., N.
Jacksonville NC 28540

Dear Stacie,

The Town of North Topsail Beach has actively participated in the planning process of updating the North Topsail Beach Annex to the Multi-Jurisdictional Onslow County Hazard Mitigation Plan, and we believe that we have fulfilled all of the plan criteria as required by FEMA.

At this time, we are approving the plan for submittal to NCDEM and FEMA for adoption. Following their adoption, the Town Board of Aldermen will adopt the plan in its entirety.

Please contact me with any questions.

Sincerely,

A handwritten signature in blue ink that reads 'Stuart Turille'.

Stuart Turille