



Resilience Planning Grant R2106

City of Neptune Beach Initial Public Outreach Workshop

December 10, 2020

FOR THE

#GATORGOOD

Gerald Murphy, JD, AICP, CFM

Faculty Consultant, Program for Resource Efficient Communities

Project Objectives:

Parcel-level analysis of housing structure and flood hazard vulnerabilities within the City.

Workshops to present vulnerability assessment results and implications.

Public participation by gathering comments and reactions.

Summary report of vulnerability assessment methods and evaluation activities.

Project Overview:

**1. STATUTORY BACKGROUND /
VULNERABILITY ASSESSMENT**

**2. POLICY ALIGNMENT AND ASSESSMENT
PRESENTATION WORKSHOPS**

**3. FINAL PROJECT ASSESSMENT AND
REPORT**

Vulnerability Assessment

Goal: Identify and delineate areas and populations vulnerable to flood hazards within the City.

1. Initial public outreach workshop—Review:

- **Primacy of the Comprehensive Plan**
- **Florida Statutory Requirements (“Peril of Flood”)**
- **Local Policy Tools—Drivers of responsibility for advancement and implementation**

2. Compile and integrate hazard/inundation data of existing and anticipated future conditions, social vulnerability, and physical (infrastructure) vulnerability

Presentation Workshops

Goal: Inform and engage the community in flood hazard vulnerability issues, potential mitigation actions, resilience considerations, and gather feedback on potential policies to address “Peril of Flood” legislation compliance.

1. Draft Policy Language.

2. Workshops

- Results of vulnerability assessment
- Gather feedback on potential policy language
- Outline next steps to improve community resilience

Final Project Assessment and Report

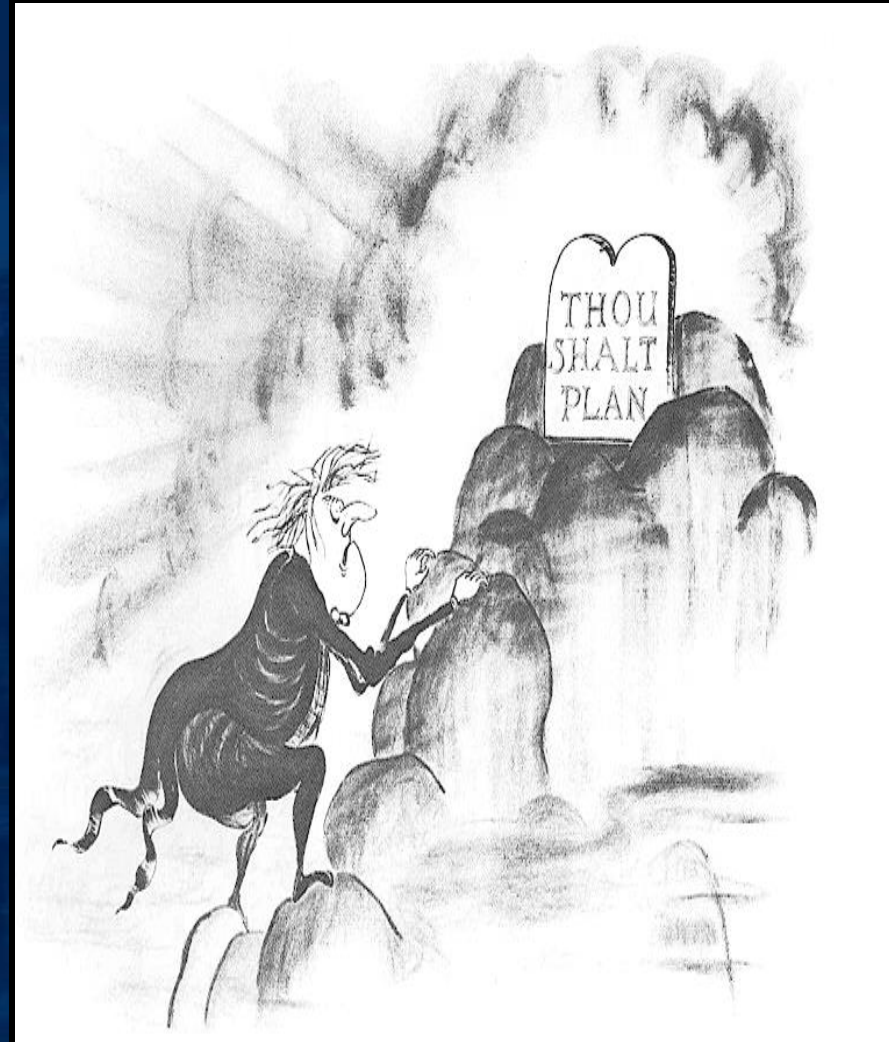
Goal: Summarize findings—

- 1. Vulnerability assessment;**
- 2. Community engagement process;**
- 3. Draft policy language; and**
- 4. Alignment among the three (3) barrier island communities.**

The Community Planning Act

§163.3167(2)

Scope of the Act – Each local government **shall maintain a comprehensive plan**



Primacy of the Comprehensive Plan

Comprehensive Plan is *Legislative*

- All development ... and all actions taken by government in regard to development orders ... shall be consistent with such Plan.
- All land development regulations ... shall be consistent with the Plan.
- Local Planning Agency must review land development regulations for consistency with the Plan.

Elements of the Comprehensive Plan

Section 163.3177 F.S. defines the required elements of a Comprehensive Plan.

1. Capital Improvement Element
2. Intergovernmental Coordination Element
3. Future Land Use Element
4. Transportation Element
5. Infrastructure Element
6. **Conservation Element**
7. Recreation and Open Space Element
8. Housing Element
9. **Coastal Management Element**

- Optional elements
- For further details on the requirements of each element, see F.S. subsections 163.3177(3)(a) – 163.3177(h).3.b.

Common Components of the Comprehensive Plan

Two basic aspects to Comprehensive Plan elements:

- 1. Data and analysis:** shows where community is and where it's heading in the future regarding population, infrastructure, and resources.
- 2. Goals, objectives and policies:** plan for dealing with these changes in population and infrastructure needs, while maintaining resources.

Data and Analysis

- Information, Maps, Tables, related to the community's present and future population, infrastructure, and resources.
- Required to be from reliable sources or created in-house using accepted methodologies
- Common sources include U.S. Census Bureau, University of Florida's Bureau of Economic and Business Research (BEBR) or Shimberg Center for Housing Studies

Goals, Objectives, Policies, and Strategies

Goal: F.S. Subsection 163.3164(19), goal “means the long-term ends towards which programs or activities are ultimately directed”.

Objective: F.S. Subsection 163.3164(34), objective “means a specific, measuring, intermediate end that is achievable and marks progress towards a goal.”

Policies: F.S. Subsection 163.3164(37), policy “means the way in which programs and activities are conducted to achieve an identified goal”.

Strategies: (nd.) Activities and mechanisms for implementing the Comprehensive Plan policies. POLICY TOOLS

2015

“Peril of Flood” legislation

The 2015 Florida Legislature directed jurisdictions that have a **Coastal Management Element** as a part of their **Comprehensive Plan** to include a redevelopment component with principles that must be used to eliminate inappropriate and unsafe development in the coastal areas—when opportunities arise.

Section 163.3178(2)(f)1-6, Florida Statutes.

Peril of Flood—F.S. § 163.3178(2)(f) (2015)

(f) **A redevelopment component** ~~that which~~ outlines the principles that must ~~which shall~~ be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. The component must:

1. Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas . . . from . . . related impacts of sea-level rise.
2. Encourage . . . the removal of coastal real property from [FEMA] flood zone designations.
3. Site development techniques and best practices [to] reduce [flood] losses [and] flood insurance claims.
4. [C]onsistent with, or more stringent than, the Florida Building Code and [FEMA] flood regulations 44 C.F.R. part 60.
5. Construction seaward of the coastal construction control lines must be consistent with chapter 161.
6. Encourage local governments to participate in the NFIP CRS to achieve flood insurance premium discounts for their residents.

Vulnerability Assessment



Russ Watkins
Shimberg Center for
Housing Studies

Vulnerability Analysis Background

- Identify the infrastructure, land uses, and people who may be impacted by sea-level rise (SLR).
- Risk and vulnerability are often used interchangeably.

“The potential for loss of or harm/damage to exposed assets largely due to complex interactions among natural processes, land use decisions, and community resilience.” (NOAA, 2010)

City of Neptune Beach Community Resilience Planning

Vulnerability Analysis Results

Program for Resource Efficient Communities and

Shimberg Center for Housing Studies

University of Florida



Vulnerability Analysis Summary 1

- The following slides document the results of a vulnerability analysis conducted for Madeira Beach. The analysis expands upon minimum FDEP guidelines by considering flood hazards as well as sea level rise projections.
- Flood hazards include:
 - 100 and 500-year floodplains
 - High tide flooding
 - Storm surge frequency
- Social vulnerability based on Census demographics
- One area was identified as having higher than average flood hazard exposure. This area is considered a potential *focus area*, described by FDEP as candidates for development of specific vulnerability and resilience policy and program development.
- **For our hazard analysis, we're using standardized, widely accepted and used data from federal and state sources, that are well-documented.**

Vulnerability Analysis Summary 2

The following **general findings** are presented in more detail in the following sections of this Task #1 Summary Report:

- Flooding occurs from the Intracoastal Waterway in all scenarios and only rarely from the Atlantic Ocean in storm surge events;
- 2070 storm surge results in the greatest inundation, impacting over one third of the City of Neptune Beach;
- 2070 storm surge results in the most significant risk in terms of the assessed value of impacted structures;
- Consistent with the land use finding, residential accounts for most of the assessed value at risk in all of the scenarios;
- Road impacts pose the most significant infrastructure concerns from the *readily available* data, however sanitary sewer, stormwater, and other utilities should have a high probability of future flood hazard exposure;
- Flooding impacts on roadways are similar in extent to the impacts within the neighborhoods;
- Stormwater management is likely to be impacted due to the inability to achieve positive outfall discharge and as a result of saturated soils reducing percolation rates as water levels rise; and
- Utility plants do not appear to be impacted, but advancing exposure of the collection/distribution systems and other related system components to flood hazard will increase utility maintenance costs.

Flood Hazard Exposure Summary

Category	High Exposure	Medium Exposure	Low Exposure
Current Land Use	Condominiums	Condominiums	Condominiums, Hotels/Motels
Major Roads and Highways		Atlantic Blvd	Florida Blvd, Kings Rd, Penman Rd, 3rd St N, Atlantic Blvd
Critical Facilities			City Hall, Police Dept., Schools
Year Built	mid-80's; 2004; 2007	1974; 1980; 1987	late 30's; 50's to mid-60's; mid-70's to early 90's
Just Value (All parcels)	~\$41 mil	~\$61 mil	~\$1.2 tril

Vulnerability Analysis Background

- According to the ***Florida Adaptation Planning Guidebook*** (FDEP and NOAA, 2018, p. 19), a **vulnerability analysis** consists of measuring the impact of **sea level rise** and identifying the **people, infrastructure, and land uses** that may be affected. Vulnerability is often used interchangeably with risk when measuring hazard impacts. NOAA provides a useful definition of vulnerability that informs the follow-on actions described later in this chapter (NOAA, 2010): “The potential for loss of or harm/damage to exposed assets largely due to complex interactions among natural processes, land use decisions, and community resilience.”
- **Vulnerability** is defined in the context of this work as ***exposure to flood hazards and potential for damage from these same hazards***. Scoring is based on a simple geographic presence/absence analysis, i.e. each time a parcel is within a hazard zone it is assigned a value of 1 for that hazard. The overall vulnerability score is a sum of values, represented as none, low, medium, or high vulnerability. This simple, linear scheme, by design, facilitates the calculation of risk metrics by using weighting or probabilities, for example.
- A primary goal of this analysis is to identify Focus Areas, with high exposure to flood hazards. Typically defined as areas where ***critical facilities or infrastructure are located and/or where the highest affected population resides*** (FDEP and NOAA, 2018, p.24).
- The UF team vulnerability analysis includes 2 components: 1) **summary report of findings**, and 2) a **Flood Hazard Vulnerability app**. This is a browser-based tool for visualization of flood-related hazards and download of the tabular data created as part of the analysis.
- NOAA Office of Ocean and Coastal Resource Management. (2010). *Adapting to Climate Change: A Planning Guide for State Coastal Managers*. Silver Spring: National Oceanic and Atmospheric Administration.

Vulnerability Data Layers

- **Parcels** - The base data layer is “FLORIDA PARCEL DATA STATEWIDE – 2019”, obtained from FGDL (fgdl.org). Metadata for this layer can be found here: https://www.fgdl.org/metadata/fgdc_html/parcels_2019.fgdc.htm
- **FEMA DFIRMs** - Floodplain data is “FLOOD HAZARD ZONES OF THE DIGITAL FLOOD INSURANCE RATE MAP (DFIRM) IN THE STATE OF FLORIDA - NOVEMBER 2018”, obtained from FGDL (fgdl.org). Metadata for this layer can be found here: https://www.fgdl.org/metadataexplorer/full_metadata.jsp?docId=%7BE4C26645-C636-4E14-BDF9-26DA5AD4F41C%7D&loggedIn=false.
- **High Tide Flooding** - This data is derived from “coastal flood frequency” data layers obtained from NOAA Digital Coast (<https://coast.noaa.gov/slrdata/>).
- **Storm Surge** - Storm surge data were obtained from the NOAA National Hurricane Center, and depicts projected surge inundation based on SLOSH modeling and coastal digital elevation models (DEMs). The data and metadata can be found here: NOAA NHC v.2 2018; <https://www.nhc.noaa.gov/nationalsurge/>.
- **Sea Level Rise Projections** - 2040 and 2070 NOAA Intermediate High: <https://coast.noaa.gov/slrdata/>
- **SoVI data for analysis** - sourced from VMAP and based on 2015 data. Measures the social vulnerability of populations to environmental hazards, and is based on a statistical analysis of Census demographics, including age, race, income, education, and related variables: <https://www.vulnerabilitymap.org/Mapping-Tools/Social-Vulnerability>

“High Tide Flooding”

Also referred to as “high tide”, “sunny day”, “king tide”, or “nuisance” flooding, it is classified by NOAA as “minor” tidal flooding (moderate and major flooding is typically considered by NOAA to be storm-driven). It occurs due to the effects of SLR on astronomical and seasonal cycles in mean sea level heights.

It is expressed as water height above the mean higher high water (MHHW) tidal datum (as are SLR projections).

(NOAA, 2018, PATTERNS AND PROJECTIONS OF HIGH TIDE FLOODING ALONG THE U.S. COASTLINE USING A COMMON IMPACT THRESHOLD, NOAA Technical Report NOS CO-OPS 086; https://tidesandcurrents.noaa.gov/publications/techrpt86_PaP_of_HTFlooding.pdf)

App data is sourced from NOAA *Flood Frequency* data (<https://coast.noaa.gov/slrdata/>)



SLR Projections

The App data was sourced from NOAA *Flood Frequency* data (<https://coast.noaa.gov/slrdata/>). We included NOAA 2017 Intermediate High projections for 2040 and 2070, based on the **Mayport** tide gauge, for consistency with **FEMA NFIP guidelines**, and surrounding Municipalities.

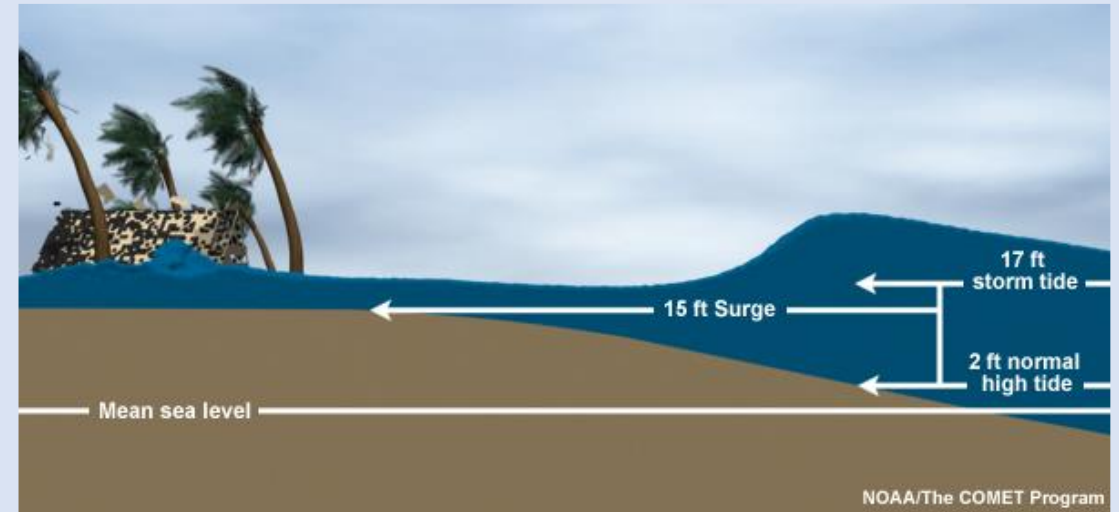
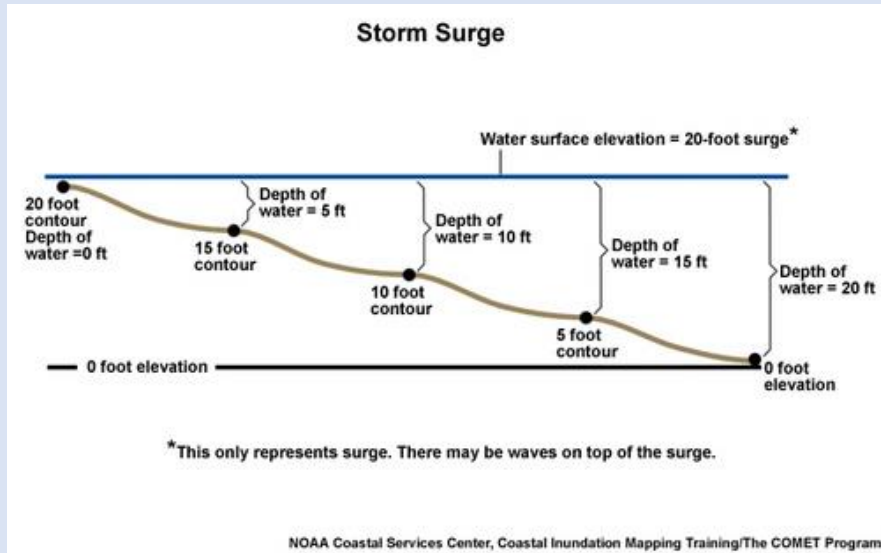
It should be noted that continuing evidence indicates that rates are accelerating faster than projected, and it is prudent to limit the time horizon of projections (<https://www.pacioos.hawaii.edu/shoreline/slr-hawaii/>;
https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf).



NASA current GMSL annual value = 3.3mm
<https://climate.nasa.gov/vital-signs/sea-level/>

NOAA 2017 projections are based on an annual value of 2.7mm

Storm Surge Background



Storm surge: *“the abnormal rise of water generated by a storm, over and above the astronomical tides”*.

National Storm Surge Hazard Maps - Version 2 (2018)

6 SLOSH curvilinear, polar, elliptical and hyperbolic telescoping mesh grids, created from tide gage observations and high water mark data, was used to create MEOWs and MOMs, representing max surge based on “up to 100,000 hypothetical storms”, referenced to high tide. The models don’t include rainfall, river flow, or wind-driven waves.

(<https://slosh.nws.noaa.gov/sloshPub/>). Grid cell resolution of ~625m, with 1-foot inundation depth bins (21 classes) ranging from 0 to >20-feet of depth. Accuracy estimates range from +/- 5 to 20%.

(<https://www.nhc.noaa.gov/nationalsurge/>)

Storm surge is an abnormal rise of water generated by a storm, over and above the predicted astronomical tide.

- It’s the change in the water level that is due to the presence of the storm
- Since storm surge is a difference between water levels, it does not have a reference level

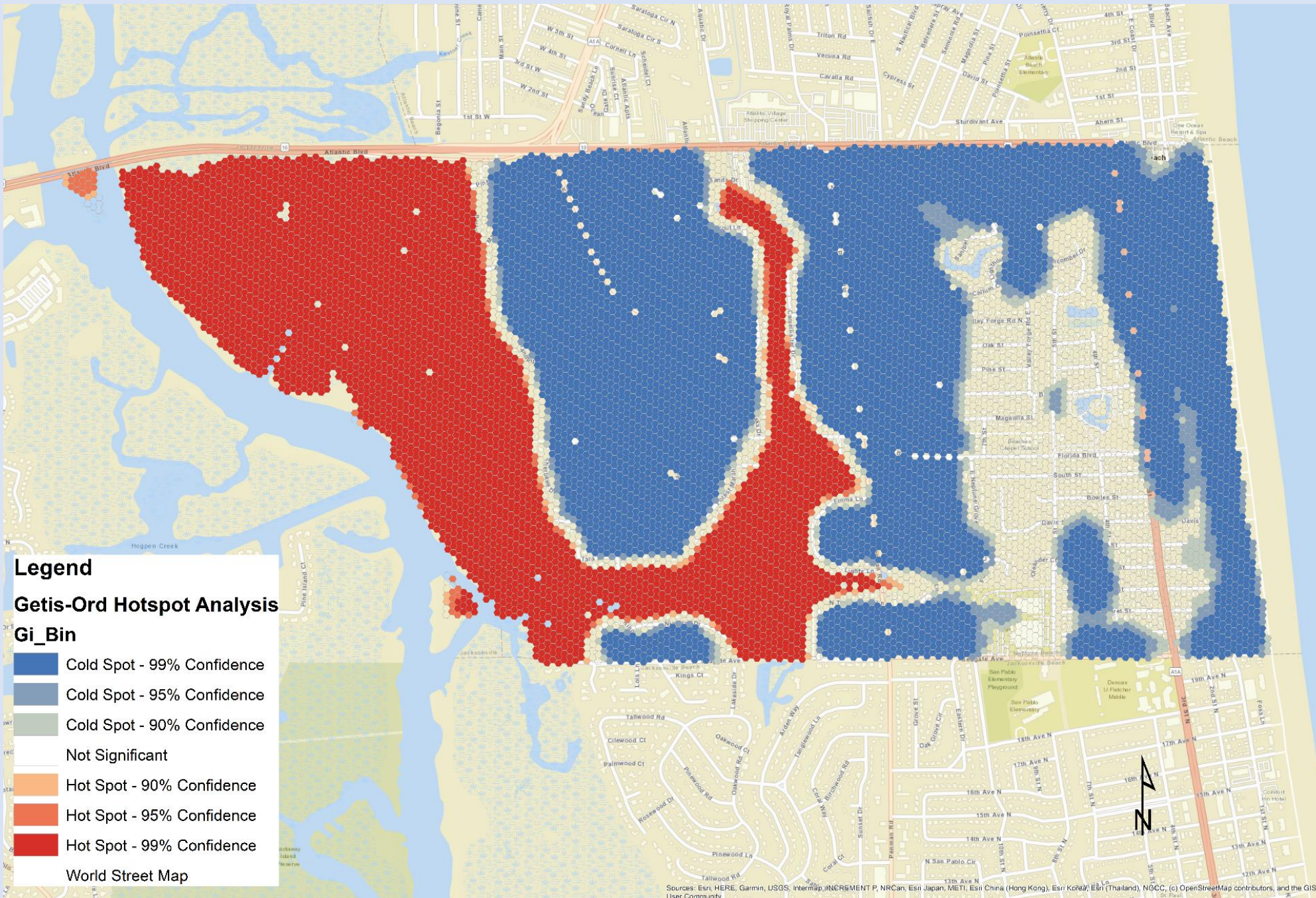
Storm tide is the water level rise during a storm due to the combination of storm surge and the astronomical tide.

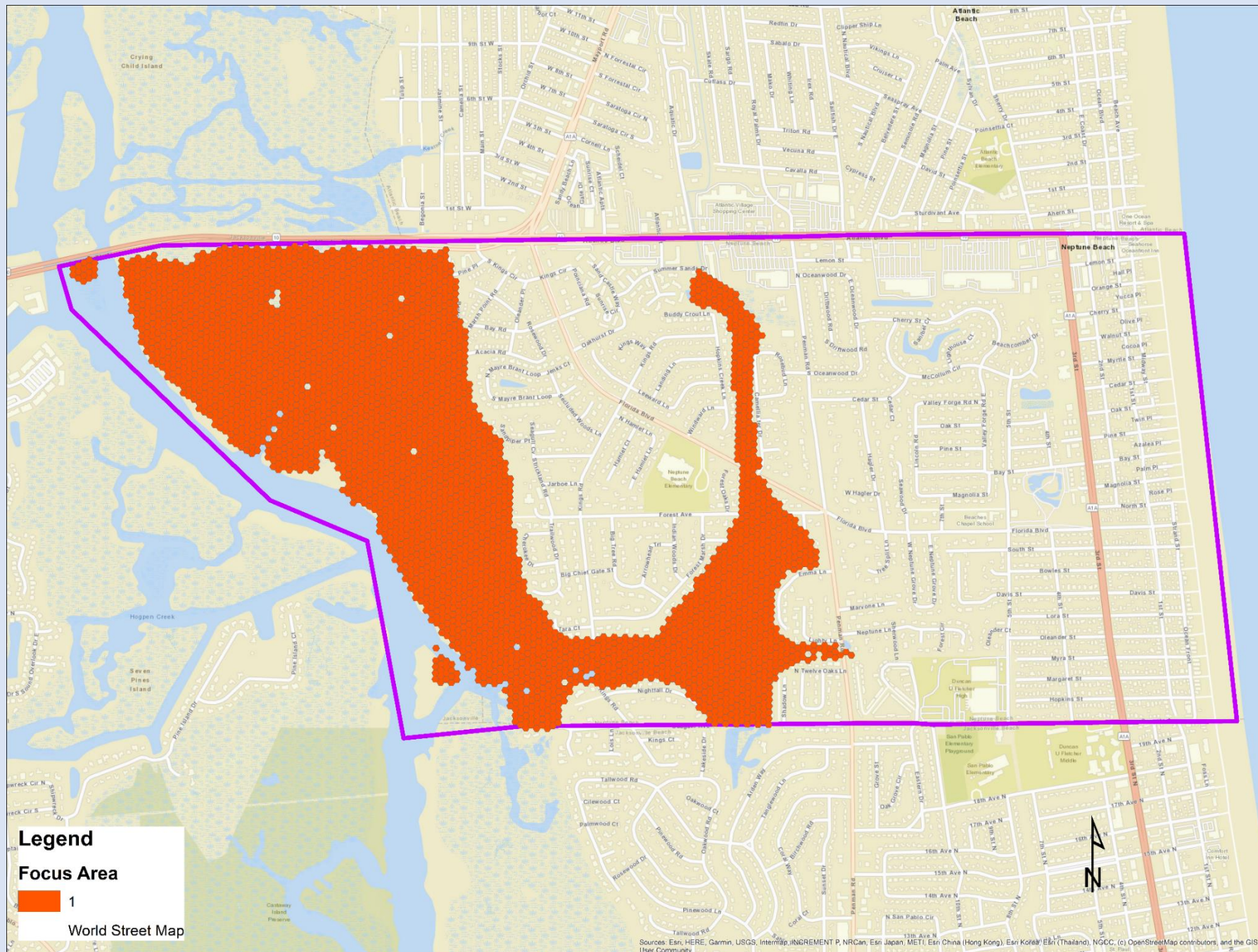
- Since storm tide is the combination of surge and tide, it *does* require a reference level
- A 15 ft. storm surge on top of a high tide that is 2 ft. above mean sea level produces a 17 ft. storm tide.

Source: National Hurricane Center, *Introduction to Storm Surge*, Storm Surge Unit, https://www.nhc.noaa.gov/surge/surge_intro.pdf, Accessed 02/13/20

Neptune Beach Hotspot Analysis

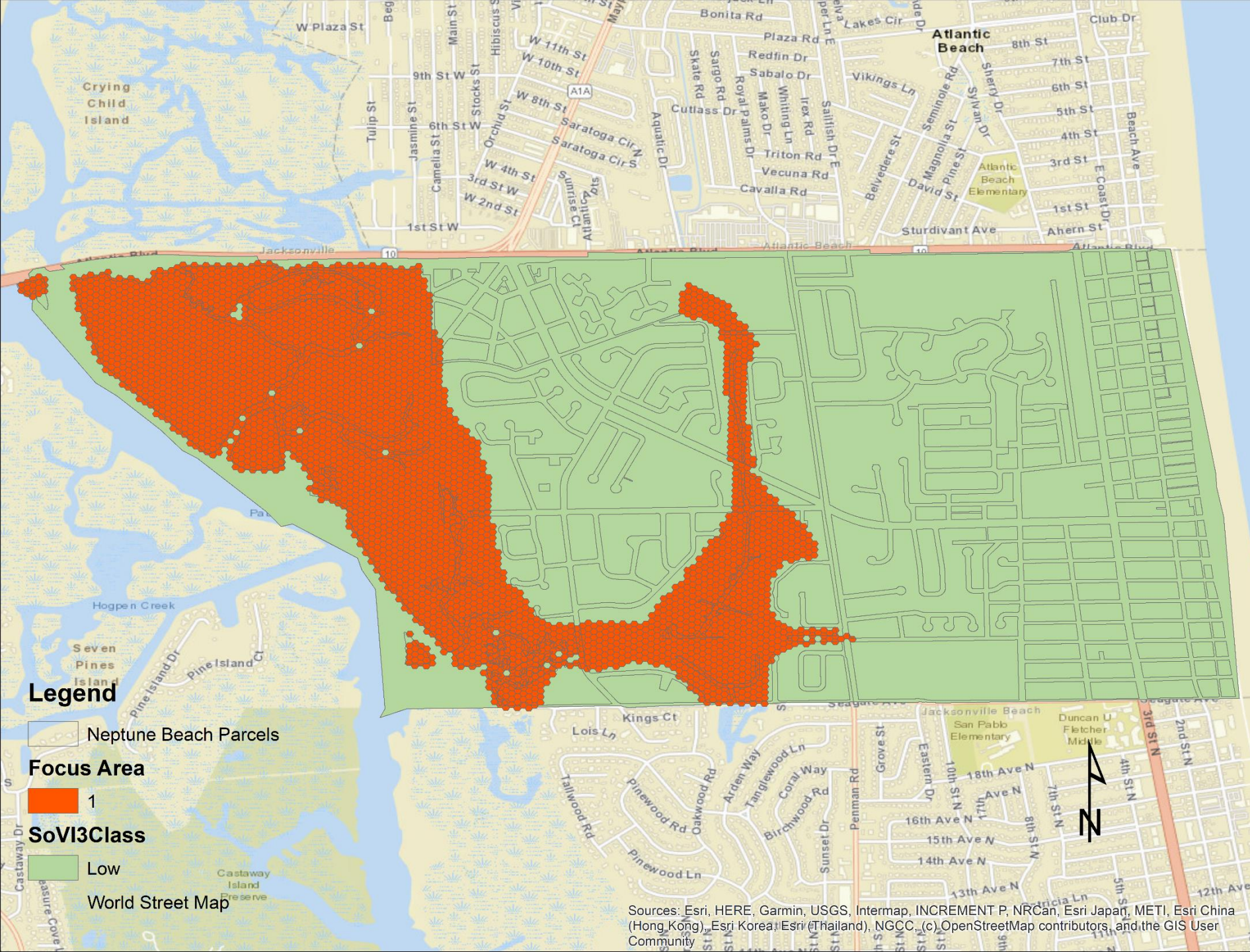
These are areas where the composite flood hazard exposure score local average is statistically higher or lower than the overall average City hazard exposure score.





Neptune Beach Potential Focus Area (~494 acres)

This is an area where the composite flood hazard exposure score is statistically high and could be the focus of specific adaptation management strategies (FDEP, 2018). This focus area totals 494 acres, representing about 40% of the City land area.

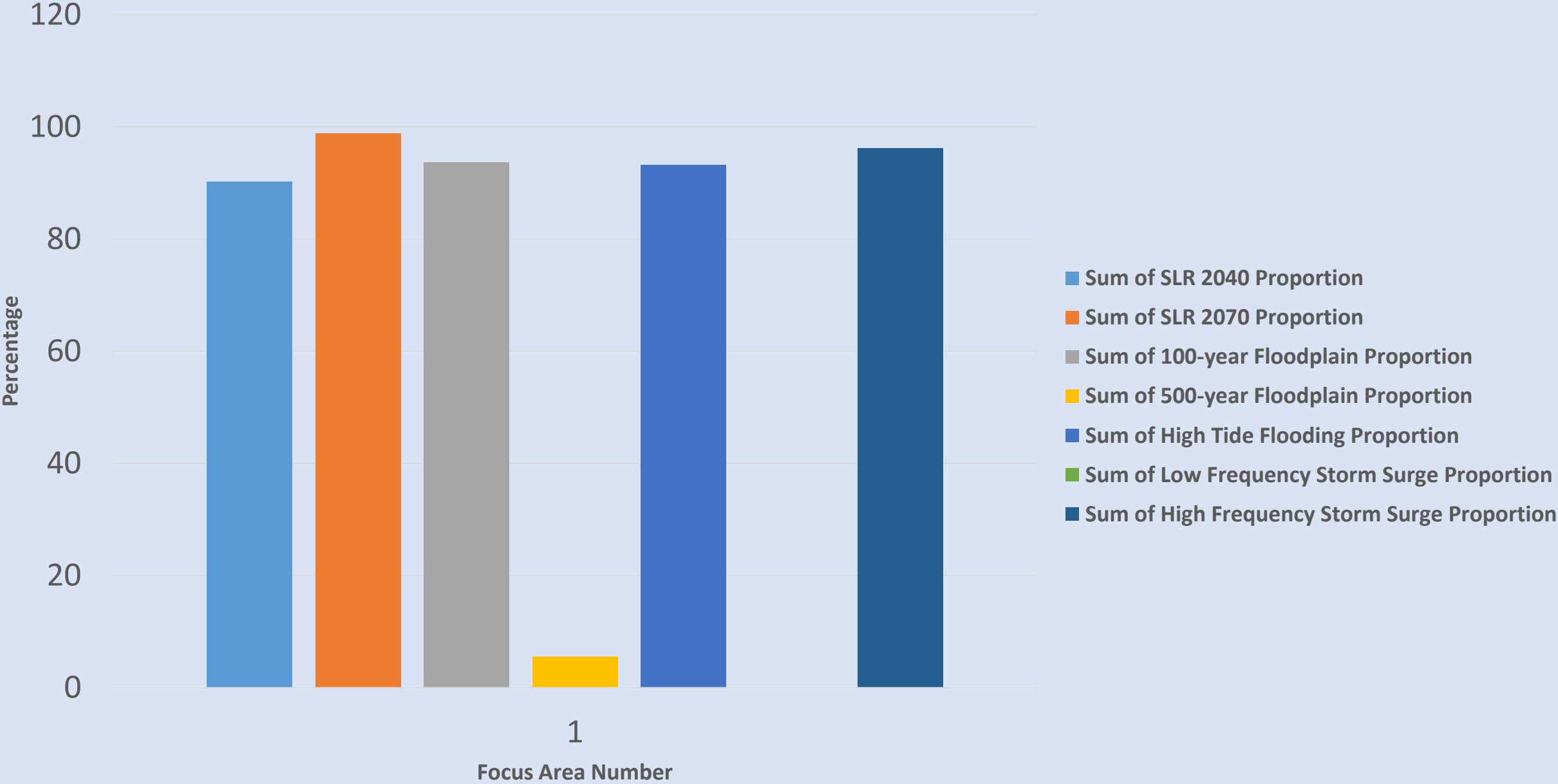


Neptune Beach Potential Focus Areas and Population Social Vulnerability

The population social vulnerability for Madeira Beach is within the Low Category. The Social Vulnerability Index (SoVI) considers multiple factors such as age, race, special needs, employment and income in determining vulnerability.

<https://www.vulnerabilitymap.org/Mapping-Tools/Social-Vulnerability>

Focus Area Flood Hazard Composition



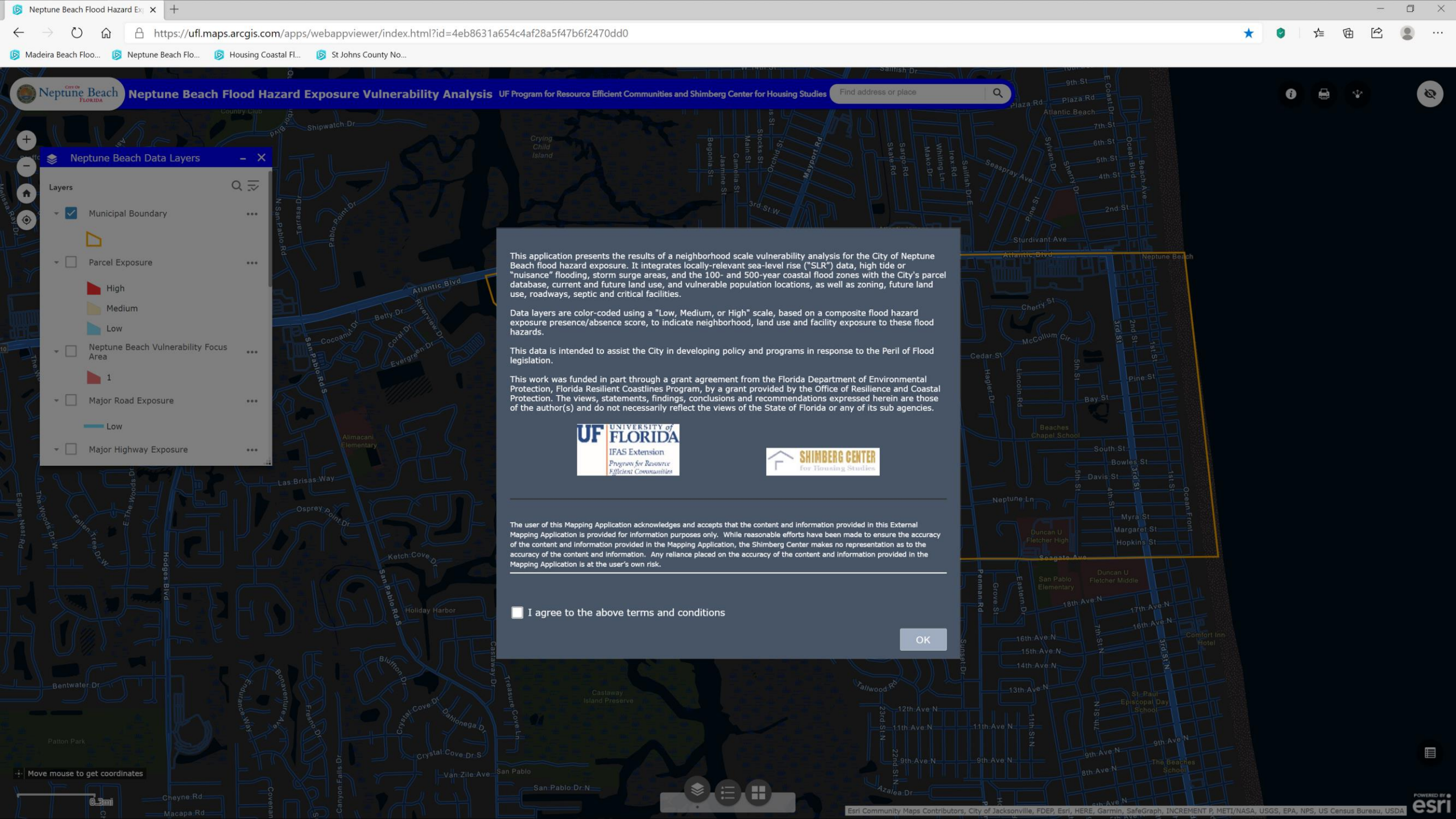
Focus Area Residential Summary

Category	Focus Area 1
Current Land Use	Single Family
Year Built	1977 - 1987
Construction Type	Wood
Just Value	Single Family = ~\$80mil; MF>10 units = ~\$22 mil

Flood Hazard Exposure Vulnerability Analysis Web App

<https://arcg.is/Ou8Lue>

- This app is a browser-based tool for analysis and display of housing, facilities, and land areas susceptible to flood-related hazards. Data layers can be visualized and downloaded for further analysis on the desktop. Housing data is based on the Florida Department of Revenue parcel database (2019).
- **Vulnerability** is defined in the context of this work as *exposure to flood hazards and potential for damage from these same hazards*. Scoring is based on a simple geographic presence/absence analysis, i.e. each time a parcel or facility is within a hazard zone it is assigned a value of 1 for that hazard. If it is not within the given flood hazard zone, it is assigned a value of 0. The overall score is a sum of values ranging from 0 (no exposure) to 7 (exposed to all hazards). The composite score is classified into an equal interval distribution represented as none, low, medium, or high exposure. This simple, linear scheme, by design, places equal emphasis on each category, and facilitates the calculation of risk metrics by using weighting or probabilities, for example.
- **Coastal flood hazards** comprising the score include:
 - sea level change projections 2040 and 2070 NOAA 2017 intermediate high
 - high tide flooding
 - storm surge (high = Cats 1-3 and low = Cats 4 & 5)
 - 100- and 500-year floodplains
- **Social vulnerability** refers to at-risk populations exposed to flood hazards. This information is incorporated into a separate Hazard + SoVI score, again categorized as low, medium, or high. Social vulnerability data is based on a statistical analysis of Census demographics, including age, race, income, education, and related variables (<https://www.vulnerabilitymap.org/Mapping-Tools/Social-Vulnerability>).



Presentation Workshops

Goal: Inform and engage the community in flood hazard vulnerability issues, potential mitigation actions, resilience considerations, and gather feedback on potential policies to address “Peril of Flood” legislation compliance.

1. Review Comprehensive Plan Coastal Management Element Policy Language.

2. Workshops

- Results of vulnerability assessment
- Gather feedback on potential policy language
- Outline next steps to improve community resilience

Peril of Flood legislation

BACKGROUND

REQUIREMENTS

LEGISLATIVE OPPORTUNITIES / LEGISLATIVE CONSTRAINTS

EXPERIMENT WIDELY

LOBBY FOR \$TATE \$UPPORT TO PURSUE NIMBLE \$TRATEGIES\$

COMPREHENSIVE PLAN

COASTAL MANAGEMENT ELEMENT

CONSERVATION ELEMENT

Biggert-Waters Flood Insurance Reform Act of 2012 (BW12) Timeline

Date of Implementation	Who Is Affected	What Will Happen	Why Is It Changing
July 10, 2012	<p>Owners of property:</p> <ul style="list-style-type: none"> that is affected by flooding on Federal land caused, or exacerbated by, post-wildfire conditions on Federal land, and who purchased flood insurance fewer than 30 days before the flood loss and within 60 days of the fire containment date. 	<ul style="list-style-type: none"> If a flood occurs under certain conditions, an exception to the 30-day waiting period is implemented for a policy purchased not later than 60 days after the fire containment date. 	<ul style="list-style-type: none"> BW 12 Section 100241 created a third exception to the 30-day waiting period for insurance coverage for private properties affected by flooding from Federal lands as a result of post-wildfire conditions.
October 19, 2012	<ul style="list-style-type: none"> Policyholders in the Missouri River Basin (ND, SD, IA, NE, KS, MO) who had claims on a policy purchased from May 1-June 6, 2011, and were not damaged by flood for 30 days after purchase date. 	<ul style="list-style-type: none"> When certain conditions are met, an alternative effective date for the policy or the increased coverage is established as the 30th day after the policy purchase date, without regard for the otherwise applicable flood in progress exclusion, for claims denied based on Exclusion V. 	<ul style="list-style-type: none"> BW 12 Section 100227(b) provides an alternative effective date for qualifying policies that had claims from flooding of the Missouri River that started June 1, 2011.
January 1, 2013	<ul style="list-style-type: none"> Homeowners with subsidized insurance rates on non-primary residences Properties receiving subsidized insurance rates are those structures built prior to the first Flood Insurance Rate Map (pre-FIRM properties) that have not been substantially damaged or improved. 	<ul style="list-style-type: none"> 25 percent increase in premium rates each year until premiums reflect full risk rates 	<ul style="list-style-type: none"> BW 12 calls for the phase-out of subsidies and discounts on flood insurance premiums. This premium increase is outlined in Section 100205. The phase out of subsidies affecting non-primary residences was also mandated by earlier 2012 legislation, HR 5740.
October 1, 2013	<ul style="list-style-type: none"> Owners of business properties with subsidized premiums Owners of severe repetitive loss properties consisting of 1-4 residences with subsidized premiums. Owners of any property that has incurred flood-related damage in which the cumulative amounts of claims payments exceeded the fair market value of such property. 	<ul style="list-style-type: none"> 25 percent increase in premium rates each year until premiums reflect full risk rates 	<ul style="list-style-type: none"> BW 12 calls for the phase-out of subsidies and discounts on flood insurance premiums. These premium increases are outlined in Section 100205.

Biggert-Waters Flood Insurance Reform Act of 2012 (BW12) Timeline

When	Who Is Affected	What Will Happen	Why Is It Changing
October 1, 2013 cont.	Owners of property <ul style="list-style-type: none"> not insured as of the date of enactment of BW 12 (subject to a possible exception in Section 100207 of BW 12); with a lapsed NFIP policy; that has been purchased after the date of enactment of BW 12. 	<ul style="list-style-type: none"> Full-risk rates will apply to these policies. 	<ul style="list-style-type: none"> BW 12 calls for the elimination of subsidies and discounts on flood insurance premiums. These premium increases are outlined in Section 100205.
Late 2014	<ul style="list-style-type: none"> Other property owners, including non-subsidized policyholders, affected by map changes 	<ul style="list-style-type: none"> Full-risk rates will be phased in over five years at a rate of 20 percent per year to reach full risk rates. 	<ul style="list-style-type: none"> BW 12 calls for the phase-out of subsidies and discounts on flood insurance premiums This premium increase is outlined in Section 100207.

CITY OF NEPTUNE BEACH COASTAL AND CONSERVATION ELEMENT

- COASTAL MANAGEMENT AND CONSERVATION ELEMENTS COMBINED
 - DOES THIS COMBINATION STILL MAKE SENSE?
 - CITY OF NAPLES, CITY OF MADEIRA BEACH EXAMPLES
 - COASTAL MANAGEMENT ELEMENT STATUTORY CRITERIA
 - CONSERVATION ELEMENT STATUTORY CRITERIA
- CURRENTLY:
 - FOUR (4) GOALS
 - 17 OBJECTIVES—GOAL 1 (7), GOAL 2 (3), GOAL 3 (5), GOAL 4 (2)
 - NUMEROUS POLICIES
 - NOT ALIGNED WITH STATUTORY FRAMEWORK—COMPLICATED REVISIONS

CONSERVATION ELEMENT: STATUTORY CRITERIA

F.S. § 163.3177(6)(d): A **conservation element** for the **conservation, use, and protection of natural resources** in the area, including air, water, water recharge areas, wetlands, waterwells, estuarine marshes, soils, beaches, shores, flood plains, rivers, bays, lakes, harbors, forests, fisheries and wildlife, marine habitat, minerals, and other natural and environmental resources, including factors that affect energy conservation.

Three (3) subsections:

CONSERVATION ELEMENT

Florida Statutes § 163.3177(6)(d) -(cont.)

1. The following **natural resources**, where present within the local government's boundaries, shall be **identified and analyzed** and existing recreational or conservation uses, known pollution problems, including hazardous wastes, and the potential for conservation, recreation, use, or protection shall also be **identified**:

CONSERVATION ELEMENT

Florida Statutes § 163.3177(6)(d) -(cont.)

- 1.a. Rivers, bays, lakes, wetlands including estuarine marshes, groundwaters, and springs, including information on quality of the resource available.
- b. Floodplains.
- c. Known sources of commercially valuable minerals.
- d. Areas known to have experienced soil erosion problems.
- e. Areas that are the location of recreationally and commercially important fish or shellfish, wildlife, marine habitats, and vegetative communities, including forests, indicating known dominant species present and species listed by federal, state, or local government agencies as endangered, threatened, or species of special concern.

CONSERVATION ELEMENT

Florida Statutes § 163.3177(6)(d) -(cont.)

2. The element must contain **principles, guidelines, and standards for conservation** that provide long-term goals and which:

- a. Protects air quality.
- b. Conserves, appropriately uses, and protects the quality and quantity of current and projected water sources and waters that flow into estuarine waters or oceanic waters and protect from activities and land uses known to affect adversely the quality and quantity of identified water sources, including natural groundwater recharge areas, wellhead protection areas, and surface waters used as a source of public water supply.

CONSERVATION ELEMENT

Florida Statutes § 163.3177(6)(d) -(cont.)

2.c. Provides for the emergency conservation of water sources in accordance with the plans of the regional water management district.

d. Conserves, appropriately uses, and protects minerals, soils, and native vegetative communities, including forests, from destruction by development activities.

e. Conserves, appropriately uses, and protects fisheries, wildlife, wildlife habitat, and marine habitat and restricts activities known to adversely affect the survival of endangered and threatened wildlife.

CONSERVATION ELEMENT

Florida Statutes § 163.3177(6)(d) -(cont.)

- 2.f. Protects existing natural reservations identified in the recreation and open space element.
- g. Maintains cooperation with adjacent local governments to conserve, appropriately use, or protect unique vegetative communities located within more than one local jurisdiction.
- h. Designates environmentally sensitive lands for protection based on locally determined criteria which further the goals and objectives of the conservation element.
- i. Manages hazardous waste to protect natural resources.

CONSERVATION ELEMENT

Florida Statutes § 163.3177(6)(d) -(cont.)

2.j. Protects and conserves wetlands and the natural functions of wetlands.

k. Directs future land uses that are incompatible with the protection and conservation of wetlands and wetland functions away from wetlands. The type, intensity or density, extent, distribution, and location of allowable land uses and the types, values, functions, sizes, conditions, and locations of wetlands are land use factors that shall be considered when directing incompatible land uses away from wetlands. Land uses shall be distributed in a manner that minimizes the effect and impact on wetlands. The protection and conservation of wetlands by the direction of incompatible land uses away from wetlands shall occur in combination with other principles, guidelines, standards, and strategies in the comprehensive plan. Where incompatible land uses are allowed to occur, mitigation shall be considered as one means to compensate for loss of wetlands functions.

CONSERVATION ELEMENT

Florida Statutes § 163.3177(6)(d) -(cont.)

3. Current and projected needs and sources for at least a 10-year period based on the demands for industrial, agricultural, and potable **water use** and the **quality and quantity** of water available to meet these demands shall be analyzed. The analysis shall consider the existing levels of water conservation, use, and protection and applicable policies of the **regional water management district** and further must consider the appropriate **regional water supply plan** approved pursuant to s. 373.709, or, in the absence of an approved regional water supply plan, the district water management plan approved pursuant to s. 373.036(2). This information shall be submitted to the appropriate agencies.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178

163.3178 Coastal management.—

Eight (8) subsections:

(1) The Legislature recognizes there is significant interest in the resources of the coastal zone of the state. Further, the Legislature recognizes that, in the event of a natural disaster, the state may provide financial assistance to local governments for the reconstruction of roads, sewer systems, and other public facilities. Therefore, it is the intent of the Legislature that local government comprehensive plans restrict development activities where such activities would damage or destroy coastal resources, and that such plans protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.

[Legislative finding]

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178

(2) Each coastal management element required by s. 163.3177(6)(g) shall be based on studies, surveys, and data; be consistent with coastal resource plans prepared and adopted pursuant to general or special law; and contain:

(a) A **land use and inventory map** of existing coastal uses, wildlife habitat, wetland and other vegetative communities, undeveloped areas, areas subject to coastal flooding, public access routes to beach and shore resources, historic preservation areas, and other areas of special concern to local government.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(b) **An analysis** of the environmental, socioeconomic, and fiscal impact of development and redevelopment proposed in the future land use plan, with required infrastructure to support this development or redevelopment, on the natural and historical resources of the coast **and the plans and principles to be used to control development and redevelopment to eliminate or mitigate the adverse impacts** on coastal wetlands; living marine resources; barrier islands, including beach and dune systems; unique wildlife habitat; historical and archaeological sites; and other fragile coastal resources.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(c) An analysis of the effects of **existing drainage systems** and the impact of point source and nonpoint source pollution on estuarine water quality and the plans and principles, including existing state and regional regulatory programs, which shall be used to maintain or upgrade water quality while maintaining sufficient quantities of water flow.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(d) A **component** which outlines principles for **hazard mitigation** and protection of human life against the effects of natural disaster, including population evacuation, which take into consideration the capability to safely evacuate the density of coastal population proposed in the future land use plan element in the event of an impending natural disaster. The Division of Emergency Management shall manage the update of the regional hurricane evacuation studies, ensure such studies are done in a consistent manner, and ensure that the methodology used for modeling storm surge is that used by the National Hurricane Center.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(e) A **component** which outlines principles for protecting existing **beach and dune systems** from human-induced erosion and for restoring altered beach and dune systems.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(f) A **redevelopment component** that outlines the principles that must be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. The component must:

“Peril of Flood” provisions (2015):

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)(f)

1. Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)(f)-(cont.)

2. Encourage the use of **best practices development and redevelopment principles, strategies, and engineering solutions** that will result in the **removal of coastal real property from flood zone** designations established by the Federal Emergency Management Agency.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)(f)-(cont.)

3. Identify site development techniques and best practices that may reduce losses due to flooding and claims made under flood insurance policies issued in this state.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)(f)-(cont.)

4. Be consistent with, or more stringent than, the flood-resistant construction requirements in the **Florida Building Code** and applicable flood plain management regulations set forth in **44 C.F.R. part 60**.
5. Require that any construction activities seaward of the **coastal construction control lines** established pursuant to s. 161.053 be consistent with chapter 161.
6. Encourage local governments to participate in the **National Flood Insurance Program Community Rating System** administered by the Federal Emergency Management Agency to achieve flood insurance premium discounts for their residents.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(g) A **shoreline use component** that identifies public access to beach and shoreline areas and addresses the need for water-dependent and water-related facilities, including marinas, along shoreline areas. Such component must include the strategies that will be used to preserve recreational and commercial working waterfronts as defined in s. 342.07.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(h) Designation of coastal high-hazard areas and the criteria for mitigation for a comprehensive plan amendment in a coastal high-hazard area as defined in subsection (8). The coastal high-hazard area is the area below the elevation of the category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. Application of mitigation and the application of development and redevelopment policies, pursuant to s. 380.27(2), and any rules adopted thereunder, shall be at the discretion of local government.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(i) A **component** which outlines principles for providing that **financial assurances** are made that **required public facilities will be in place to meet the demand** imposed by the completed **development or redevelopment**. Such public facilities will be scheduled for phased completion to coincide with demands generated by the development or redevelopment.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(j) An **identification of regulatory and management techniques** that the local government plans to adopt or has adopted in order to mitigate the threat to human life and to control proposed development and redevelopment in order to protect the coastal environment and give consideration to cumulative impacts.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(2)

(k) **[DEEPWATER PORTS]** A component which includes the comprehensive master plan prepared by each deepwater port listed in s. 311.09(1), which addresses existing port facilities and any proposed expansions, and which adequately addresses the applicable requirements of paragraphs (a)-(k) for areas within the port and proposed expansion areas. Such component shall be submitted to the appropriate local government at least 6 months prior to the due date of the local plan and shall be integrated with, and shall meet all criteria specified in, the coastal management element. “The appropriate local government” means the municipality having the responsibility for the area in which the deepwater port lies, except that where no municipality has responsibility, where a municipality and a county each have responsibility, or where two or more municipalities each have responsibility for the area in which the deepwater port lies, “the appropriate local government” means the county which has responsibility for the area in which the deepwater port lies. Failure by a deepwater port which is not part of a local government to submit its component to the appropriate local government shall not result in a local government being subject to sanctions pursuant to s. 163.3184. However, a deepwater port which is not part of a local government shall be subject to sanctions pursuant to s. 163.3184.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178

(3) **[DEEPWATER PORTS]** Expansions to port harbors, spoil disposal sites, navigation channels, turning basins, harbor berths, and other related inwater harbor facilities of ports listed in s. 403.021(9); port transportation facilities and projects listed in s. 311.07(3)(b); intermodal transportation facilities identified pursuant to s. 311.09(3); and facilities determined by the state land planning agency and applicable general-purpose local government to be port-related industrial or commercial projects located within 3 miles of or in a port master plan area which rely upon the use of port and intermodal transportation facilities may not be designated as developments of regional impact if such expansions, projects, or facilities are consistent with comprehensive master plans that are in compliance with this section.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178

(4) Improvements and maintenance of **federal and state highways** that have been approved as part of a plan approved pursuant to s. 380.045 or s. 380.05 shall be **exempt** from the provisions of s. 380.27(2).

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178

(5) **[DEEPWATER PORTS]** The appropriate dispute resolution process provided under s. 186.509 must be used to reconcile inconsistencies between port master plans and local comprehensive plans. In recognition of the state's commitment to deepwater ports, the state comprehensive plan must include goals, objectives, and policies that establish a statewide strategy for enhancement of existing deepwater ports, ensuring that priority is given to water-dependent land uses. As an incentive for promoting plan consistency, port facilities as defined in s. 315.02(6) on lands owned or controlled by a deepwater port as defined in s. 311.09(1), as of the effective date of this act shall not be subject to development-of-regional-impact review provided the port either successfully completes an alternative comprehensive development agreement with a local government pursuant to ss. 163.3220-163.3243 or successfully enters into a development agreement with the state land planning agency and applicable local government pursuant to s. 380.032 or, where the port is a department of a local government, successfully enters into a development agreement with the state land planning agency pursuant to s. 380.032. Port facilities as defined in s. 315.02(6) on lands not owned or controlled by a deepwater port as defined in s. 311.09(1) as of the effective date of this act shall not be subject to development-of-regional-impact review provided the port successfully enters into a development agreement with the state land planning agency and applicable local government pursuant to s. 380.032 or, where the port is a department of a local government, successfully enters into a development agreement with the state land planning agency pursuant to s. 380.032.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178

(6) **[DEEPWATER PORTS]** Each port listed in s. 311.09(1) and each local government in the coastal area which has **spoil disposal responsibilities** shall provide for or identify disposal sites for dredged materials in the future land use and port elements of the local comprehensive plan as needed to assure proper long-term management of material dredged from navigation channels, sufficient long-range disposal capacity, environmental sensitivity and compatibility, and reasonable cost and transportation. The disposal site selection criteria shall be developed in consultation with navigation and inlet districts and other appropriate state and federal agencies and the public. For areas owned or controlled by ports listed in s. 311.09(1) and proposed port expansion areas, compliance with the provisions of this subsection shall be achieved through comprehensive master plans prepared by each port and integrated with the appropriate local plan pursuant to paragraph (2)(k).

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178

(7) **Each county** shall establish a county-based process for **identifying and prioritizing coastal properties** so they may be **acquired** as part of the state's land acquisition programs. This process must include the establishment of criteria for prioritizing coastal acquisitions which, in addition to recognizing pristine coastal properties and coastal properties of significant or important environmental sensitivity, recognize hazard mitigation, beach access, beach management, urban recreation, and other policies necessary for effective coastal management.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178

(8)(a) A proposed **comprehensive plan amendment** shall be found in **compliance with state coastal high-hazard provisions** if:

1. The adopted level of service for out-of-county hurricane evacuation is maintained for a category 5 storm event as measured on the Saffir-Simpson scale; or
2. A 12-hour evacuation time to shelter is maintained for a category 5 storm event as measured on the Saffir-Simpson scale and shelter space reasonably expected to accommodate the residents of the development contemplated by a proposed comprehensive plan amendment is available; or

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(8)-(cont.)

3. Appropriate mitigation is provided that will satisfy subparagraph 1. or subparagraph 2. Appropriate mitigation shall include, without limitation, payment of money, contribution of land, and construction of hurricane shelters and transportation facilities. Required mitigation may not exceed the amount required for a developer to accommodate impacts reasonably attributable to development. A local government and a developer shall enter into a binding agreement to memorialize the mitigation plan.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3178(8)-(cont.)

(b) For those local governments that have not established a level of service for out-of-county hurricane evacuation by following the process in paragraph (a), the level of service shall be no greater than 16 hours for a category 5 storm event as measured on the Saffir-Simpson scale.

(c) This subsection shall become effective immediately and shall apply to all local governments. Local governments shall amend their future land use map and coastal management element to include the new definition of coastal high-hazard area and to depict the coastal high-hazard area on the future land use map.

NEPTUNE BEACH: CURRENT CONSERVATION AND COASTAL MANAGEMENT ELEMENT

FOUR (4) GOALS –

GOAL 1: Coastal Resource Management. [COASTAL]; Natural Resource Conservation for Future Generations. [CONSERVATION] [7 Objectives]

GOAL 2: Protecting Lives and Property from Natural Disasters. [COASTAL] [3 Objectives]

GOAL 3: Protect, preserve, and maintain natural resources. [CONSERVATION] [5 Objectives] [COASTAL/CONSERVATION]

GOAL 4: Energy Conservation; reduce GHG. [CONSERVATION] [2 Objectives]

GOALS, OBJECTIVES, POLICIES, AND STRATEGIES: GOPS—STATUTORY CROSSWALK

- ALIGN CURRENT GOPS WITH STATUTORY FRAMEWORK:
 1. TRACK THE PROVISIONS OF THE STATUTORY SECTIONS
 2. SEPARATE COASTAL MANAGEMENT ELEMENT GOPS FROM CONSERVATION ELEMENT GOPS
- EDIT FOR PLAIN LANGUAGE, OBSOLESCENCE, AND REDUNDANCY, AND RENUMBERING (PENDING LOS STANDARDS AMENDMENT)
- PROPOSE NEW GOPS, WHERE NECESSARY TO:
 1. ADDRESS STATUTORY OMISSIONS, OVERSIGHTS, ETC.
 2. ADDRESS PERIL OF FLOOD REQUIREMENTS
 3. ADDRESS RESILIENCE PLANNING GRANT REQUIREMENTS
 4. GENERAL UPDATES—EVALUATION AND APPRAISAL

E. COASTAL AND CONSERVATION ELEMENT GOALS, OBJECTIVES, AND POLICIES

[PREAMBLE]

ALL CONSERVATION RELATED ACTIVITIES AND THE MANAGEMENT OF COASTAL RESOURCES WITHIN THE CITY OF NEPTUNE BEACH SHALL BE IN ACCORDANCE WITH THE FOLLOWING GOALS, OBJECTIVE[S,] AND POLICIES:

GOAL E.1:

THE COAST OF NEPTUNE BEACH HAS, FOR THE MOST PART, BEEN DEVELOPED FOR URBAN USE. THE CITY SHALL RESTRICT ANY FUTURE DEVELOPMENT OR REDEVELOPMENT THAT WOULD DESTROY OR OTHERWISE DAMAGE COASTAL RESOURCES. THE CITY SHALL PROTECT, ENHANCE, AND PRESERVE BEACH AND WETLANDS DUNE SYSTEMS, AS WELL AS OTHER COASTAL RESOURCES OF ENVIRONMENTAL VALUE, THROUGH PROPER MAINTENANCE AND MANAGEMENT PRACTICES AND THE AVOIDANCE OF INAPPROPRIATE USE AND DEVELOPMENT, INCLUDING PUBLIC-FINANCED IMPROVEMENTS WITHIN THE COASTAL HIGH HAZARD AREA (MAP E-1). [COASTAL] THE CITY SHALL CONSERVE, UTILIZE, AND PROTECT ITS NATURAL RESOURCES TO INSURE THAT ADEQUATE RESOURCES ARE AVAILABLE FOR FUTURE GENERATIONS. [CONSERVATION]

CROSSWALK – GOAL E.1 (continued):

Seven (7) Objectives

Objective E.1.1	[CONSERVATION]	1 Policy
Objective E.1.2	[COASTAL] § 163.3178(2)(d), (e)	2 Policies
Objective E.1.3	[COASTAL] § 163.3178(2)(c), (e)	3 Policies
Objective E.1.4	[COASTAL] § 163.3178(2)(h), (e)	3 Policies
Objective E.1.5	[CONSERVATION]	1 Policy
Objective E.1.6	[COASTAL] § 163.3178(2)(h)	6 Policies
Objective E.1.7	[COASTAL] § 163.3178(2)(g)	5 Policies

GOAL E.2:

THE CITY SHALL MINIMIZE, TO THE EXTENT FEASIBLE, PROVISIONS AND OPPORTUNITIES FOR THE PROTECTION OF LIFE AND PROPERTY FROM THE EFFECTS OF HURRICANES AND OTHER NATURAL DISASTERS. [COASTAL]

CROSSWALK – GOAL E.2 (continued):

Three (3) Objectives

Objective E.2.1	[COASTAL] § 163.3178(2)(d)	5 Policies
Objective E.2.2	[COASTAL] § 163.3178(2)(f), (h)	4 Policies
Objective E.2.3	[COASTAL] § 163.3178(2)(d)	2 Policies

GOAL E.3:

THE CITY SHALL PROTECT, PRESERVE, AND MAINTAIN NATURAL ENVIRONMENTAL RESOURCES SO AS TO MAINTAIN OR ENHANCE AIR QUALITY, WATER QUALITY, VEGETATIVE COMMUNITIES, WILDLIFE HABITATS, AND THE NATURAL FUNCTIONS OF SOILS, FISHERIES, WETLANDS, AND ESTUARINE MARSHES.

[CONSERVATION]

CROSSWALK – GOAL E.3 (continued):

Five (5) Objectives [Coastal/Conservation]

Objective E.3.1	[CONSERVATION]	1 Policy
Objective E.3.2	[MIXED]	9 Policies
Objective E.3.3	[COASTAL] § 163.3178(2)(j)	3 Policies
Objective E.3.4	[COASTAL] § 163.3178(2)(g)	No Policy
Objective E.1.5	[COASTAL] § 163.3178(2)(g)	4 Policies

GOAL E.4:

THE CITY SHALL PROMOTE AND ENCOURAGE
ENERGY CONSERVATION AND EFFICIENCY IN AN
EFFORT TO REDUCE GREENHOUSE GAS
EMISSIONS AND PROTECT THE ENVIRONMENT.
[CONSERVATION]

CROSSWALK – GOAL E.4 (continued):

Two (2) Objectives

Objective E.1.1 [CONSERVATION]

3 Policies

Objective E.1.2 [CONSERVATION]

4* Policies

GOALS, OBJECTIVES, POLICIES, AND STRATEGIES: GOPS—STATUTORY CROSSWALK

- Given the increasing complexities of the Statutes, § § 163.3177 and 163.3178, it may be more practical to reorganize the Conservation and Coastal Management Element to track the statutes.
- Particularly with regard to “Peril of Flood” legislation compliance, separate Coastal Management and Conservation Elements seem more manageable moving forward with the EAR.

Coastal Management Element—Statutory Crosswalk: § 163.3177(6)(d) [Conservation]

GOAL E.1

Final Sentence:

THE CITY SHALL CONSERVE, UTILIZE, AND PROTECT ITS NATURAL RESOURCES TO INSURE THAT ADEQUATE RESOURCES ARE AVAILABLE FOR FUTURE GENERATIONS.

GOAL E.3

THE CITY SHALL PROTECT, PRESERVE, AND MAINTAIN NATURAL ENVIRONMENTAL RESOURCES SO AS TO MAINTAIN OR ENHANCE AIR QUALITY, WATER QUALITY, VEGETATIVE COMMUNITIES, WILDLIFE HABITATS, AND THE NATURAL FUNCTIONS OF SOILS, FISHERIES, WETLANDS, AND ESTUARINE MARSHES.

GOAL E.4

THE CITY SHALL PROMOTE AND ENCOURAGE ENERGY CONSERVATION AND EFFICIENCY IN AN EFFORT TO REDUCE GREENHOUSE GAS EMISSIONS AND PROTECT THE ENVIRONMENT.

Coastal Management Element—Statutory Crosswalk: § 163.3178(1) [Coastal]

“COASTAL RESOURCES”

[PREAMBLE]

ALL CONSERVATION RELATED ACTIVITIES AND THE MANAGEMENT OF COASTAL RESOURCES WITHIN THE CITY OF NEPTUNE BEACH SHALL BE IN ACCORDANCE WITH THE FOLLOWING GOALS, OBJECTIVE[S,] AND POLICIES:

GOAL E.1

THE COAST OF NEPTUNE BEACH HAS, FOR THE MOST PART, BEEN DEVELOPED FOR URBAN USE. THE CITY SHALL RESTRICT ANY FUTURE DEVELOPMENT OR REDEVELOPMENT THAT WOULD DESTROY OR OTHERWISE DAMAGE COASTAL RESOURCES. THE CITY SHALL PROTECT, ENHANCE, AND PRESERVE BEACH AND WETLANDS DUNE SYSTEMS, AS WELL AS OTHER COASTAL RESOURCES OF ENVIRONMENTAL VALUE, THROUGH PROPER MAINTENANCE AND MANAGEMENT PRACTICES AND THE AVOIDANCE OF INAPPROPRIATE USE AND DEVELOPMENT, INCLUDING PUBLIC-FINANCED IMPROVEMENTS WITHIN THE COASTAL HIGH HAZARD AREA (MAP E-1). [ALL BUT FINAL SENTENCE]

Coastal Management Element—Statutory Crosswalk: § 163.3178(2) [Coastal]

“LIFE SAFETY”

GOAL E.2

THE CITY SHALL MINIMIZE, TO THE EXTENT FEASIBLE, PROVISIONS AND OPPORTUNITIES FOR THE PROTECTION OF LIFE AND PROPERTY FROM THE EFFECTS OF HURRICANES AND OTHER NATURAL DISASTERS.

Peril of Flood—F.S. § 163.3178(2)(f) (2015)

(f) **A redevelopment component** ~~that which~~ outlines the principles that must ~~which shall~~ be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. The component must:

1. Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas . . . from . . . related impacts of sea-level rise.
2. Encourage . . . the removal of coastal real property from [FEMA] flood zone designations.
3. Site development techniques and best practices [to] reduce [flood] losses [and] flood insurance claims.
4. [C]onsistent with, or more stringent than, the Florida Building Code and [FEMA] flood regulations 44 C.F.R. part 60.
5. Construction seaward of the coastal construction control lines must be consistent with chapter 161.
6. Encourage local governments to participate in the NFIP CRS to achieve flood insurance premium discounts for their residents.

1. Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas . . . from . . . related impacts of sea-level rise.

Policy E.1.2.1: The City shall enforce its floodplain management regulations to conform with or exceed the requirements of the Federal Emergency Management Agency [FEMA].

Policy E.1.4.3: Development orders shall not be issued in known or predicted high-hazard areas.

2. Encourage . . . the removal of coastal real property from [FEMA] flood zone designations.

Policy E.1.3.3: Rigid coastal armoring is prohibited except as otherwise authorized and permitted according to Section 161.085(9), Florida Statutes and Chapter 62B-56, Florida Administrative Code.

Policy E.1.4.3: Development orders shall not be issued in known or predicted high-hazard areas.

3. Site development techniques and best practices [to] reduce [flood] losses [and] flood insurance claims.

E.1.2.1: The City shall enforce its floodplain management regulations to conform with or exceed the requirements of the Federal Emergency Management Agency [FEMA].

4. [C]onsistent with, or more stringent than, the Florida Building Code and [FEMA] flood regulations 44 C.F.R. part 60.

Policy E.1.2.1: The City shall enforce its floodplain management regulations to conform with or exceed the requirements of the Federal Emergency Management Agency [FEMA].

Policy E.1.3.1: The City shall enforce the Coastal Construction Code, and the Florida Building Code as these regulate construction within Coastal Areas.

5. Construction seaward of the coastal construction control lines must be consistent with chapter 161.

Policy E.1.4.2: The City will assist in the enforcement of coastal construction setback lines as established by other regulatory agencies.

6. Encourage local governments to participate in the NFIP CRS to achieve flood insurance premium discounts for their residents.

Objective E.1.2: The City shall continue best management practices that are intended to reduce damage to and erosion of dune systems and dune vegetation and estuarine environments that result from pedestrian traffic.

Policy E.1.2.1: The City shall enforce its floodplain management regulations to conform with or exceed the requirements of the Federal Emergency Management Agency [FEMA].

Policy E.1.2.2: The City shall continue to partner in the Duval County Local Mitigation Strategy [LMS] and participate in the Duval County emergency preparedness operations. The City shall review new Land Development Regulations for consistency with the Local Mitigation Strategy prior to adoption.

Florida Statutes Section 163.3177.

Required and optional elements of comprehensive plan; studies and surveys.

* * *

(6) In addition to the requirements of subsections (1)-(5), the comprehensive plan shall include the following elements:

COASTAL MANAGEMENT ELEMENT: STATUTORY CRITERIA

F.S. § 163.3177(6)(g): For those units of local government identified in [s. 380.24](#), a [coastal management element](#), appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of [s. 163.3178\(2\) and \(3\)](#). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives:

Ten (10) subsections:

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3177(6)(g) -(cont.)

1. Maintain, restore, and enhance the overall quality of the **coastal zone environment**, including, but not limited to, its amenities and aesthetic values.
2. Preserve the continued existence of viable populations of all **species of wildlife and marine life**.
3. Protect the orderly and balanced utilization and preservation, consistent with sound conservation principles, of all **living and nonliving coastal zone resources**.
4. Avoid **irreversible and irretrievable loss** of coastal zone resources.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3177(6)(g) -(cont.)

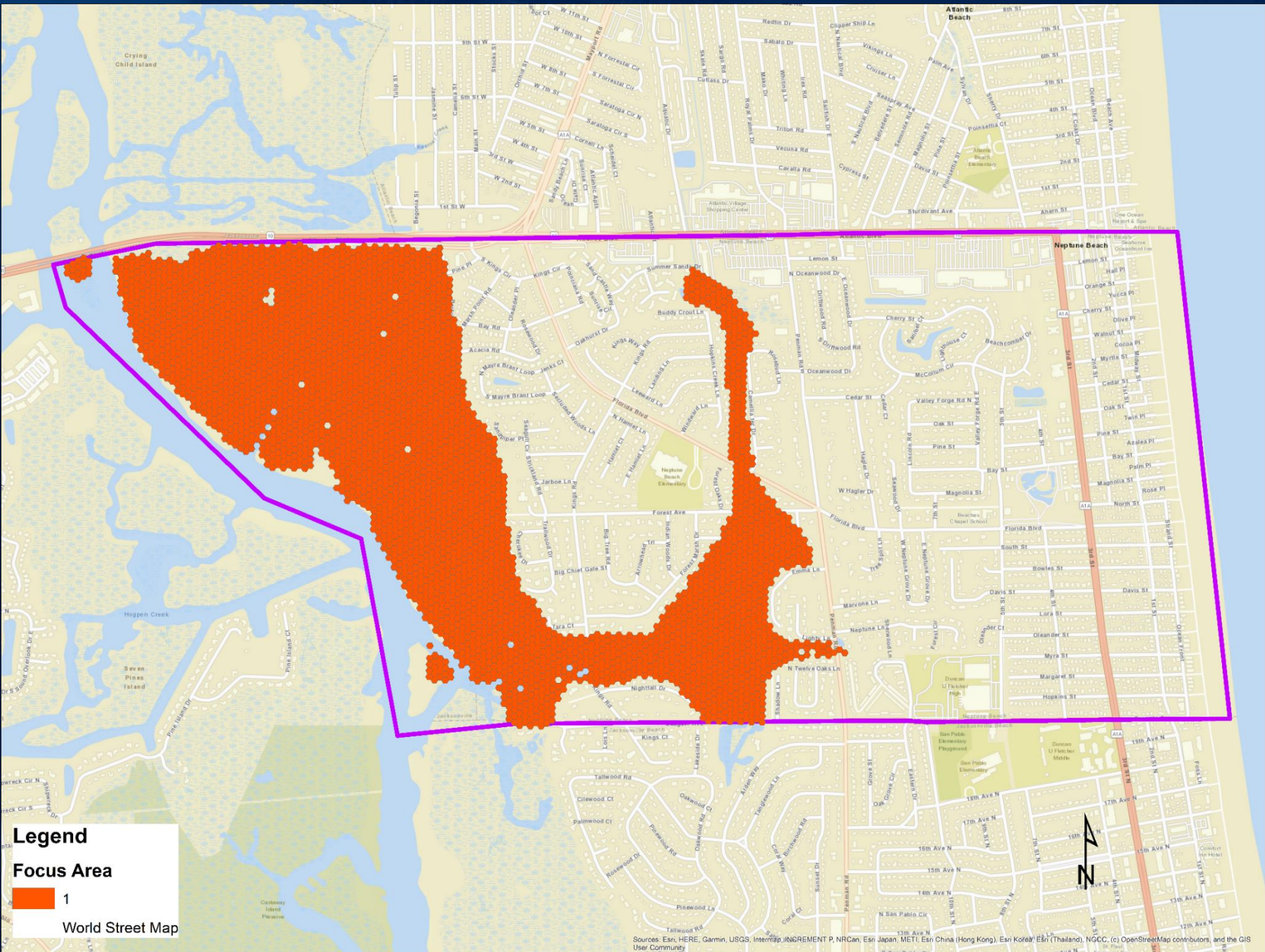
5. Use **ecological** planning principles and assumptions in the determination of the **suitability of permitted development**.
6. **Limit public expenditures that subsidize development in coastal high-hazard areas.**
7. **Protect human life against the effects of natural disasters.**
8. Direct the orderly development, maintenance, and use of **ports** identified in s. 403.021(9) to facilitate deepwater commercial navigation and other related activities.
9. Preserve **historic and archaeological resources**, which include the sensitive adaptive use of these resources.

COASTAL MANAGEMENT ELEMENT

Florida Statutes § 163.3177(6)(g) -(cont.)

[ADAPTATION ACTION AREAS:]

10. At the option of the local government, develop an adaptation action area designation for those low-lying coastal zones that are experiencing coastal flooding due to extreme high tides and storm surge and are vulnerable to the impacts of rising sea level. Local governments that adopt an adaptation action area may consider policies within the coastal management element to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, stormwater runoff, and related impacts of sea-level rise. Criteria for the adaptation action area may include, but need not be limited to, areas for which the land elevations are below, at, or near mean higher high water, which have a hydrologic connection to coastal waters, or which are designated as evacuation zones for storm surge.



Neptune Beach Potential Adaptation Action Area (AAA)

This is an area where the composite flood hazard exposure score is statistically high and could be the focus of specific adaptation management strategies (FDEP, 2018). This focus area totals 494 acres, representing about 40% of the City land area.

Types of Policy Tools:

- Development regulations
- Land acquisition
- Density transfer provisions
- Financial incentives and penalties
- Land use analysis and permitting process
- Public facilities (including housing)
- Post-disaster reconstruction decisions
- Capital improvements

Final Project Assessment and Report

Goal: Summarize findings—

- 1. Vulnerability assessment;**
- 2. Community engagement process;**
- 3. Draft policy language; and**
- 4. Alignment among the three (3) barrier island communities.**

QUESTIONS???

FOR THE

#GATORGOOD

Gerald Murphy, JD, AICP, CFM

Faculty Consultant, Program for Resource Efficient Communities