



SWANSBORO
FRIENDLY CITY BY THE SEA *North Carolina*

CAMA LAND USE PLAN UPDATE



TOWN ADOPTED: JANUARY 22, 2019
NC DCM ADOPTED: MAY 6, 2019



PUBLIC INVOLVEMENT & OUTREACH

Extensive public participation was a key focus and component of this LUP. For more on the structure of public engagement, see Appendix A. Overarching themes from each engagement and outreach effort are summarized below. This information was used to inform the update of the Plan.

STAKEHOLDERS

Residents, property owners, and business people shared their thoughts and perspectives related to past, present, and future issues, needs, and trends. Major themes and findings included:

- » **Charm, history, and community character:** People deeply treasure the charm of their historic coastal town. There is an acknowledgment of the importance of the history of the town and what people perceive distinguishes it from other towns and settlements in the area. The tightly-knit community also values its small-town friendliness and feel and wants to preserve that moving forward.



Steering Committee Meeting

- » **Downtown:** The historic downtown is treasured and its preservation is important. This theme was echoed throughout the planning process.
- » **Traffic Congestion and NC 24:** Although it is the primary means of transportation through and within the community, NC 24 known as Corbett Avenue locally, is perceived as unattractive. It also divides the community, primarily posing a barrier to non-motorized mobility.
- » **Environment and Wetlands:** Residents recognize that quality of the environment, especially wetlands, coastal marshes, and water quality in the White Oak River is the primary force behind the growth and economic success of the area. Preservation of wetlands and environmentally sensitive areas is important.
- » **Managing Growth:** The rate of growth in recent years is perceived as fast. Some residents would prefer to see a halt to all new development, although others recognize that the only feasible solution is to manage that growth effectively. The quality and attractiveness of recent development are perceived as substandard compared to previous development. Stakeholders want new development to be of high and lasting quality.
- » **Open Space and Agriculture:** The community wants to make sure that agriculture has a place and is not entirely consumed by development. There are still a few working farms, and owners have expressed a desire to continue them in agriculture. Open spaces and views are also important.
- » **Maintain Quality of Life:** The quality and pace of life in Swansboro is treasured by residents, and a desire to

preserve it as it is has led some residents to slow new development. Other residents believe that a balance is possible, if growth is managed appropriately.

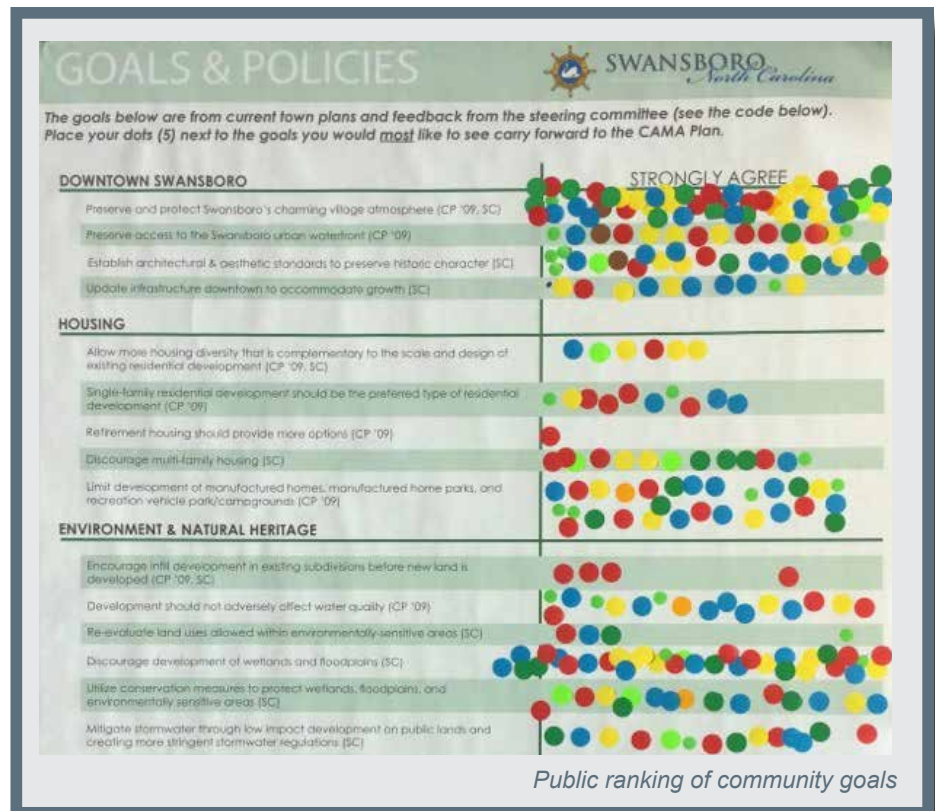
- » **Parks and Recreation:** Recent and significant gains in parks and recreational facilities are recognized as successes. Stakeholders would like to continue to see gains made in these areas.

STEERING COMMITTEE

Throughout the planning process the steering committee reviewed and evaluated the information that forms the basis for this update. Major themes and findings of their particular efforts are listed below.

SWOT ANALYSIS

A Strengths, Weaknesses, Opportunities, and Threats (SWOT) was undertaken with the Steering Committee to identify issues and opportunities impacting the community. The following themes stood out:





Screenshot of project website

- » **Strengths:** Tightly-knit and motivated community; the charm, heritage, and uniqueness of the historic downtown; waterfront and natural resources, including the state park; vibrant local business community.
- » **Weaknesses:** NC 24 traffic, unsafe intersections, and concerns about congestion; limited tax base of the community; infrastructure concerns, especially related to water, wastewater, and stormwater; traditional zoning code not providing high quality development; a lack of diversity in the economy; and a lack of pedestrian and bicycle connectivity.
- » **Opportunities:** Continue to capitalize on tourism, especially related to the waterfront, natural resources, and historic/cultural tourism; taking a new and focused approach to growth management through planning and coordination; enhance non-automobile connectivity; enhance the appearance of NC 24; and develop a charter fishing fleet.
- » **Threats:** Growing too fast, especially without sufficient growth management provisions; limited tax base to pay for services; negative perception of growth;

continuing degradation of traffic congestion on NC 24; lack of sufficient building character regulation to ensure high quality development; threats to the natural environment, especially wetlands and the waterfront; signage regulation.

PUBLIC OPEN HOUSE & HEARING

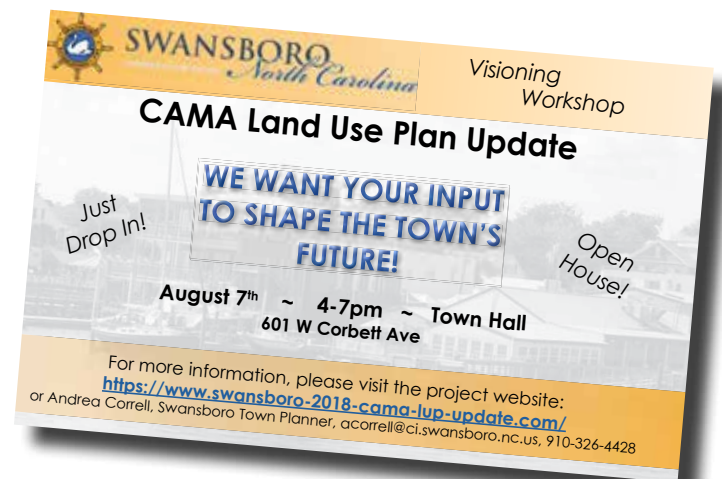
Overall, major themes and findings from the well-attended public open house generally reinforced themes that were heard in previous outreach and knowledge-gathering efforts:

- » Preserve historic character and village charm
- » Clean up appearance of NC 24
- » Enhance non-motorized connectivity with sidewalks, bike paths, and access to the water.

» Protect wetlands and environmentally sensitive areas

- » Build and maintain infrastructure and services to keep pace with growth

More specific comments focused on increasing handicap access in the downtown, and generally making Swansboro more bike- and pedestrian-friendly, including connections for these user-types across NC 24. A connection from downtown, along major corridors, and to the state park was a common comment, as well as



Workshop invitation



DEMOGRAPHICS

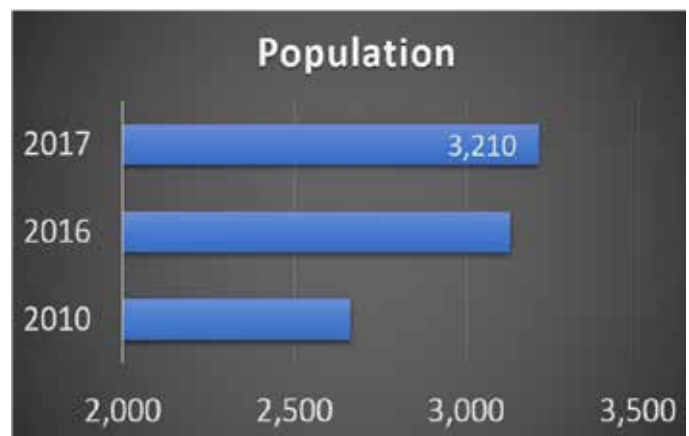
Because Swansboro is a fairly small town by most standards, it is often difficult to accurately estimate the demographic statistics. The information below primarily is drawn from the most recent American Community Survey which is produced by the U.S. Census Bureau. Some data is also taken from the ESRI OnTheMap, which estimates data of irregular geographies, but is also derived from the most current U.S. Census data available.

POPULATION & HOUSING

Population growth in the town limits has been substantial, increasing at approximately 2.9% annually since 2010 (compared to 1.1% growth in NC). The share of households with children has not changed significantly since 2010 and remains at 28.5%.

The median age is 37.9 years old, which is younger than it was in 2010. The median age in the state and the nation has increased over this same period.

Median home value in the town was \$188,800 in 2016, and has declined 8.9% since 2010, but is



Source: American Community Survey 2016 and US Census.

RESILIENCY AND CLIMATE ADAPTATION

Coastal communities are particularly vulnerable to storms, waves, and changing climatic conditions, including sea level rise. In parallel with the CAMA Land Use Plan update process, the town also underwent a Vulnerabilities, Consequences, & Adaptation Planning Strategies (VCAPS) process.

Developed by NOAA's Sea Grant program, this interactive planning process identifies areas that are prone to flooding and storm damage. With such knowledge, elected officials can then make policy decisions to lessen future damage. The Sea Grant program at N.C. State University, the state's Division of Coastal Management, the Nature Conservancy and the N.C. Coastal Federation helped the town perform the analysis as part of the LUP update. Swansboro is among a handful of towns along the N.C. coast that has taken this critical step.

The town experienced a hurricane in September 2018, that further crystallized the importance of climate resiliency and adaptation as crucial to the ongoing success and survival of the town.

CLIMATE VULNERABILITY AND SEA LEVEL RISE

Due to Swansboro's coastal legacy and unique relationship to the sea as a coastal fishing village, the changing climate and increasing storm intensity coupled with sea level rise will have a

greater impact than on other, more inland towns which are further removed from the coast. The town has identified conservation of coastal areas, wetlands, and floodplains as important not only for preserving quality of life, but also with respect to climate resiliency. By incorporating climate resiliency planning into their long-range planning efforts, the Town has taken concrete efforts to prepare for an uncertain climate future.

The resulting decision to cluster development away from environmentally sensitive and Conservation Priority Areas (CPAs), coupled with changing floodplains and rising sea levels, will have effects on the physical environment and land use within the town. The town should also consider these factors when making public investments and locating infrastructure, balancing risk against necessity.

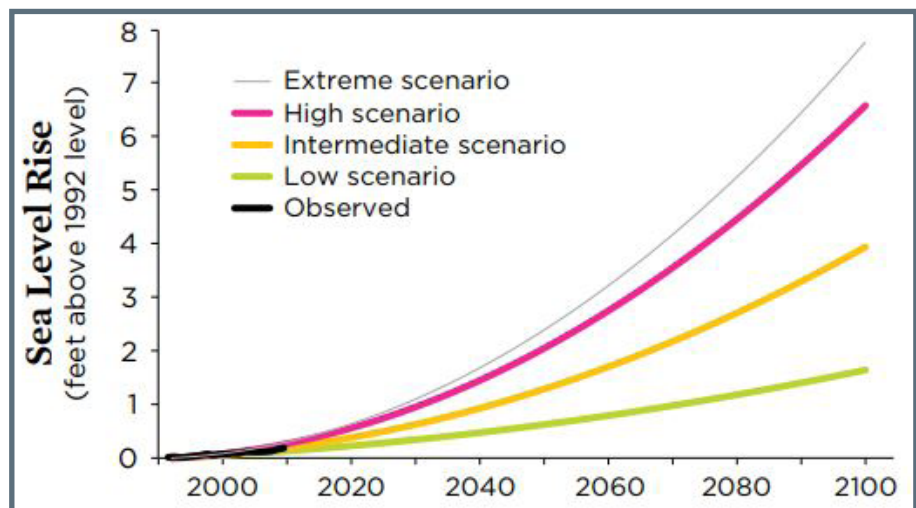
During the creation of this plan, the town weathered a significant hurricane (Florence) that caused tremendous amounts of damage across southeastern North Carolina. During the course of the LUP, projections for sea level rise were released that affirm that future flooding events will likely be more extensive and more damaging than in the past. In the Swansboro area, sea level has generally risen about 3 mm per year for decades according to NOAA tide gauge data.

NOAA estimates that global sea level will rise nine more inches by the end of the century if countries immediately begin reducing the amount of pollutants that are triggering the warming of the atmosphere.

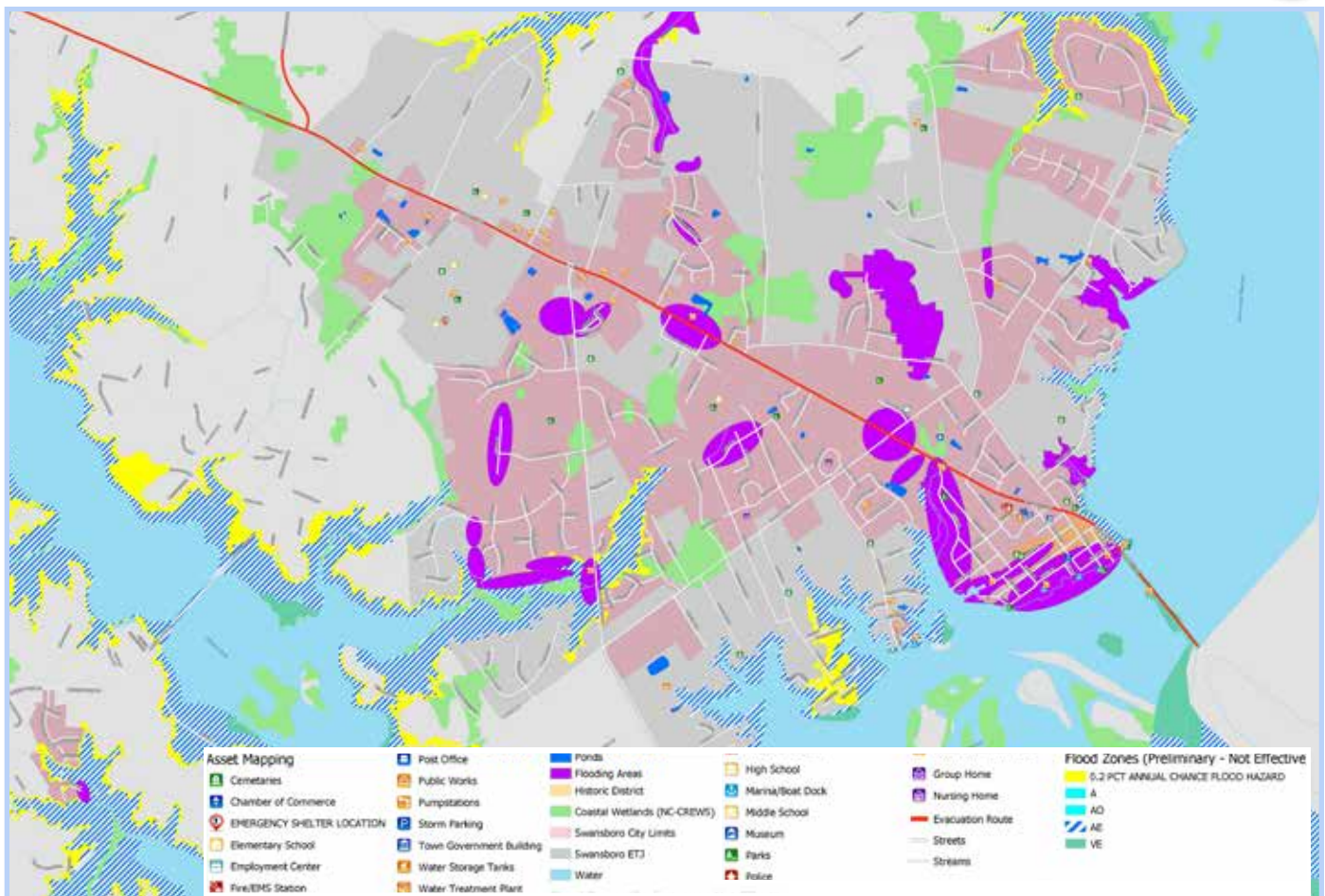
If nothing or little is done, NOAA scientists estimate that the sea could rise almost nine feet by 2100.

FLOODING

As sea levels rise, some seaside and lower-lying parcels will become inundated (either entirely or periodically and chronically) and floodplains will expand and push inland. Given that the lifespan of a typical "stick-built" structure (which includes most residential homes and smaller multi-family structures) is 60-100 years, and that sturdy commercial structures can last at



Sea Level Rise projections. (Source: Third and Fourth National Climate Assessment)



VCAPS Asset Mapping (Source: NC Sea Grant)

least the same amount of time, it is important to consider what the future environment will be for these structures when the next hurricane comes through the area. Some building code requirements (such as additional strapping or waterproofing) can be retrofitted more easily than others (such as raising the base floor elevation out of the floodplain).

HISTORIC STRUCTURES

During the hurricanes, the historic waterfront central business district was hit hard by storm surge and wave action. Many of the structures were damaged, nearly destroying the historic Ice House restaurant.

Recovery and rebuilding will be to more strict development standards, including higher base floor elevations to get above the floodplain. These upgrades will eventually change the appearance of the downtown area somewhat, but will help ensure that it can continue to flourish in the coming years.

Much of the low-lying area that comprises Swansboro's ETJ is proposed for inclusion in the Conservation Priority Area (CPA) FLU overlay. The CPA is proposed for reduced density/intensity, in part to reduce the vulnerability of the town in future storm events. The historic downtown, in particular, is within an area that is in the 100-year floodplain and the identified storm surge areas for hurricanes. Even though the Traditional Town Center (TTC) FLU is proposed to continue in this area, it will be dependent, in part, on climate vulnerability mitigation actions by the town, and potentially also by a slow migration of the business district up main street and toward higher ground. This slow process will occur over decades, through individual decisions by business owners, property owners, and town leadership. Continuing to reduce density in the areas identified as floodplains and CPA will provide increased resiliency to storm events and flooding.

GOALS & OBJECTIVES

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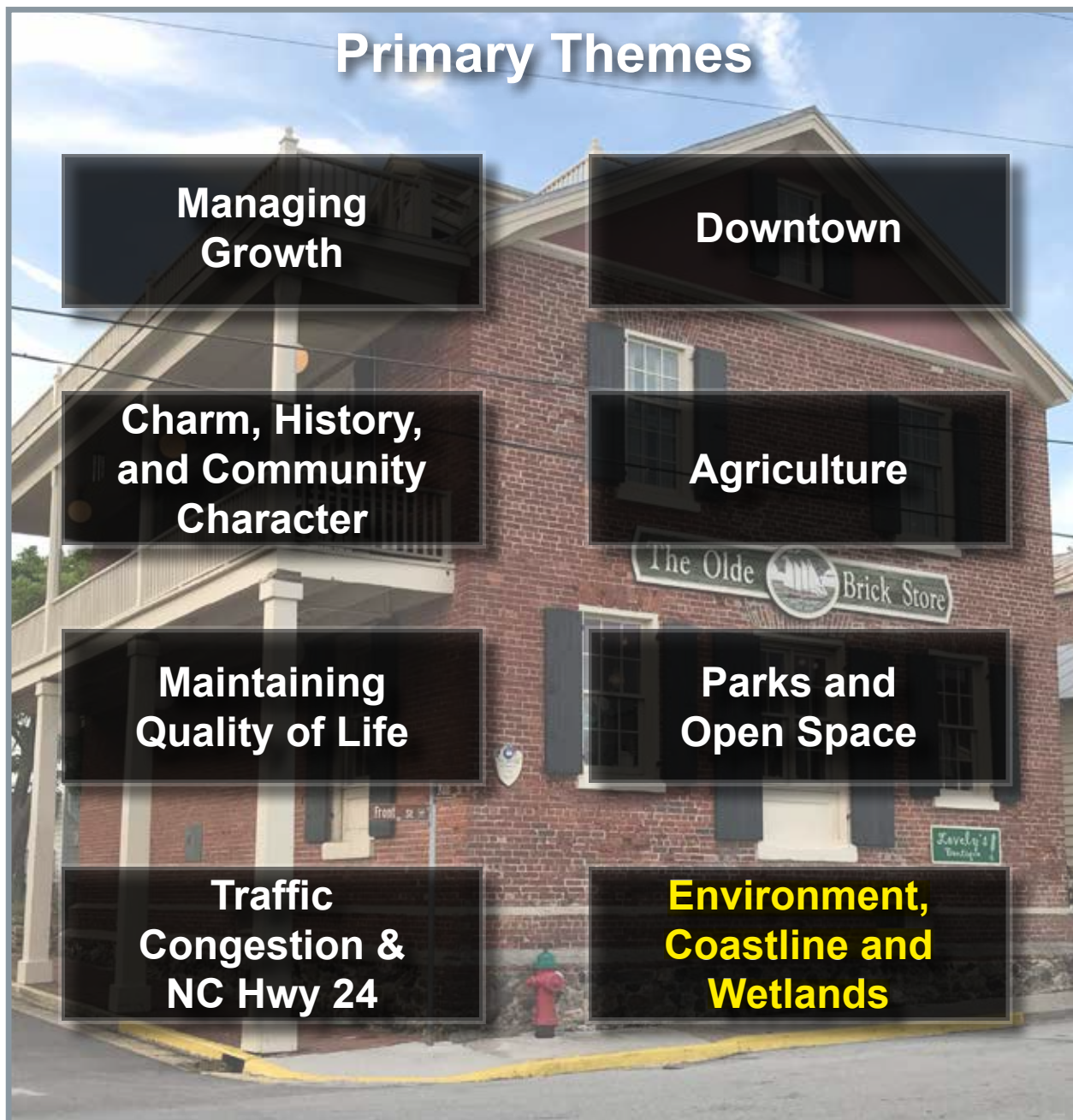
VISION

The town's vision comes from the recently adopted (June 2018) Economic Development Strategic Plan, and states:

Swansboro, the quaint and friendly city by the sea, is recognized by visitors and residents as a gem of North Carolina's coast. All who know and appreciate Swansboro celebrate the town's relaxed waterfront lifestyle, abundance of thriving, family-friendly, locally-owned businesses, recreational opportunities, and a broad range of historic, arts, dining, and shopping opportunities. The town remains committed to preserving its heritage, environment, and small-town appeal.

GOALS & OBJECTIVES

The goals and objectives were developed through extensive public outreach and input, and will be used to guide re-zonings and investment decisions. They will also be used to guide land use policy decisions in the town. Primary themes from all public outreach are summarized below.



1 PRESERVE AND ENHANCE SWANSBORO'S CHARMING COASTAL CHARACTER

- » Extend historic development aesthetic/elements of downtown
- » Establish architectural & aesthetic standards to preserve historic character
- » Foster and improve the town's sense of place through balanced growth that can attract residents, visitors and business investment

2 FOSTER GROWTH THAT SUSTAINS AND ENRICHES THE COMMUNITY

- » Encourage context sensitive residential development
- » Ensure infrastructure and public services keep pace with growth
- » Extend the coastal village design concept to key locations
- » Manage multifamily development in locations that create a walkable, mixed use village and promote social interaction

3 PRIORITIZE THE NATURAL ENVIRONMENT THAT IS KEY TO SWANSBORO'S QUALITY OF LIFE

- » Utilize conservation measures to protect wetlands, floodplains, environmentally sensitive areas and to enhance water quality
- » Utilize conservation-oriented measures
- » Encourage water-based recreation and tourism
- » Maximize and clarify access to the waterfront
- » Make a "place" for people that takes advantage of the unique location and natural assets
- » Improve and protect the town's natural environment in order to attract new residents and maximize the town's economic development potential

4 TRANSFORM NC 24 INTO A WELCOMING THOROUGHFARE TO SWANSBORO AND ITS HISTORIC DOWNTOWN

- » Encourage mixed use development at nodes/key intersections; discourage additional strip development
- » Promote placemaking and an attractive, cohesive development style along NC 24
- » The gateway corridor should be designed as a tree-lined boulevard, with trees and other landscaping along the median and both sides of the road

5 DEVELOP AS A CONNECTED COMMUNITY

- » Connect downtown to the north side on NC 24 and to the west
- » Connect major destinations including parks, commercial centers, schools with safe sidewalks and off-road paths

6 BUILD COMMUNITY RESILIENCE IN A CHANGING ENVIRONMENT

- » Direct growth and public infrastructure investment to locations that are least likely to be affected by inundation, and where necessary manage the abandonment of imperiled infrastructure
- » Accurately communicate risk and regulate high risk areas through enhanced development regulations
- » Pursue projects that will increase resiliency to storms, flooding, and sea level rise



FUTURE LAND USE DESIGNATIONS

The Future Land Use Map (FLUM) and associated future land use (FLU) designations will be used to guide rezoning, investment, and land use decisions in the town. Just as the goals and objectives have generated recommendations, the FLU designations are associated with specific character descriptions and criteria. These FLUs and the FLUM are a guideline and reference point for the community, and will inform, but not necessarily definitively predetermine, the outcome of land use decisions and policies by the town.

The mixing of non-residential and residential uses is viewed positively in Swansboro, because of mixed development in the downtown historic district that demonstrates different uses can coexist peacefully. As such, the mixed use FLU designations generally function as overlays that show where additional uses or density can be added to or mixed with the underlying residential uses. Where mixed use FLUs overlap other FLUs, the criteria associated with each must be considered.

Residential FLUs are the underlying character within which the mixed use and non-residential overlap at more intense nodes of activity. Appropriate density is determined in part by a property's position within or proximity to the activity nodes. This allows a stepping down of density and intensity with distance from mixed use activity centers. It also allows the positioning of people next to the goods and services that they need for daily life, and this increased connectivity was a common thread in the community conversation.

FUTURE LAND USE DESIGNATIONS

TRADITIONAL TOWN CENTER (TTC)

This designation is characterized by a mix of residential, commercial, and civic uses in the historic downtown central business district or TTC node. Redevelopment or new development should be compatible with and embody the desired heart of “Swansboro” character.

SUBURBAN TOWN CENTER (STC)

The highway commercial designation contains medium to high intensity uses on the NC 24 corridor. A mix of uses including multi-family with managed access is encouraged.

EMPLOYMENT / LIGHT INDUSTRIAL (ELI)

This designation includes office, light industrial or assembly, and flex-tenant spaces. Site layout should allow for truck circulation, buffers between dissimilar uses, and quality architecture adjacent to the highway.

GATEWAY CORRIDOR (GC)

State-owned NC 24 and the adjacent development make the first impression of the town. Signage, lighting, sidewalks, landscaping, architectural design along the roadway should reflect the unique features and values of Swansboro.

CONSERVATION PRIORITY AREA (CPA)

The CPA designation includes lands influenced by the natural environment containing features including but not limited to wetlands, woodland, shoreline, pocosins, open space, vistas that are worth conserving and that define Swansboro.

COASTAL TRADITIONAL NEIGHBORHOOD (CTN)

This is a walkable, compact, residential district laid out based on traditional neighborhood development patterns. It generally surrounds the TTC and contains single and two-family residential with small-scale multi-family and neighborhood commercial.

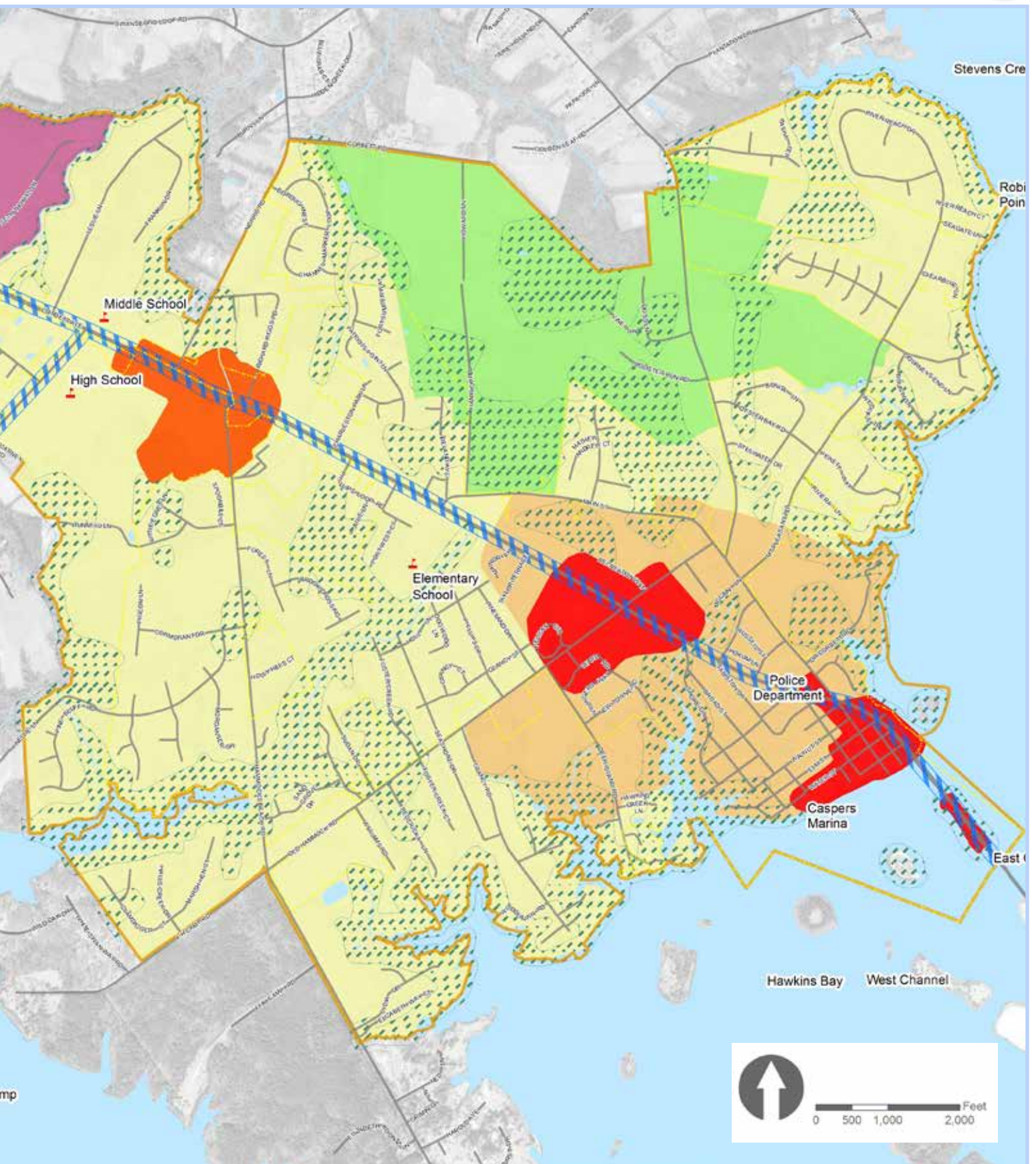
LOW DENSITY / SUBURBAN NEIGHBORHOOD (LDSN)

This designation characterizes the majority of new subdivision development. It is auto-oriented and should be connected to water and sewer infrastructure, and contain sidewalks and streets that connect to parks, educational, or religious uses.

RURAL / AGRICULTURAL (RA)

Agricultural land generally occurs outside the town limits but is within the town’s ETJ. Though there are working farms, rural residential and agritourism activities may occur here. Water and sewer infrastructure are typically not available.





CONSERVATION PRIORITY AREA (CPA)

Conservation Priority Areas (CPA) represent opportunities to allow lower density development clustered away from and respectful of environmentally sensitive areas, important natural views, and priority conservation preservation areas as identified by the community. Agricultural preservation was also identified as a community priority, but where Rural Agricultural (RA) areas overlap the CPA, the development character and density restrictions of the RA area shall prevail, and not be further restricted by the CPA.

CHARACTER

Generally speaking, flood-prone areas (including 100-yr and 500-yr floodplains), all wetlands (coastal and upland), streams (perennial or “blue line” and intermittent), riparian areas and mature forests are priority preservation areas. This is especially true of areas that have an impact on water quality and accommodation of storm surge.

Development within this overlay should respect the natural environment that creates the quality of life that defines Swansboro. Clustering development away from sensitive environmental features or assets (views, habitat, etc.) is required. Deviations from typical lot standards may be necessary to accommodate clustering.



Coastal wetland



Agricultural field

ACCESS AND CIRCULATION

Streets will respect the underlying FLU designation, but may be designed with additional criteria that respect and enhance the natural environment. In particular, additional or enhanced flood mitigation, low impact design, or stormwater treatment measures may be necessary.

SETBACKS

Setbacks should provide enhanced protection of environmental assets and provide additional buffering for structures or infrastructure that will be placed near CPAs. As such, setbacks will likely be determined by the underlying FLU(s) or zoning, but with additional setbacks from environmental features (stream, wetland, floodplain, open water body) that are within the CPA.

MASSING AND BUILDING HEIGHTS

Modifications to the massing standards of the underlying FLU may be necessary to protect environmental resources and additional attention may be necessary to accommodate views of CPAs, which in some cases are considered a community asset.

BLOCKS

- » Blocks are allowed as appropriate for the underlying FLU category, but larger blocks should be allowed if necessary to avoid environmentally sensitive areas.
- » Stub-out connections should be located logically to facilitate future connections to adjacent areas, if environmentally feasible.

PARKING

Parking areas should be designed to minimize stormwater generation or other negative externalities (i.e. - light pollution, runoff, etc.) that might impact CPAs.

APPROPRIATE DENSITY / INTENSITY

Low intensity development is allowed within this FLU designation at 50% of the gross density otherwise specified by the underlying FLU category. This means that less development will occur in or near the CPAs. All development that does occur must be clustered in the least



Example of Conservation Priority Area (CPA) with coastal wetlands.

environmentally sensitive part of the property and net density in that clustered, developed area may exceed the gross density for the total property, particularly if it is uplands.

REPRESENTATIVE AREAS

Currently, there are no representative areas in town that effectively demonstrate environmentally respectful cluster development.

OTHER CONCERNS

It is important to note maps within this plan depicting the CPA are for reference only, as these areas will naturally shift and realign, requiring field verification to determine exact location.

Lowering the intensity and density of development within this area in the town's jurisdiction may result in the demand for that development being displaced elsewhere, including to the area just outside the ETJ. If Onslow County has less restrictive regulations on development, it is likely this will result in additional higher intensity growth just outside of town, which could quickly consume farmland and land in environmentally-sensitive areas. This effect will likely be accelerated by availability of water and sewer services by the ONWASA. Consequently, the Town should coordinate with the County to implement a mutually-beneficial solution to this potential problem.



Example of Conservation or Cluster subdivision. (Source: Chatham County Comprehensive Plan)



RECOMMENDATIONS & STRATEGIES

Community plans are meant to be living documents. Priorities and directions are set in the plan, but implementation of the plan's recommendations and strategies will be carried out by Town leadership and staff. Swansboro embarked on the Land Use Plan update at the same time as other planning efforts, offering the opportunity for plans to be significantly aligned to each other, and enhancing the likelihood of successful implementation. The following recommendations and strategies are intended to provide additional guidance for implementing the goals and objectives of this plan.

PUBLIC ACCESS

PROVIDE, ENHANCE, AND ENFORCE PUBLIC WATER ACCESS.

Waterfront access points should be clearly designated and designed as public spaces, without encroachment from neighboring property owners attempting to exert private influence over the area. Enhanced facilities (kayak and canoe launches, public benches or tables, trash cans, docks, etc.) also increase the appeal and use of these areas. When providing public access to waterfront areas, natural shoreline and habitat should be preserved as much as possible to protect water quality.

PROTECT VIEWS OF THE WATER AND OF NATURAL AREAS AND WETLANDS.

Preserve signature views and create new visual and/or physical connections to the water when accommodating new growth. Partner with land owners in existing development to increase connections to the shoreline.

INCREASE ADA ACCESSIBILITY AND IMPLEMENT ADA TRANSITION PLAN.

The Americans with Disability Act (ADA) accessibility retrofits can be difficult to implement in older sections of town where space is limited. However, providing access, particularly to businesses and areas the general public is invited to visit, is important and should be the norm when evaluating upfits or redevelopment plans. The creation, adoption, and implementation of an ADA Transition Plan should also be a top priority.

LAND USE COMPATIBILITY

INCORPORATE DEVELOPMENT STANDARDS THAT IMPLEMENT THE CHARACTER DESCRIPTIONS PROPOSED IN THE FUTURE LAND USE CATEGORY DESCRIPTIONS.

The development character of certain parts of town are prized and must be measured and codified in the zoning code in order to see those changes occur in new development. A revision of the development standards and zoning regulations should be undertaken to see the character of the future land use designations carried forward into new development. For instance, parking minimums and maximums should be reviewed and revised to better implement the recommendations and goals of this plan.

REVIEW DEVELOPMENT STANDARDS OF THE DOWNTOWN AND THE HISTORIC NEIGHBORHOODS SURROUNDING DOWNTOWN, AND EXTEND THOSE STANDARDS TO AREAS IN THE TRADITIONAL TOWN CENTER (TTC) AND COASTAL TRADITIONAL NEIGHBORHOOD (CTN).

The people of Swansboro treasure the feel and character of the historic downtown and surrounding residential areas. This character should be quantified and codified so that future development and redevelopment can achieve a similar feel (setbacks, lot widths, parking location, materials, etc.), while also incorporating enhanced standards and performance (stormwater, pedestrian facilities, ADA access, etc.)

CONTINUE TO IMPLEMENT ADOPTED TOWN PLANS.

For plans to remain relevant and actionable, they must be acted upon, reviewed, and revised regularly, which may be as simple as a regular status update from staff on accomplishments and status of projects within each plan. Aging plans should be reviewed and revised to remain relevant, and a progress update schedule developed for each relevant plan with associated responsible town department.

Continue implementation of the adopted town plans, including but not limited to:

- » Economic Development Strategy (2018)
- » Parks & Recreation Master Plan (2019)
- » Watershed Restoration Plan (2017)

CREATE ZONING STANDARDS AND STRATEGIES TO ADDRESS DEVELOPMENT IN AND NEAR RURAL AGRICULTURAL (RA).

Farming is a largely industrial activity that can create significant nuisances for adjacent residential properties. However residential development will seek to locate on dry, flat areas, most of which have previously been or adjacent to farmland. Enhance zoning standards for rural development to buffer and compliment farmland in the RA.

CREATE ZONING STANDARDS TO ENHANCE THE FUNCTION AND APPEARANCE OF THE GATEWAY CORRIDOR (GC), PARTICULARLY THE NC 24 CORRIDOR.

The public open house workshop identified several areas where public support exists for strengthening

regulations along the NC 24 corridor. Implement the recommendations of the Gateway Corridor Plan, including but not limited to enhancement of the Gateway Corridor character area through development guidelines and ordinance standards that:

- » Preserve or create deep and enhanced, landscaping buffers between roadway and development site.
- » Encourage residential building setbacks and massing that blend in with the natural environment.
- » Significantly restrict individual access drives and require cross-access between adjacent parcels and sites unless absolutely unachievable.
- » Discourage frontage streets, or if allowed modify setbacks accordingly.
- » Create pedestrian-supportive infrastructure (sidewalks, crosswalks, signals, etc.) along the gateways.
- » Create parking location requirements, with strong preference for parking in the rear of buildings, and enhanced screening requirements that provide consistency and contribute to the appearance of the corridor.

INFRASTRUCTURE CARRYING CAPACITY

DIRECT DEVELOPMENT TO PLACES THAT CAN SUPPORT IT WHILE ALSO REINFORCING THE COMMUNITY CHARACTER AND SOCIAL FABRIC.

The best way to connect people to destinations is to place them in proximity to each other. Locate higher density residential development within walking distance of goods and services to strengthen businesses, reduce vehicular traffic, and encourage active transportation. Consider existing built form and community characteristics when reviewing new development.

Allow dense, context-sensitive development in areas that have adequate public service, proximity to goods and services, and resiliency to foreseeable environmental threats. Mixed use development, both horizontal and vertical, should be encouraged where appropriate.

Consider incentives for infill growth such as by-right approval processes, while also requiring development to connect to utilities and pay for needed system upgrades.

PRIORITIZE UTILITY SYSTEM UPGRADES.

Continue to work with ONWASA to prioritize water and sewer expansion and distribution to targeted areas in accordance with the Future Land Use Plan. Prioritize utility system upgrades for mixed use areas. Incorporate concepts and design that respect the current and future vulnerability of these facilities to a changing climate, storms, and sea level rise.

EVALUATE THE COST OF PROVIDING SERVICES TO NEW DEVELOPMENT AND USE THAT INFORMATION WHEN EVALUATING PROPOSED DEVELOPMENTS OR EXTENDING UTILITY SERVICES.

By using a measurable metric, such as cost per linear foot of street frontage, a community can quantify existing public services costs, and estimate the impact that future development will have if the town is required to take over infrastructure and provide services. A benchmark figure will assist decision makers in evaluating the long-term impact of service extension and growth. Ultimately, the cost of services and infrastructure provided by the town must be recouped, and a balanced approach can be best informed with knowledge of those costs.

IDENTIFY FUNDING SOURCES AND PARTNERSHIP OPPORTUNITIES.

Investigate potential funding sources for the water system and utilize inter-local agreements with either the County or ONWASA for annexation and utility service provision, as appropriate.

NATURAL HAZARD AREAS

CONTINUE TO PROVIDE INFORMATION TO RESIDENTS AND THE DEVELOPMENT COMMUNITY ON THE RISKS AND BEST AVAILABLE DATA RELATING TO ENVIRONMENTAL RESOURCES AND CONDITIONS.

Continue education efforts related to flooding, storm surge, sea level rise, stormwater, and governmental programs and processes related to each. This may include becoming involved in the Community Rating System (CRS) and potentially other programs related to flood protection and flood insurance.

PRIORITIZE CAPITAL IMPROVEMENT PROJECTS IN AREAS THAT WILL INCREASE OVERALL RESILIENCY TO STORMS AND FLOODING.

- » Identify priority areas and actions to make the town more resilient to storms and flood events using VCAPS process and knowledge of recent storms.
- » Evaluate public and private infrastructure for risk, especially critical infrastructure (operations center, police/fire/EMS stations, water and wastewater treatment plants, hospitals, assisted living facilities, etc.), and use this evaluation to guide future locations and expansions.
- » Consider locating highly critical infrastructure well outside of the 500-year floodplain, while less critical infrastructure may be in more flood prone areas with disruptions anticipated but minimal. The nature of each infrastructure component will determine how risk-adverse the public is to a lapse in service.
- » Map and identify stormwater infrastructure that needs upsizing or replacement, and incorporate into capital improvement planning.

USE CURRENT, BEST AVAILABLE SEA LEVEL RISE PROJECTIONS AND ENVIRONMENTAL VULNERABILITY KNOWLEDGE WHEN MAKING PUBLIC INFRASTRUCTURE INVESTMENT DECISIONS.

Public investments communicate to the public that an area is “safe”. They are also frequently lasting decisions that obligate funds for construction, operation, or maintenance for many years. A town that appropriately sites new infrastructure will be more likely to be prosperous and safe.

- » Consider retracting services or strategically abandoning infrastructure in areas that are likely to be risky or dangerous.
- » Major public facilities (hospitals and resident-occupied health facilities, operations centers, water/wastewater facilities, etc.) should be located in areas that will not flood during intense storm events (500-year or 1,000-year), and access to these facilities should also be hardened against storm impacts.
- » New roads should only be allowed if built to withstand a significant storm event without flooding, and even then should be located entirely outside of floodplains.
- » Utilize the information from the VCAPS process regarding projected future floodplains (see Appendix).

STRENGTHEN DEVELOPMENT STANDARDS TO ENHANCE RESILIENCY TO STORMS, FLOODING, AND AN UNCERTAIN CLIMATE FUTURE.

- » Require new construction be built to withstand lower probability / higher impact storms (500-year, 1,000-year, etc.) to reduce damage liability, economic losses, and speed recovery when these events occur. This will be especially important as future floodplain limits will expand as noted on new FIRMS which

are based on SLOSH storm surge modeling. Incentives to reduce insurance costs could also make this strategy more achievable.

- » Perform analyses to identify areas that will likely become the new 100-year floodplain as sea levels continue to rise and consider restricting development or enhancing development regulations in these areas. Look for future guidance from FEMA on this particular subject.
- » Encourage or incentivize low impact development techniques by updating stormwater ordinances and improving outreach efforts. Updates should include but not be limited to:
 - » Encourage reduction of impervious surface cover and increased use of permeable surfaces
 - » Allow naturalized detention areas, rain gardens, and bioswales to satisfy open space requirements
 - » Consider zoning overlays in areas of specific stormwater management concern that require certain types of stormwater or flooding management techniques
 - » Treatment and storage of stormwater on-site, where appropriate
 - » Implementation of Low Impact Development (LID) or green infrastructure stormwater and water quality measures, where appropriate; this may involve multi-property solutions
 - » Implementation of projects that enhance or restore shoreline or wetlands, or otherwise improve water quality and the natural environment
- » Consider requiring a higher freeboard requirement (2- or 3-foot) for new development and/or in places that are particularly susceptible to flooding or storm surge with or without wave action.
- » Develop unique solutions to mitigate future flooding in the historic waterfront district in order to preserve the town's heritage and history.

REVIEW AND REVISE THE WATERSHED RESTORATION PLAN TO ENSURE THAT IT ANTICIPATES AND ADDRESSES EXISTING AND FUTURE ISSUES.

- » Identify opportunities for retention and green stormwater infrastructure that can serve infill and redevelopment
- » Consider regional stormwater detention solutions for future employment sites or other large development sites; consider partnership with developers (or regional solutions)

SCRUTINIZE DEVELOPMENT IN ENVIRONMENTALLY-SENSITIVE AND FLOOD-SUSCEPTIBLE AREAS CONSERVATION PRIORITY AREAS (CPAs).

Consider requiring the mapping and quantification of the CPAs when reviewing new development applications in these areas. Note that these areas are comprehensively mapped herein, and local criteria should be created to assist developers in making on-the-ground inventories, similar to the mapping of stream buffer corridors. This information should then be used during preliminary and final development application decisions. It may also be beneficial to encourage or even incentivize the clustering of development outside of the CPAs.

WATER QUALITY

CREATE ZONING STANDARDS AND STRATEGIES TO ADDRESS DEVELOPMENT IN CONSERVATION PRIORITY AREAS (CPAs).

Restrict the development of natural areas, especially in floodplains, to preserve water quality. Clustering

and other density transfer strategies will help protect priority environmental areas, as well as keep new development further from harm's way, as in the case of king tides, and storm-related flooding.

CONTINUE TO IMPLEMENT THE TOWN'S WATERSHED RESTORATION PLAN.

The town has recently obtained funding to install retrofit stormwater solutions to improve water quality. Any historic downtown has challenges when dealing with stormwater, since regulations did not exist when the town developed. Continuing to implement stormwater solutions is important to water quality, especially since much of the development of the town predates current stormwater control regulations. The Town may also choose to increase regulation of stormwater or raise stormwater fees to pay for other mitigative measures.

COMBINE WATERFRONT ACCESS WITH HABITAT RESTORATION AND STORM RESILIENCY.

- » Enhance water quality and storm resiliency while also providing increased access to public trust waters.
- » Pursue funding from multiple sources to achieve complimentary outcomes.
- » Consider additional setbacks from salt marshes, per the recommendations from the VCAPS process.
- » Consider implementing the Living Shorelines recommendations from the VCAPS process.

INVEST IN WATER QUALITY PROJECTS THAT ENHANCE BOTH QUALITY OF LIFE AND NATURAL ENVIRONMENT.

One of Swansboro's primary assets is the waterfront and coastal character of the town. Water quality and the natural environment is a major reason that people continue to settle in the town. Protection of water quality is crucial to the town's long-term vitality. Zoning and development standards are the primary avenue to locally influence water quality, and protective standards should be incorporated into the ordinance, including but not limited to:

- » Reduction of site impervious surfaces
- » Treatment and storage of stormwater on-site, where appropriate
- » Implementation of Low Impact Development (LID) or green infrastructure stormwater and water quality measures
- » Implementation of projects that enhance or restore shoreline or wetlands, or otherwise improve water quality and the natural environment
- » Disconnected and/or enhanced Stormwater Control Measures (SCMs), possibly requiring measures in excess of state standards

OTHER COMMUNITY PRIORITIES

PRIORITIZE NEW PEDESTRIAN INFRASTRUCTURE.

Identify potential pedestrian connections (sidewalks and multi-use trails) between high residential density areas and popular destinations and include those projects in the Capital Improvement Plan.

Destinations identified at the public open house workshop include:

- » Areas north and south of NC 24
- » The historic downtown
- » Parks and recreation facilities
- » Waterfront access areas

- » Hammocks Beach State Park
- » The intersections of NC 24 with Hammocks Beach Road and Old Hammock Road
- » Queens Creek Road
- » Main Street Extension

FACILITATE CROSS-DEPARTMENTAL, INTER-AGENCY, AND INTER-JURISDICTIONAL COORDINATION.

Encourage collaboration to provide county services that support recommendations in this plan. Work with outside agencies (local, regional, state, federal) to implement land use decisions that reinforce and support the values of the town. Of particular importance are communication and coordination with the County and ONWASA on land use and service provision decisions and standards that occur just outside the town's ETJ, as these will have the greatest impact on the town.

CONNECT NEW AND EXISTING DEVELOPMENT TO THE BROADER COMMUNITY.

Institute requirements that connect development to nearby amenities, open spaces, residential and commercial areas, and road networks by implementing the following strategies:

- » Limit maximum cul-de-sac length, and then only allow if a future connection is not achievable. Developing secondary connections between destinations is crucial to creating community and reducing congestion on major roadways.
- » Establish maximum block lengths, and require achievable stub-outs. Where stub-outs would require a culvert or bridge, require the developer to pay fee-in-lieu for their portion of the future facility. Consider also adopting Appendix D of the NC Fire Code, which discusses access points, cul-de-sac length, and maximum number of units for safe provision of EMS/fire safety services.
- » Update pedestrian and bicycle plans to address acquisitions and requirements for easements for these facilities. Require new construction to connect to existing or planned facilities.
- » Strengthen connectivity policies to require interconnectivity and reduce traffic on main roads.

ENHANCE APPEARANCE AND MAINTAIN SMALL-TOWN, COASTAL CHARACTER.

The appearance and quality of appearance of structures, especially those with larger footprints (~40,000 sqft), should be balanced or mitigated by higher-quality materials and stormwater control measures, including but not limited to:

- » Use of high quality materials and prohibition or reduction in the use of low quality materials.
- » Breaking up the roofline or overall massing through architectural embellishments and fenestrations.
- » Balancing greater impervious surface areas with:
 - » Carefully considered setbacks that reduce visual impact - for instance, stepped setbacks.
 - » Additional stormwater control measures, particularly Low Impact Development (LID) design.
 - » Additional or enhanced landscape buffering, lighting, or pedestrian infrastructure and spaces.

IMPLEMENT THE ACTIONS IDENTIFIED IN THE VCAPS STUDY (SEE APPENDIX).

The community-identified actions and solutions identified in the VCAPS study are incorporated in this report as an appendix and include priority actions. Planning and implementation of this sort is a major step toward creating a more climate resilient future for Swansboro.



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PUBLIC ENGAGEMENT AND INVOLVEMENT

STEERING COMMITTEE

The Town appointed a steering committee composed of community members representing a variety of invested perspectives. This committee met monthly. Throughout the process, the steering committee reviewed, discussed, guided, and vetted the findings, public input, and proposed direction as presented by the consultant and staff. Through the information they gained from all of these exercises, the steering committee helped build a plan that represented the views and perspectives of the wider community, with an eye toward the detailed inner workings, opportunities, and constraints of each component of the plan. Members of the steering committee are listed in the Acknowledgments section of this plan.

EXISTING PROTECTIONS OF ISOLATED WETLANDS REPORT

Existing Protections of Isolated Wetlands

Key Points:

- Swansboro supports the policies and permitting processes under CAMA and Section 404 of the Clean Water Act.
- Due to changes in interpretation/legislation in the past few years, gaps have been created in the protection of coastal NC's small, isolated wetlands by federal and state programs.
- Swansboro does not have policies or ordinances specifically targeting and protecting isolated, non-coastal wetlands not protected under federal or state law.

Findings:

In the existing Land Use Plan (LUP), Swansboro complies with all state and federal laws regarding wetlands and environmentally sensitive areas, including section 404 of the Clean Water Act and all CAMA regulations. However, in 2008, a statement by the EPA asserted that wetlands not adjacent to traditional navigable waters are not under 404 jurisdiction. In 2015, changes were made to 15A NCAC 2H .1300 to regulate only 2 types of the 16 formerly identified isolated wetlands in NC, and to allow discharges that impact one acre or less of isolated wetlands in the coastal region without a permit (15A NCAC 02H .1305(3)). Combined, these changes create a gap in protection for small, non-adjacent/isolated wetlands and make it increasingly important that local municipalities adopt more stringent protections.

Currently, the town does not have many policies that go beyond protections under section 404 of the CWA. Most policies in regards to wetlands are statements of support for federal/state regulations. For example, policy 37 states that the town “supports coordinated efforts to preserve and protect the ecological and flood hazard benefits of freshwater wetlands, *as protected under Section 404 of the Clean Water act.*” Swansboro also has a CAMA-required Environmental Composite Map that incorporates areas of environmental concern into their land suitability analysis. In addition to this, there are a few policies could have indirect benefits to isolated wetlands. Policy 93 mentions a commitment to Low Impact Development (LID), which the UDO is required in Flexible Lot Developments. In implementing action 21 and policy 65, the town supports the education of the public about “environmentally sensitive areas” and the dangers of location development in natural hazard areas, which could be used to support an education campaign about isolated wetlands.

Recommendations

- **Educate residents** about the benefits (ecological, economic, public health/safety) of protecting wetlands. Incorporate wetland education efforts into Implementing Action 21 of the LUP.
- **Define wetlands** in the LUP and Unified Development Ordinance to include not only 404-regulated wetlands, but also isolated, freshwater wetlands.
- **Update policies** 25 (define environmentally sensitive areas to include isolated wetlands), 37, and 89 in the Land Use Ordinance to include wetlands not protected under CWA(404), according to the previously mentioned definition.
 - Also include a discussion of town protections/definitions in the Wetlands Section of Existing/Emerging Conditions: Fragile Areas.
 - In policy 63, amend to include more specific requirements for development susceptible to wetlands loss (instead of “consideration” in project development).
- **Change zoning** to either include isolated wetlands as a new, separate zone (overlay map of isolated wetlands), or incorporate isolated wetlands into the existing conservation zone.
 - Could commission maps of Swansboro wetlands, or use existing maps (FWS, NCRS, NOAA)
 - Allow appeals process for landowners to challenge delineations they feel are inaccurate
 - If not included in conservation zone, which is included in policy 27 of the LUP (about using increased lot sizes, decreased impervious surfaces, and cluster development), could include in large lot residential zoning to encourage building on uplands and not disturbing wetlands on lot.
- **Create a wetlands protection ordinance** specific to the needs of Swansboro:
 - Include: definition of a wetland, fact finding, intent/goals, definition of regulated activities, standards for issuance of permits (general: e.g. no net loss of wetlands, and specific: e.g. mitigation ratios), and conditions which may be attached to permits
 - Model ordinance from the Association of State Wetland Managers
 - Wisconsin Model Ordinance
 - Study on Local Ordinance Effectiveness in NYS
- **Create a Wetland Review Board** to help review permit applications under ordinance
- **Institute subdivision regulations** requiring wetlands protection, encourage use of wetlands as open space/stormwater management
- **Institute incentives** to encourage wetlands protection, such as:
 - Reduce local real estate taxes for preserved wetlands
 - Density bonuses or development right schemes
 - Work with local land trusts to provide wetland owners who donate wetlands or conservation easements with tax benefits