



Town of
Leland

Growing our future. Nourishing our roots.

Resilient Coastal Communities Program



Introductions



**Mackenzie
Todd**

RCCP Program
Manager



**Adrianna
Weber**

Town
Engineer



**Dawn
York**

Project
Manager



**Mike
Robinson**

Hazard
Mitigation



**Todd
Kennedy**

Watershed
Planner



**Amanda
Zullo**

Community
Outreach



**Annie
Welch**

GIS
Analyst

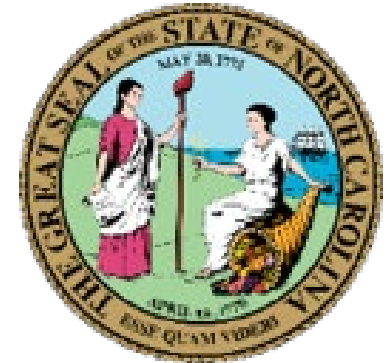
Overview of Resilient Coastal Communities Program (RCCP)

NCDCM



Developing the RCCP

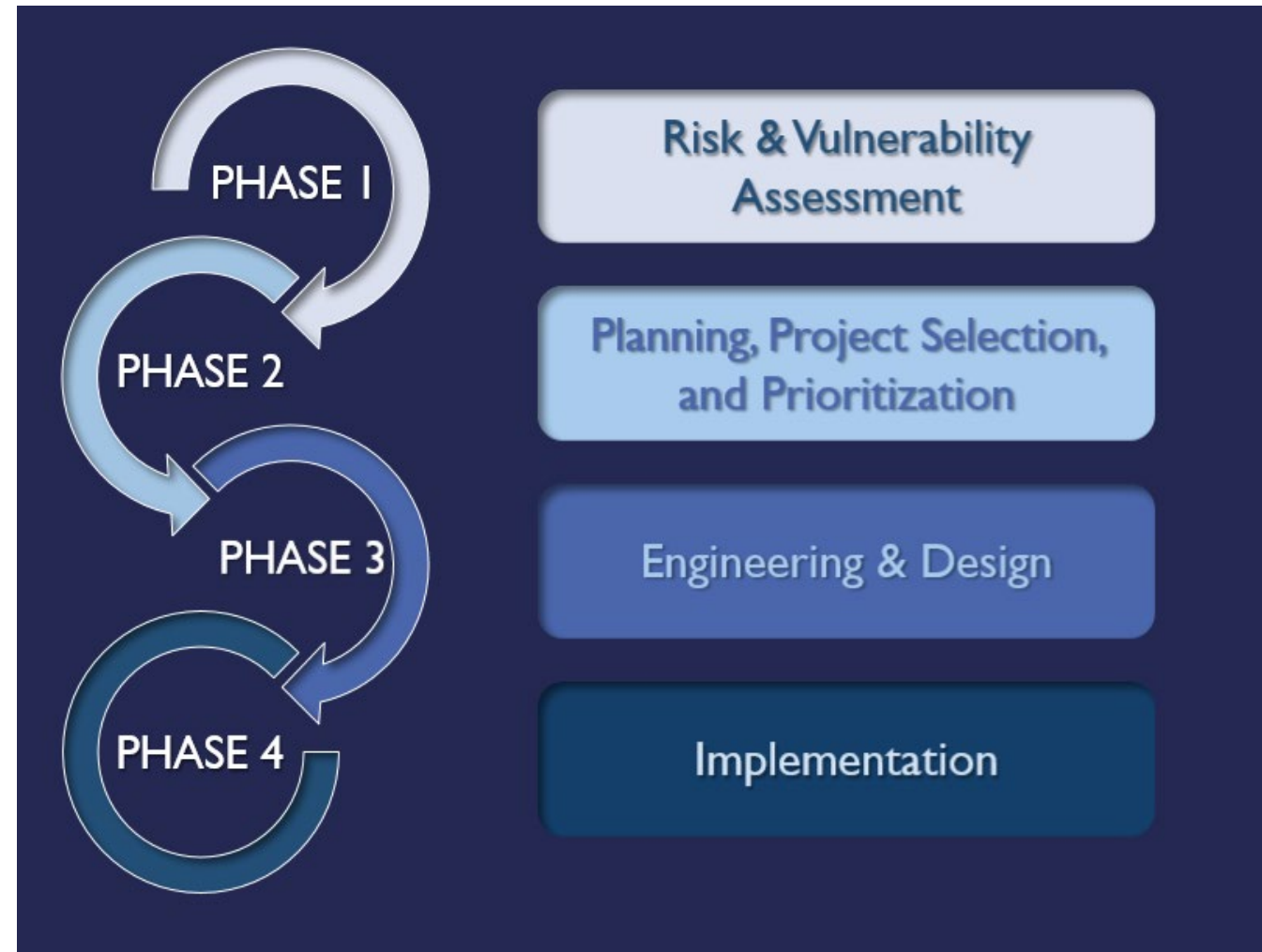
- Continuation of coastal resilience efforts at DCM
 - NC Coastal Resilience Pilot Program: RENA
 - DCM Coastal Adaptation and Resiliency Website
 - N.C. Coastal Community Resiliency Guide
 - 2019 Coastal Regional Resilience Workshops
 - EO80: N.C. Climate Risk Assessment and Resilience Plan
- Disaster Recovery Act funds, NFWF grant
- Solicited and incorporated feedback
 - 2020 Webinars, Survey, Open Comment
 - Program steering committee
- Looked to other state resilience frameworks & coastal management programs





RCCP Program Phases & Objectives

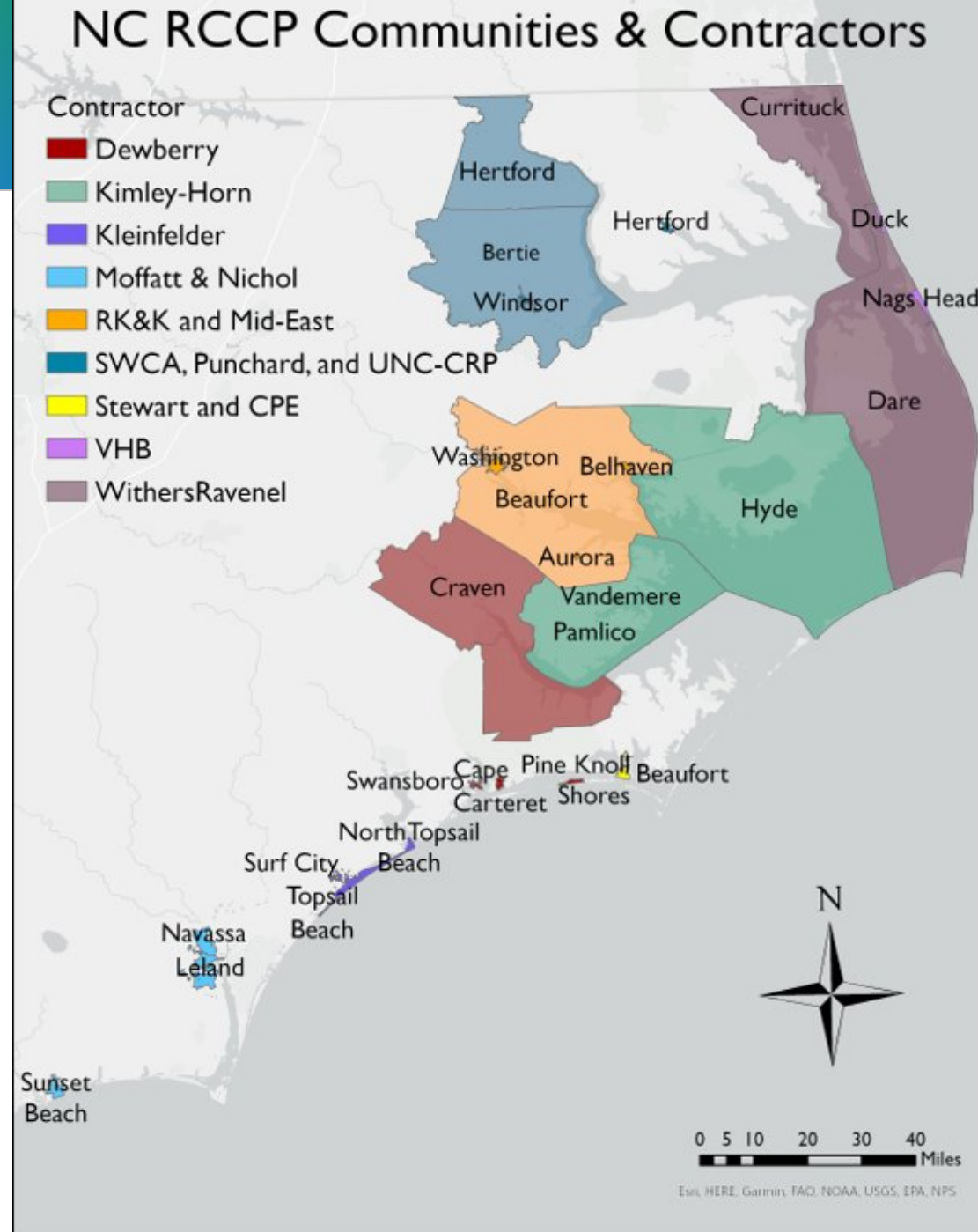
- Minimize barriers to resilience, including economic and capacity-related
- Provide funding and technical assistance for:
 1. Developing local Resilience Strategies, including risk and vulnerability assessments, and portfolios of prioritized resilience projects
 2. Project engineering, design, and implementation
- Promote **locally-driven, inclusive, and forward-thinking** approaches to traditional hazard mitigation planning
- Incentivize innovative solutions, like NNBS (Natural and Nature-Based Solutions)



2021 Program Participants

The competitive application period for communities wishing to participate in the program opened in November 2020 and closed on January 15. DCM received 30 applications representing 32 coastal communities (one application was submitted jointly by three communities).

DCM reviewed the community applications with program partners at the NC Office of Recovery and Resiliency (NCORR), NC Sea Grant, and The Nature Conservancy.





Thank you!

Mackenzie Todd
Coastal Resilience Specialist
DCM Point of Contact

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Application & Need

Town of Leland



Resilient Coastal Communities Program

- Location of Town of Leland
 - Susceptible to heavy precipitation events, erosion and riverine flooding
- Rapid growth
- Increase the Town's resiliency to ensure the prosperity of the Town for many years to come





Resilient Coastal Communities Program

- Risk and Vulnerability Assessment of Town's vulnerable areas and critical infrastructure
 - 10+ years since last risk and vulnerability assessment
 - Rapid growth of Town
- Future Projects Portfolio
 - Grant opportunities





Thank you!

Adrianna Weber

Town Engineer

Town of Leland Point of Contact

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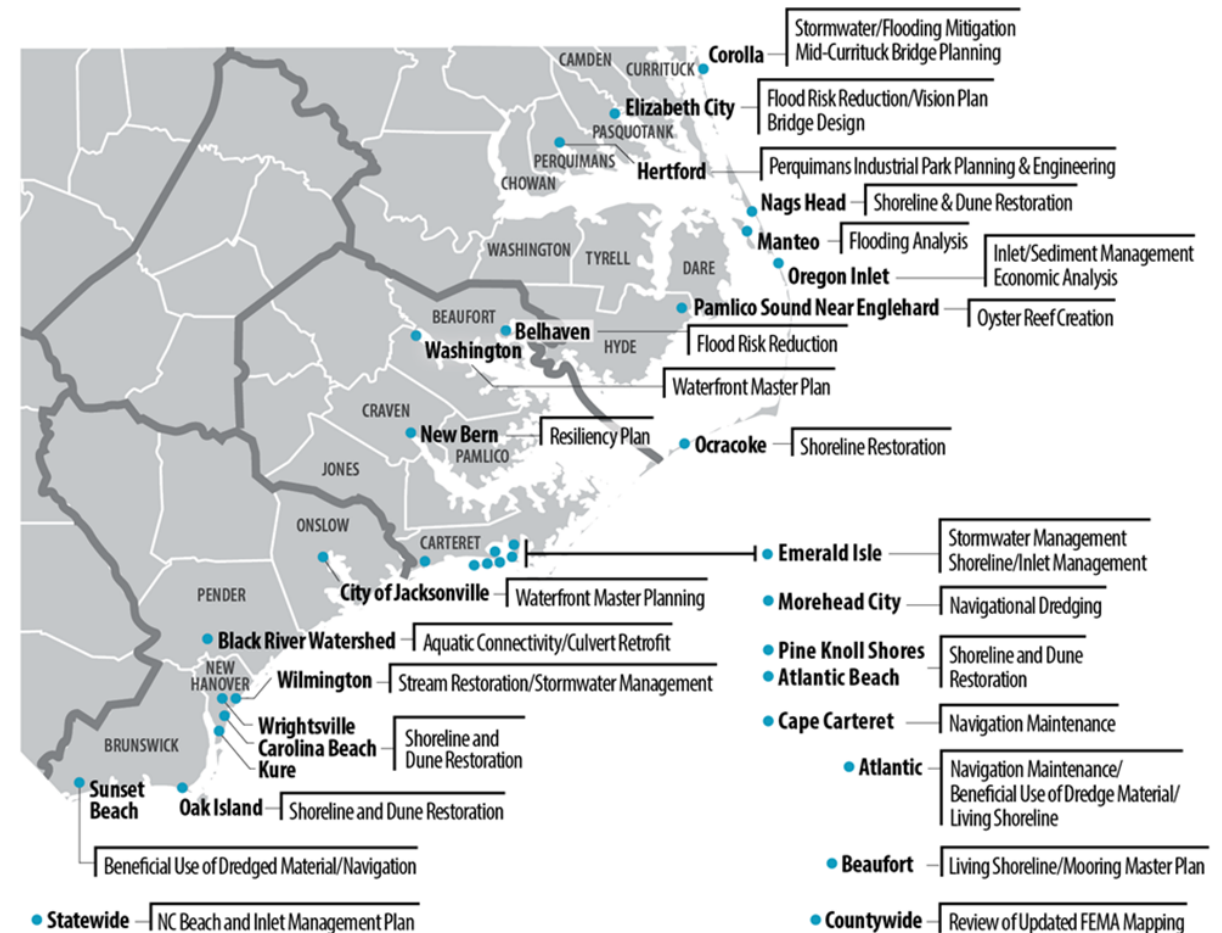
Scope of Work

Moffatt & Nichol



Overview

- Resiliency planning and design is about applying standards to withstand or recover quickly.
- M&N has provided resiliency design and related services in some of our most challenging environments.
- Resiliency is about creating responsible and practical solutions for communities.
- A true resiliency plan includes community needs and community desires.





Program Steps and Requirements

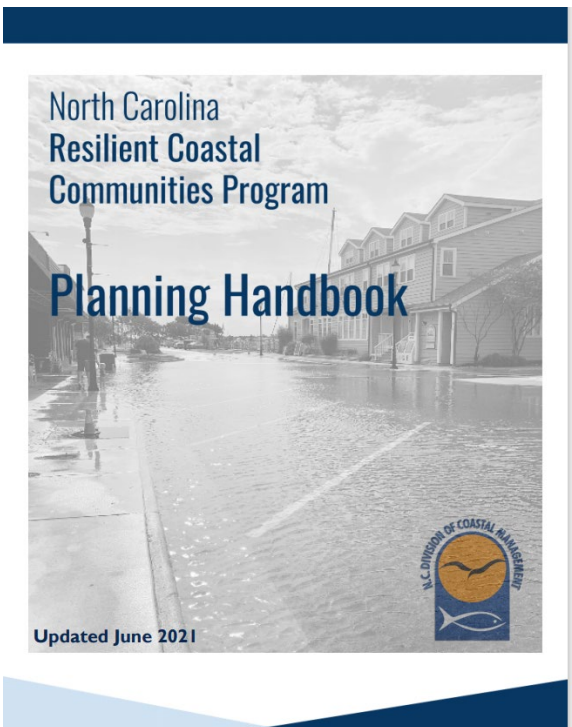
- **Phase 1: Community Engagement and Risk/Vulnerability Assessment**

- ✓ **Step 1: Develop a Community Action Team**

- Step 2: Set Vision and Goals
- Step 3: Review Existing Local Plans & Efforts
- Step 4: Develop a Community Engagement Strategy
- Step 5: Map Critical Assets and Natural Infrastructure
- Step 6: Conduct a Risk and Vulnerability Assessment

- **Phase 2: Planning, Project Identification, and Prioritization**

- Step 1: Identify a Suite of Potential Solutions
- Step 2: Consolidate and Prioritize Projects





Deliverables and Project Duration

- **Deliverables**

- Risk and Vulnerability Assessment Report
 - Quantitative and qualitative risk assessment performed
 - Vulnerability of critical assets, natural infrastructure, and vulnerable populations
- Project Portfolio
 - Series of options aimed at reducing exposure and sensitivity and increasing adaptive capacity to hazards
- GIS Products
 - Maps provided in map package format

- **Project Duration**

- This contract will terminate on January 31, 2022.



Proposed Schedule

Phase	Step	Task	Schedule
1	1	Develop a Community Action Team (CAT)	May 2021
	2	Set Vision and Goals	July 2021
	2a	CAT meeting #1	July 7, 2021
	3	Review Existing Local Plans	May – July 2021
	4	Develop Community Engagement Strategy	June 2021
	5	Map Critical Assets/Natural Infrastructure	June – July 2021
	5a	Public Meeting	August 2021
	6	Conduct a Risk and Vulnerability Assessment	July – September 2021
			Community Action Team meeting #2
2	1	Identify a Suite of Potential Solutions	October 2021
	1a	Community Action Team meeting #3	October 2021
	2	Consolidate and Prioritize Projects	November 2021
	3	Finalize Report/CAT #3	January 2022

Overview

Hazard Mitigation Planning / STAPLEE Method



Hazard Mitigation Planning

- Hazard mitigation planning has long been a foundational element in North Carolina's resilience to natural hazards
- This program will build upon, but go beyond, "traditional" hazard mitigation planning practices
- This means we will utilize existing hazard mitigation resources and principles, but enhance and expand our resiliency efforts for the Town of Leland





STAPLEE Method

- One tool we will recommend using is the **STAPLEE** Method for project and activity prioritization
 - **S** = Social
 - **T** = Technical
 - **A** = Administrative
 - **P** = Political
 - **L** = Legal
 - **E** = Economic
 - **E** = Environmental



Overview

Outreach Strategy



Outreach Strategy Overview

- **Strategy outlines a plan for engaging Leland during the following RCCP phases:**
 - Community Engagement and Risk / Vulnerability Assessment (Ph. 1)
 - Planning, Project Identification, and Prioritization (Ph. 2)
- **Engagement efforts are a critical part of the planning process and rely on support from a number of parties:**
 - Hybrid outreach strategy
 - Engage groups across the social spectrum
 - Assist with identifying and prioritizing natural and nature-based projects
 - Collaborative effort between: Town of Leland, M&N, CAT, and Stakeholders





CAT's Roles & Responsibilities

- **Phase 1**

- Help develop a **community-specific vision** and set of **goals** to establish the local context for this program and guide subsequent steps
- Conduct a **review of existing plans, ordinances, policies, and programs** to identify work that has already been completed
- Select **critical assets and natural infrastructure** to include within the risk and vulnerability assessment
- Determine what **levels of risk call for actions** to reduce that risk and increase resilience

- **Phase 2**

- Work with us and the community to identify, plan, and prioritize a combination of policy, nonstructural, structural, and hybrid actions, including the use of natural and nature-based solutions



Outreach Project Schedule*

Milestone	Format	Date
CAT Meeting #1	Hybrid Meeting	July 2021
Survey	Survey Monkey	Mid-July to Mid-August 2021
Public Meeting #1 Progress Report to DCM	Hybrid Meeting	August 2021
Draft Report to Town of Leland	Deliverable	September 2021
CAT Meeting #2	Virtual Work Session**	October 2021
Final Report to Town of Leland	Deliverable	December 2021
CAT Meeting #3	Virtual Meeting**	January 2022

* Dates are subject to change

** Format of CAT Meetings 2 and 3 will be determined after first CAT Meeting



RCCP Tools, Techniques & Strategies

- **Hybrid Meetings**
 - Community Action Team
 - Public Meeting
- **Project Data / Resources**
 - Webpage with Planning Resources
 - Project Information Fact Sheet
 - Public Participation Survey
- **Outbound Communication**
 - Social Media
 - Local Newspaper, Press Releases, Printed Material



LELAND RESILIENT COASTAL COMMUNITIES PROGRAM
Project Information Fact Sheet

The Town of Leland is currently participating with the North Carolina Division of Coastal Management (DCM) in the Resilient Coastal Communities Program (RCCP) to enhance resiliency to natural hazards. Building resiliency to natural hazards is vital for communities to help maintain quality of life, healthy growth, durable systems, and conservation of resources for present and future generations.

Purpose of the Project

The purpose of this project is to build a more resilient Leland community. Several barriers to developing resiliency to coastal risks exist, including economic and capacity constraints that have been exacerbated in recent times. This project aims to enhance resiliency by assisting communities with risk and vulnerability assessments; developing, prioritizing, and readying coastal resilience projects for implementation; and providing technical resources to link communities to funding streams for project implementation.

Involvement in the Project

Public Survey: Initial questionnaire serving to gauge priorities and preferences of general public as a baseline for project plans.

Public Meeting: Consisting of a hybrid format, with the options for the public to engage either virtually or in-person, this meeting will provide an overview of the project and a discussion of community vision and goals. Input, comments, and additional ideas are encouraged from members of the community.

In partnership with:  

What does this mean?

Resiliency refers to not only the ability of a community to anticipate, prepare for, respond to, and recover from threats, but to thrive amidst changing conditions or challenges.

Risks refer to multi-hazard threats to communities such as flooding, storm surge, or sea level rise that may occur amidst storms and a changing climate.

Vulnerabilities refer to the degree of exposure to a community's associated risks, and the means to cope with stressors or disasters that arise from them.

Project Schedule

- **Public Survey:** Mid-July to Mid-August 2021
- **Public Meeting:** August 2021
- **Final Presentation to Town:** December 2021

Questions / More Information

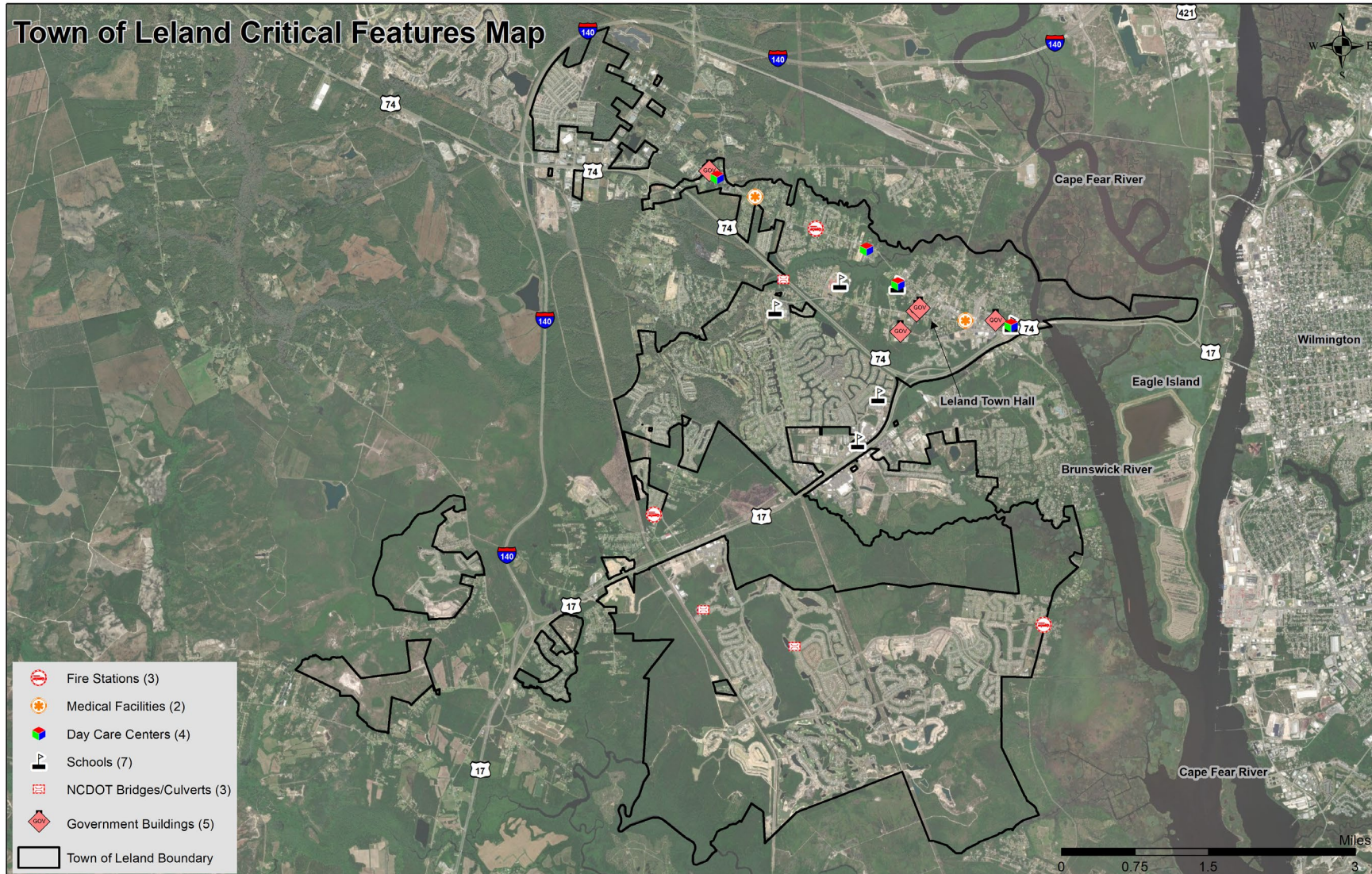
Please visit our website or contact:
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910.408.3052

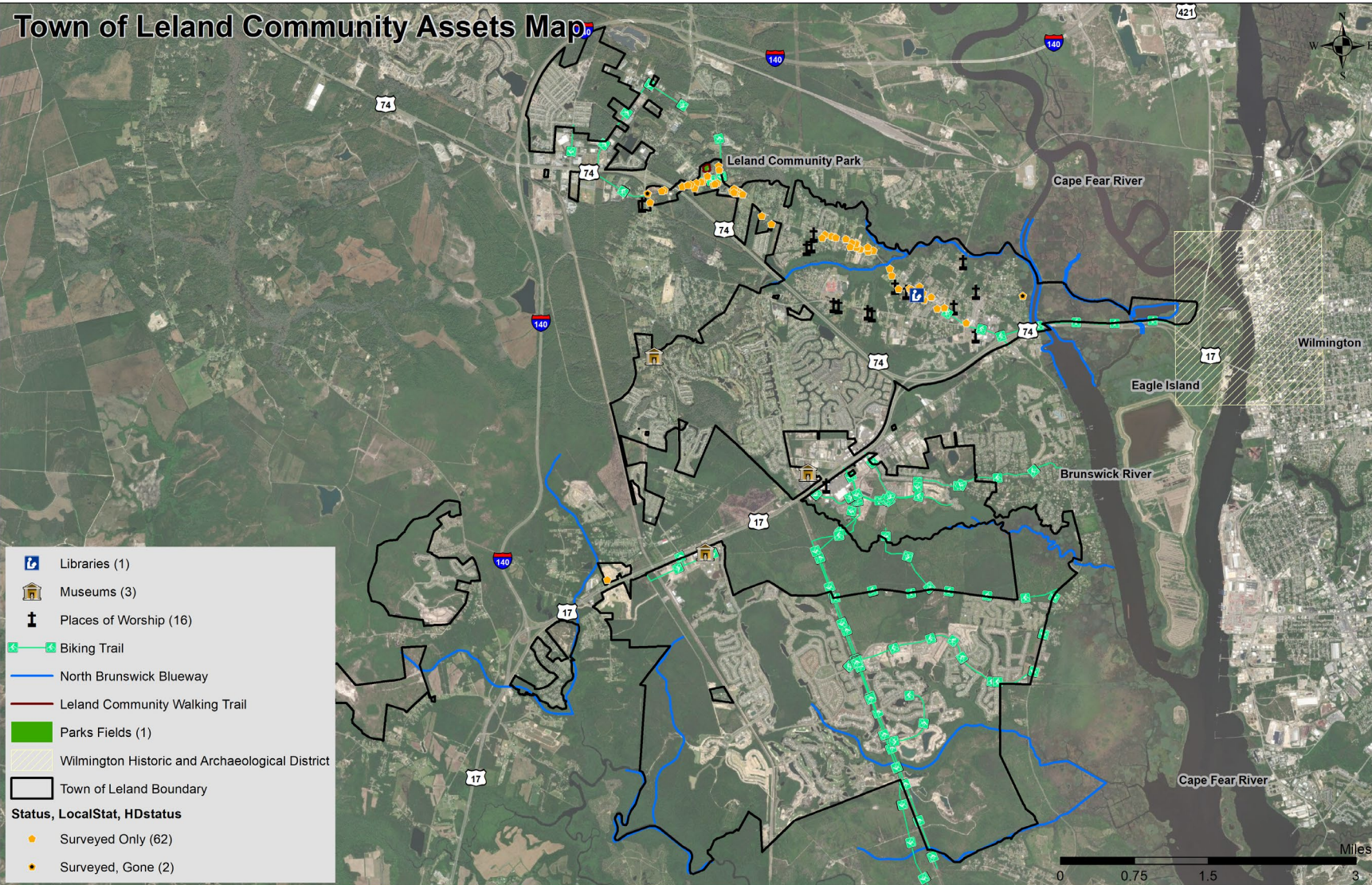
In the meantime, please check the [Town of Leland's website](#) over the course of the project to stay updated on the latest news.

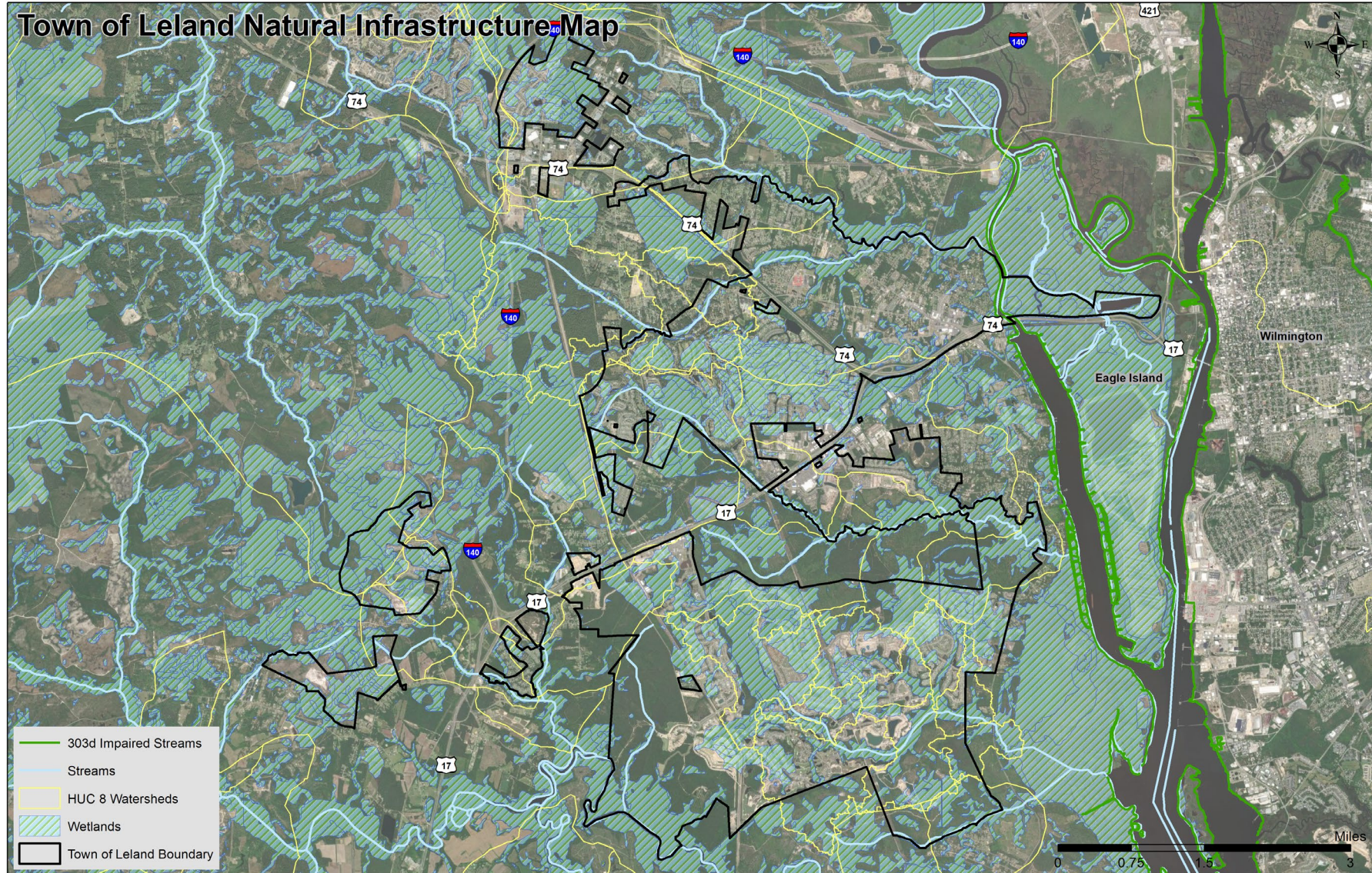


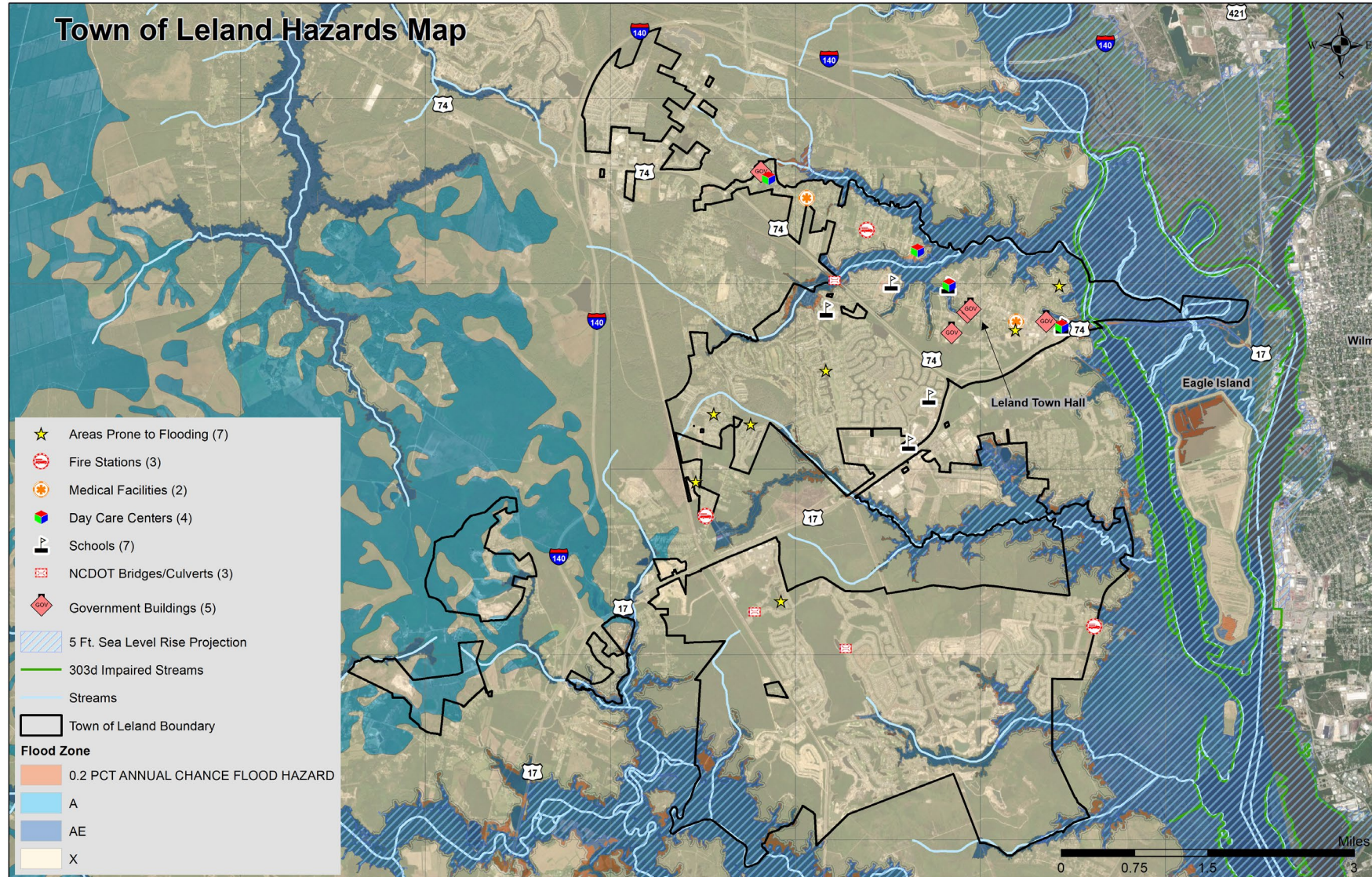
Preliminary Results

GIS Data Collection











Available Data

Critical Features:

- Fire Stations (NC DOI)
- Government buildings (Esri)
- Day Care Centers (Esri)
- Schools (Esri)
- NCDOT Bridges/Culverts (NCDOT)
- Roads (Brunswick County Open Data)
- Leland Town Limits (Brunswick County Open Data)

Community Assets:

- Places of Worship (Esri)
- Libraries (Esri)
- Museums (Esri)
- Biking Trails (Brunswick County Open Data)
- Blueway (Brunswick County Open Data)
- Walking Trail (Brunswick County Open Data)
- Parks (Brunswick County Open Data)
- NC State Historic Preservation Sites (NC SHPO)
- National Register of Historic Places (National Park Service)

Hazards Map:

- Streams (Brunswick County Open Data)
- Areas of Concern (Personal Communication, Adrianna Weber)
- 303d Impaired Streams (NCDEQ)
- Flood Hazard Zones (NC Flood Risk Information System)
- Sea Level Rise (NOAA)

Natural Infrastructure:

- Wetlands (NCDEQ)
- HUC 8 Watersheds (National Flood Hazard Layer)

Other:

- Zoning information (Brunswick County Open Data)
- Demographic Information (U.S. Census Bureau)

Other Cont.

- Building Footprints (Brunswick County Open Data)
- Parcels (NC OneMap)
- Managed Conservation Areas (NC Natural Heritage Program)
- Digital Elevation Model (NC Emergency Management)
- Water Supply Watersheds (NCDEQ)
- Outstanding Resource Waters (NCDEQ)
- High Quality Waters (NCDEQ)
- Lift Stations (Town of Leland)
- Sewer Lines (Town of Leland)
- Water Lines (Town of Leland)
- Water Mains (Town of Leland)

Vision and Goals

Vision Statement Development



Vision Statement Development

Vision: aspirational statement for where the community wants to be in the future.

Example:

Create a coastal resilience plan for the Town of Leland to establish a resilient community where: structures and critical infrastructure in the flood zone are adapted to withstand hazards and protected by healthy ecosystems.



Align Goals

Goals: specific, measurable goals to help identify steps that can be taken to achieve the vision.

Examples:

1. Improve digital resources to communicate risk and help with planning efforts.
2. Increase staff capacity to support training and analyze stormwater management system.
3. Complete a comprehensive watershed plan.

Next Steps

Discussion



What's Next?

1. Identify and document additional data and resources necessary to complete vulnerability and risk assessment.
2. Develop a community-specific vision and goals for this program to ensure values and priorities are considered during the entire process.





Discussion

- Are there any data sources that we have not mentioned that we should be aware of? Known gaps in data, plans, etc.?
- What are your thoughts on the engagement strategy as presented? How do we best reach out to vulnerable communities?
- We would like to get your initial thoughts on the greatest risks/vulnerabilities/priorities to the Town.



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