



# Resilience Planning Grant R2106

## City of Neptune Beach Initial Public Outreach Workshop

February 23, 2021

FOR THE

#GATORGOOD

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# 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.**

## Workshops

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

# Final Project Assessment and Report

**Goal: Summarize findings—**

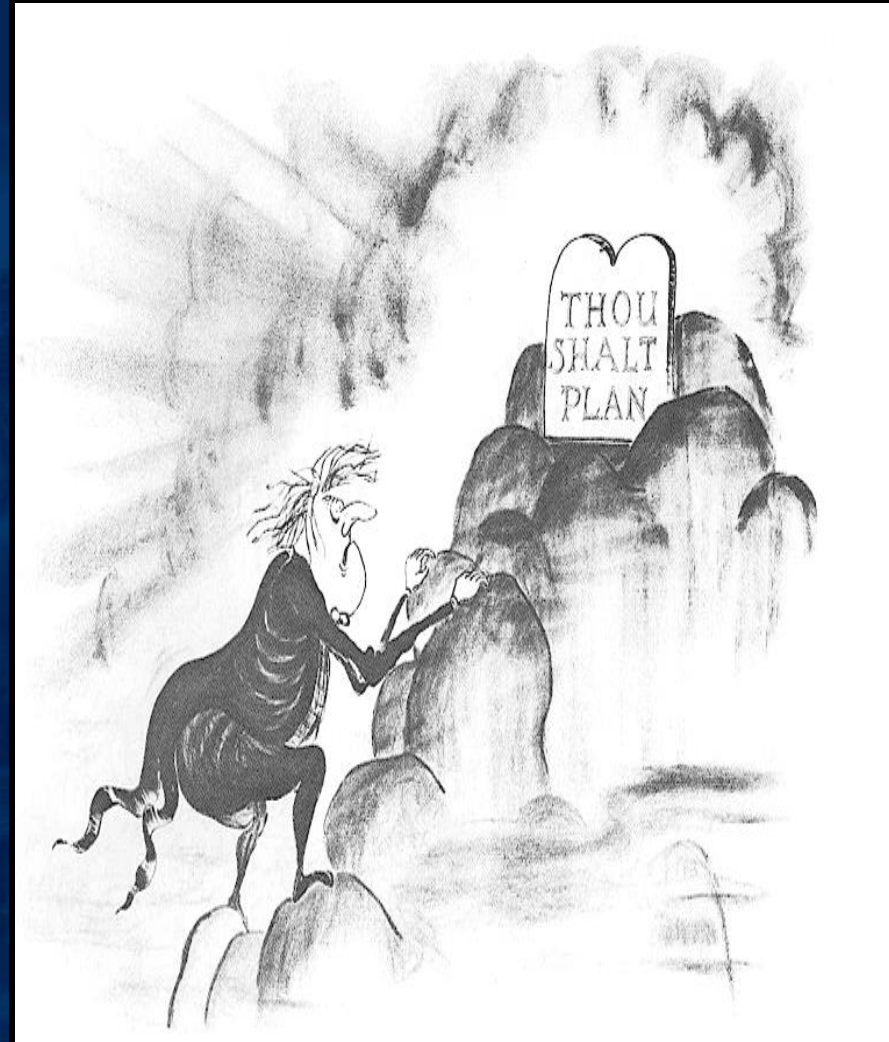
- 1. Vulnerability assessment;**
- 2. Community engagement process;**
- 3. Draft policy language; and**
- 4. Alignment among the three (3) barrier island communities.**



# 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

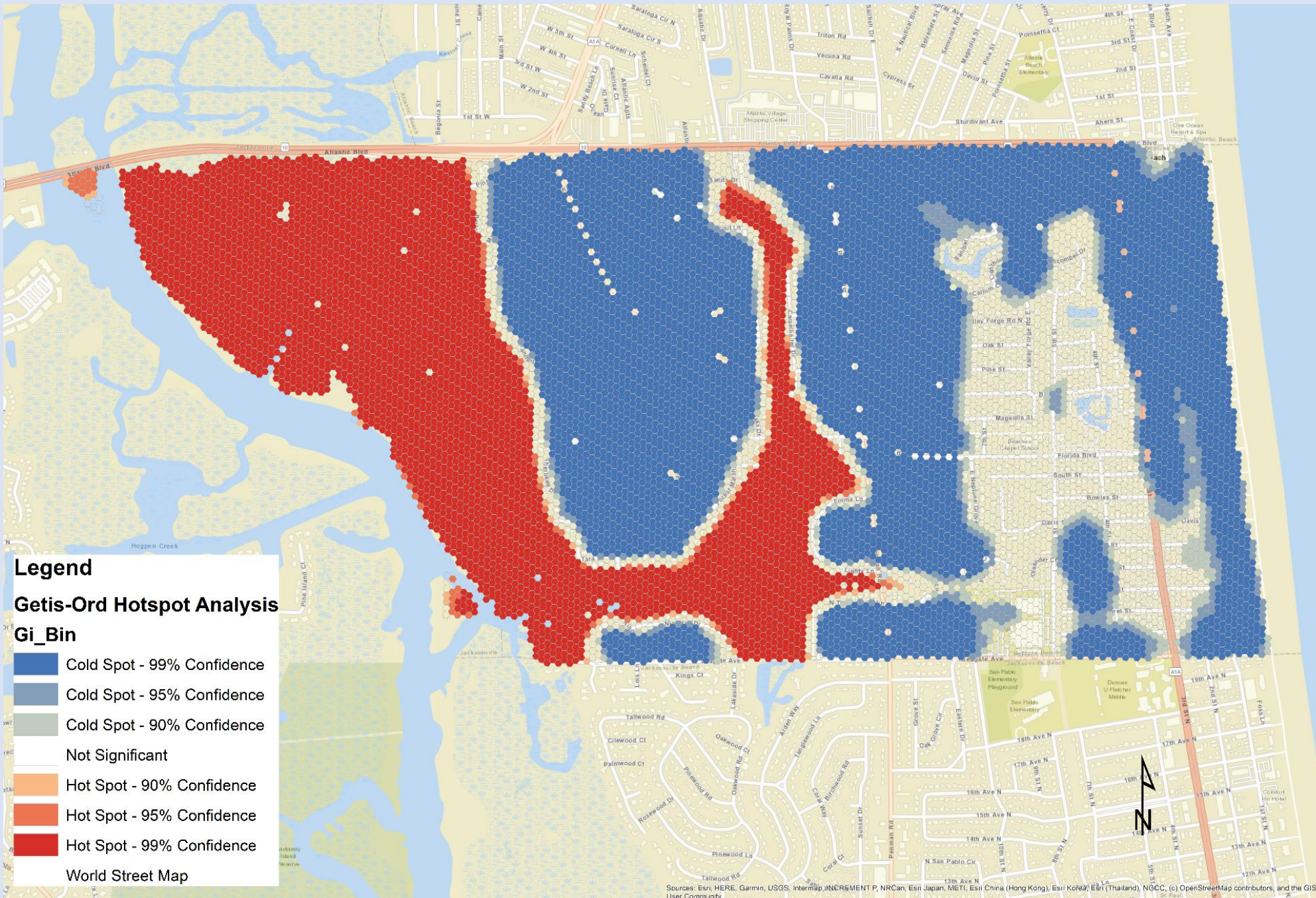
- Identify the infrastructure, land uses, and people who may be impacted by sea-level rise (SLR).
- Risk and vulnerability are often used interchangeably.

“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)

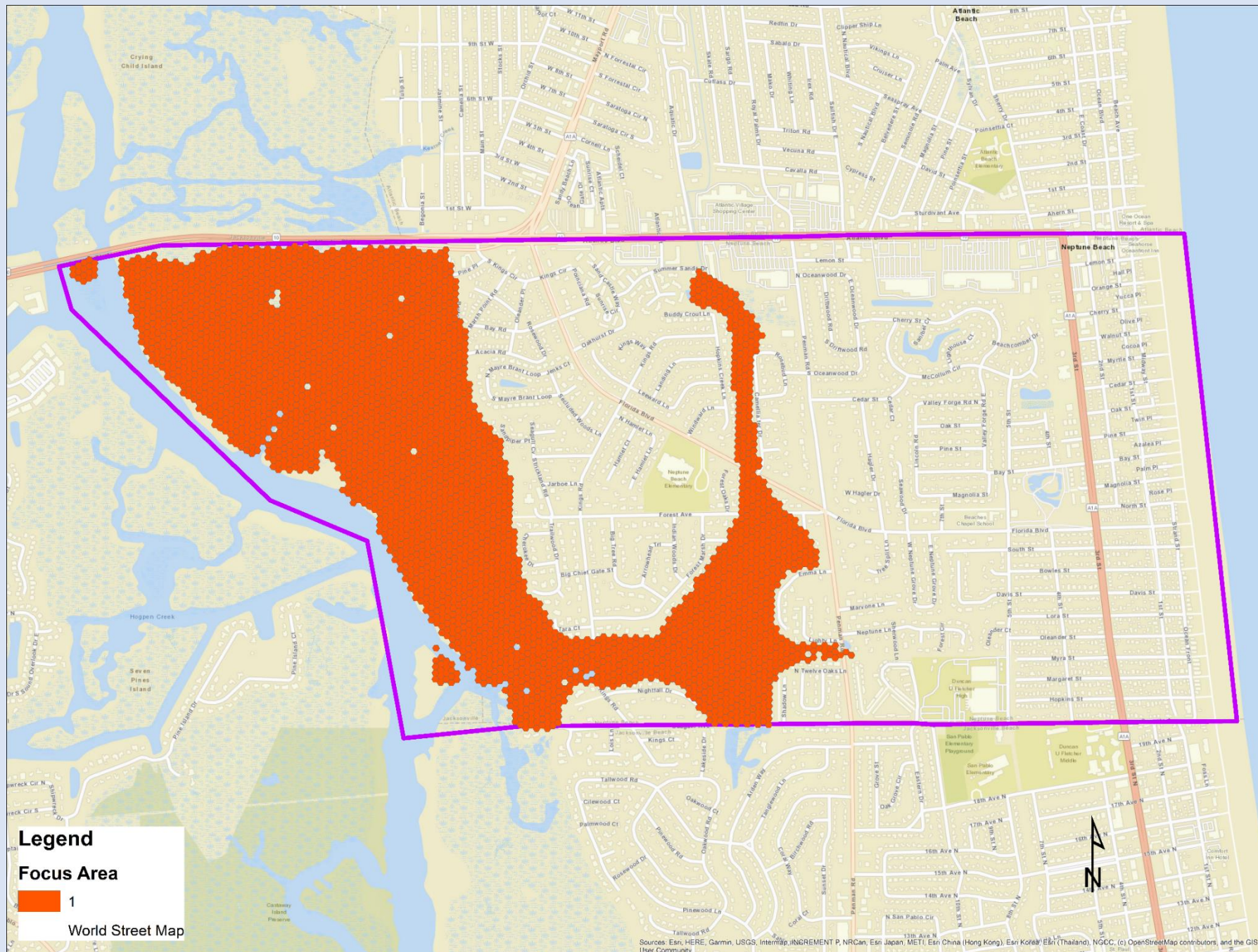


## Neptune Beach Hotspot Analysis

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.



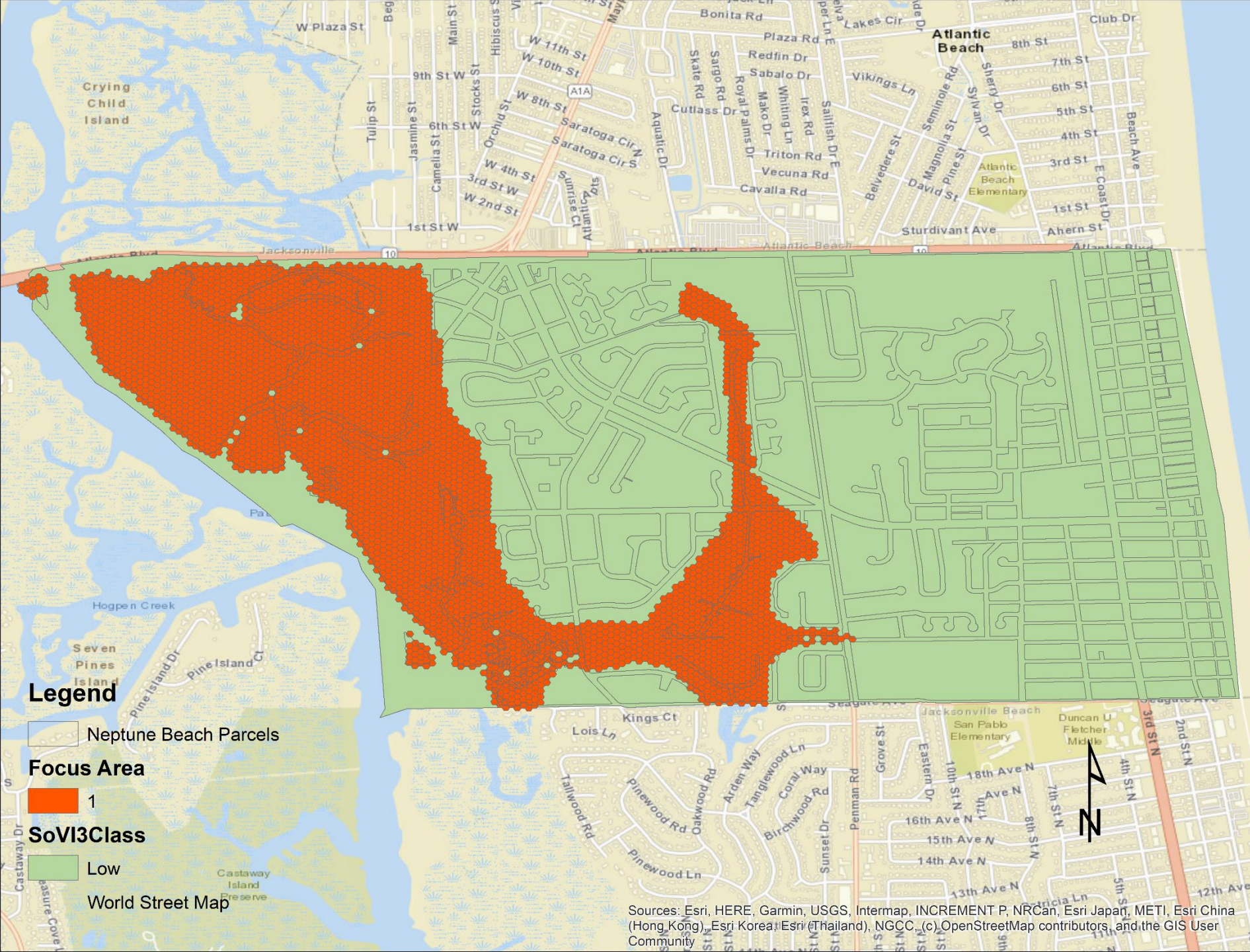




## Neptune Beach Potential Focus Area (~494 acres)

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>



# 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



# 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**

# 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.



# 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.)

### [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.







# ADAPTATION ACTION AREAS

## Policy.

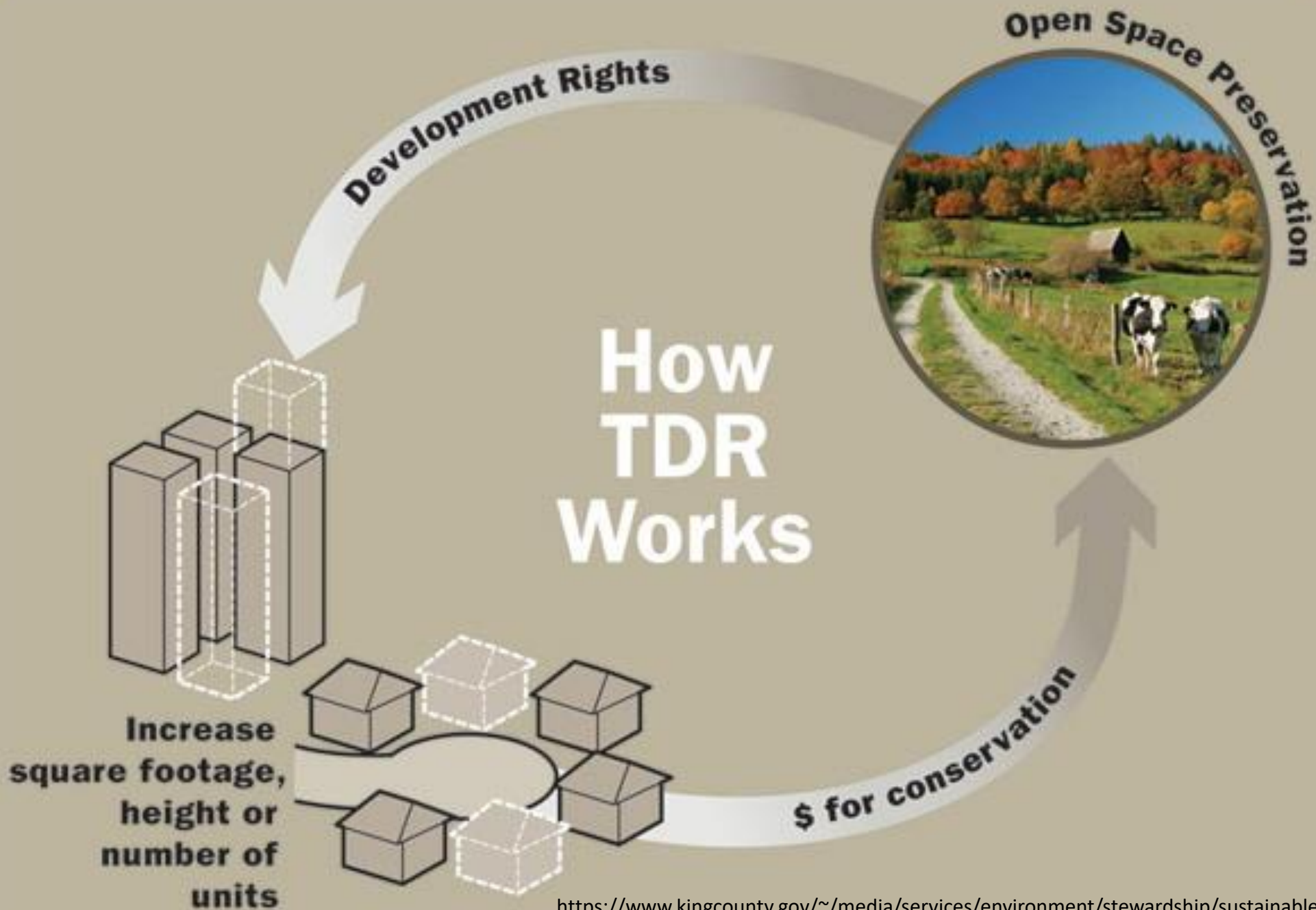
The land development regulations will provide criteria for an adaptation action area designation to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, stormwater runoff, and related impacts of SLR, including, but not limited to, areas

- where land elevations are below, at, or near mean higher high water;
- that have a hydrologic connection to coastal waters;
- that are designated as evacuation zones for storm surge;
- that inundation modeling indicates are vulnerable; or
- Identified for relocating vulnerable development or receiving transferred development entitlements associated with vulnerable areas.

# Types of Policy Tools:

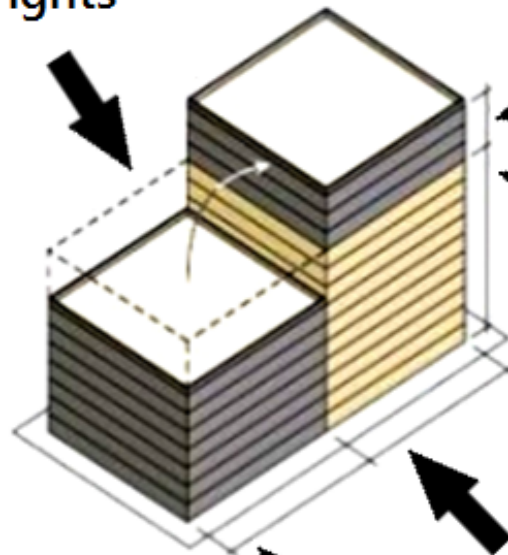
- Development regulations
- Land acquisition
- Density transfer provisions
- Financial incentives and penalties
- Land use analysis and permitting process
- Public facilities (including housing)
- Post-disaster reconstruction decisions
- Capital improvements





## Transferable Development Rights (TDR)

Unused development rights



Additional floor area from lot A

Permitted floor area on zoning lot B

Zoning lot A

Zoning lot B



<https://farmtorealestate.com/wp-content/uploads/2019/09/TDRFinal.png>

Transferable Development Rights are a mechanism to reduce new construction in crowded areas and shift it to less dense parts of the city.



**Landowner B**  
*Zoning allows  
7 additional units*

**Landowner A**  
*280 Acres =  
14 TDR Credits*

*\$28,000*

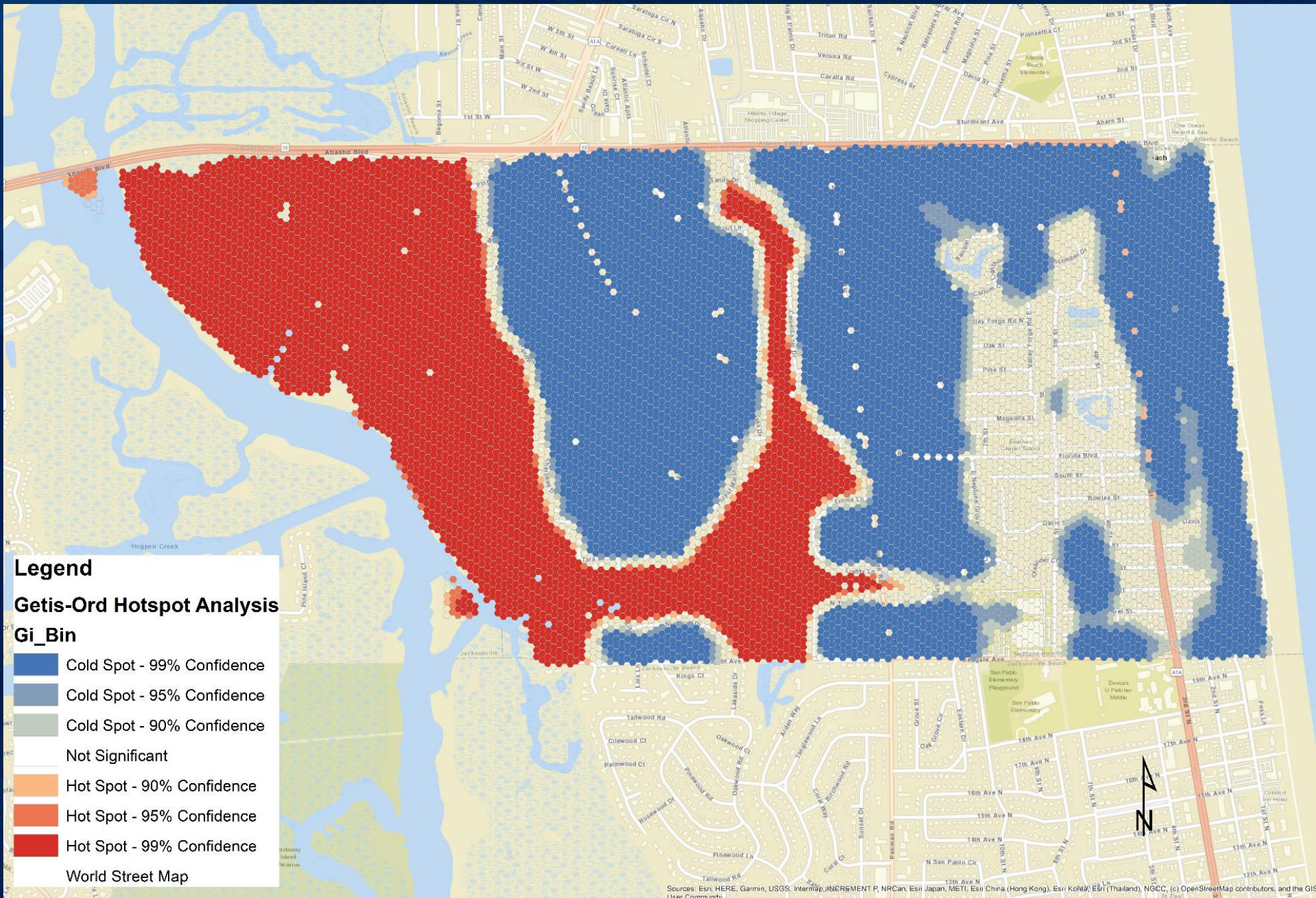
*7 Credits Sold*





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# ADAPTATION ACTION AREAS

## Policy.

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# Final Project Assessment and Report

**Goal: Summarize findings—**

- 1. Vulnerability assessment;**
- 2. Community engagement process;**
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# QUESTIONS???

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