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Historic Preservation and the Plan Integration for Resilience Scorecard

Case Study in New Bern, NC

Rachael Wolff
Department of City and Regional Planning
University of North Carolina at Chapel Hill
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Abstract

Climate change will lead to more frequent and powerful natural hazards that can threaten historic resources and the benefits they provide to communities. Integration of different planning efforts offers one strategy towards better understanding gaps between land use policies that support or hinder resilience of historic resources. While prior research has explored both disaster planning for historic preservation and the resilience of a community's network of plans, these two topics have not yet been combined. This study builds upon previous applications of the Plan Integration for Resilience Scorecard and applies it to historic properties at risk from flooding in New Bern, North Carolina. Using the 100-year floodplain and Hurricane Florence flood extent as the hazard zones and a sample of historic resources designated on the National Register as the planning districts, this research analyzes whether land use policies in New Bern's network of plans increase or decrease resilience of historic properties. Findings suggest that New Bern's historic resources are vulnerable to flood hazards since contradictory plans do not support their resilience. However, the deep, local ties of historic preservation planning provide an opportunity to enhance resilience and protect future resources.

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Introduction

Historic preservation is a powerful tool for communities to leverage change by maintaining historic integrity and developing new industries and attractions. Mayes (2018) argues that sustaining “old places” is fundamental for 14 reasons, including memory; individual identity; civic, state, national, and universal identity; learning; sustainability; and economics. Historic resources become the primary source material of our everyday lives, yet their layers depend on community levels of privilege, nostalgia, and nationalism (Sturm, 2020). Therefore, historic resources and their ongoing preservation are not stagnant. Pueblo architect Rina Swentzel described her culture and home village as “continual flow, continual change, continual transformation” (Brand, 1995, p. 3).

This transformation is especially ripe in urban environments, as historic preservation often leads to employment, higher property values, downtown revitalization, and heritage tourism (Mayes, 2018). Many argue that historic preservation also leads to “sustainable development” across environmental, economic, and cultural dimensions (Rypkema, 2006; Nocca, 2017).

Therefore, preservation of a historic resource is holistic, encompassing both the physical property type and the social ties associated with it. Historic resources are literally the physical and social infrastructure of everyday lived experiences, which makes them a useful concept to combine with resilience. According to the National Research Council (2012), *resilience* is “the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events” (p. 1). This is similar to how Godschalk (2003) described a resilient city: “a sustainable network of physical systems and human communities” (p. 137).

Resilient cities, and the historic resources within them, are necessary as climate change exacerbates the frequency and severity of natural hazards like floods. The Intergovernmental Panel on Climate Change projected that once-per-century sea-level events may occur at least once per year by 2050 (IPCC, 2019). Disaster costs are increasing, and in the past 40 years, PricewaterhouseCoopers found that worldwide disaster losses outpaced the growth rate of insured losses by more than two percentage points each year (Kunreuther & Useem, 2018). In 2017–2019, the U.S. Government Accountability Office (2019) estimated that Congress passed \$183 billion in supplemental appropriations for disaster assistance.

These numbers are equally staggering at the state level. Hurricanes Dorian (2019), Florence (2018), and Matthew (2016) imposed at least \$27 billion in costs to North Carolina (Stradling & Bennet, 2018). Yet, traditional costs do not include damages to historic resources. In Florence alone, 16,000 resources or 20 percent of North Carolina’s listings on the National Register of Historic Places (NRHP) were located in highly exposed areas that received both individual and public assistance funding. Models predict that flooding trends will continue, threatening archaeological and historic sites across the state (NCDEQ, 2020, pp. E-2–5E-6; Lattimore et al., 2019).

There have been some efforts to bridge the divide between hazards resilience and historic preservation. The National Park Service’s (NPS) *Guidelines on Flood Adaptation for Rehabilitating Historic Buildings* (Eggleston et al., 2019) recognized that when historic buildings experience flood risk, they are likely to need “greater adaptive treatments” (p. 1). North Carolina is an example of a state including its lead on historic preservation, the Department of Natural and Cultural Resources, in climate and resiliency planning (Nicholson et al., 2019). Similarly, community organizations like 1000 Friends of Florida sponsored a state disaster plan for historic resources (Florida Division of Historical Resources, 2006).

Integrating historic preservation planning and natural hazard mitigation “will help to ensure the future growth of safe and sustainable historic communities” (Federal Emergency Management Agency, 2005, p. vi). Historic preservation is uniquely situated to respond to this mitigation challenge due to its existing knowledge and reach into local communities. While post-disaster recovery is complex and requires support by state and local leadership (Boyd et al., 2014), historic preservation could be the underutilized link between community resilience to hazards and future climate change.

This Master’s Project seeks to address these concerns through application of the Plan Integration for Resilience Scorecard (also referred to as “the Scorecard” and “PIRS”), an evaluation tool for better understanding the interactions among networks of policy institutions, networks of land use and development plans produced by such institutions, and social and physical vulnerability to hazards and climate change. PIRS offers a framework for evaluating these relationships in the context of community resilience, which is frequently challenged by a “plethora of plans problem,” the absence of collaborative processes, and little spatial understanding about the heterogeneous effects of interconnected policies (Malecha et al., 2019).

The case study for this analysis is New Bern, an historic city of some 30,000 people located along the Neuse and Trent Rivers on North Carolina’s coast. This research will provide additional insight to the vulnerability of its historic districts and buildings at flood risk through two research questions:

1. What is the exposure of historic resources to flood hazards in New Bern?
2. How do land use policies in New Bern’s network of plans support resilience of its National Register historic resources at flood risk?

Literature Review

The Secretary of the Interior’s Standards for the Treatment of Historic Properties defines *preservation* as a process that “focuses on the maintenance and repair of existing historic materials and retention of a property’s form as it has evolved over time” (National Park Service, n.d.; Grimmer, 2017). Historic preservation’s roots lie in the 1960s and 1970s, as a “quiet, populist, conservative” movement that sought to “Americanize” immigrants through glorifying national landmarks and to rectify the widespread neighborhood changes brought about by the American Housing Acts of 1949 and 1954 (Birch & Roby, 1984, p. 195; Brand, 1995, p. 88). Historic preservation clamored for “urban regeneration” (Brand, 1995, p. 89), and federal tools supported this effort, including the historic preservation tax credit (established in 1976), National Trust for Historic Preservation’s Main Street Program (established in 1977), and inclusion of historic districts on the NRHP (i.e., Miami-South Beach, FL in 1979) (Appler & Rumbach, 2016; Redaelli, 2020).

Historic preservation was inherently tied to broader trends and practices in urban planning and economic development. Legal cases such as *Penn Central Transportation v. New York City* (438 U.S. 1978) set the standard for determining constitutional takings and upheld the strength of local historic preservation ordinances (Duerksen & Roddewig, 2011). The development of historic districts such as Williamsburg, VA (1924) and the Old City District in Charleston, SC (1931) required cooperation in “surveying, zoning, and financing” (Birch & Roby, 1984, p. 196). While Urban Renewal was largely the planning profession’s rejection of principles such as “conservation” and “preservation,” backlash over the movement led to the proliferation of ideas related to neighborhood preservation and rehabilitation (Birch & Roby, 1984, p. 197-200).

Protection of historic resources from natural hazards specifically, however, is an understudied area. In the 1980s, scholars classified this task under the discipline of Conservation Studies, lamenting that planners did not prioritize preventing the loss of historic resources through relatively simple mitigation strategies like elevations or floodplain management (Jones, 1986). Godschalk (2003) recommended combining hazard mitigation in resilient cities with other functions, such as historic preservation, to “build distributed hazard mitigation capability” (p. 140).

Today, the tools to merge historic preservation, planning, and hazards resilience are more numerous but still disparate. Appler and Rumbach (2016) observed the gap in comparing state historic preservation plans and state hazard mitigation plans at a national level. Redaelli (2020) found value in using comprehensive plans to unite land use and historic preservation planning. Craig and Keys (2020) described community-led engagements in Annapolis, MD and St. Augustine, FL to prioritize historic resources at risk of sea-level rise and flooding through the Federal Emergency Management Agency’s (FEMA) Cultural Resource Hazard Mitigation Plan. Ghahramani et al. (2020) offered a social and cultural approach to community resilience and safeguarding heritage sites in the Gullah Geechee community.

A wider analysis is needed to evaluate exposure and vulnerability of historic resources to hazards like flooding. According to the IPCC (Lavell et al., 2012, p. 32), *exposure* is defined as “the presence (location) of people, livelihoods, environmental services and resources, infrastructure, or economic, social, or cultural assets in places that could be adversely affected by physical events and which, thereby, are subject to potential future harm, loss, or damage.” In contrast, *vulnerability* is defined as “the propensity or predisposition to be adversely affected” (Lavell et al., 2012, p. 32). Therefore, coastal and riverine flooding is a disaster risk that exposures vulnerable historic resources to harm.

Plan evaluation offers one solution for better understanding gaps in current resilience and preservation efforts and potential strategies for uniting them. This study applies the Plan Integration for Resilience Scorecard developed by Berke et al. (2015) to National Register historic resources at risk of flooding in New Bern, and evaluates how land use policies affect them. The study builds off the importance of plan quality literature and measures the resilience of a community’s network of plans (Baer, 1997; Berke & Godschalk, 2009; Woodruff, 2018).

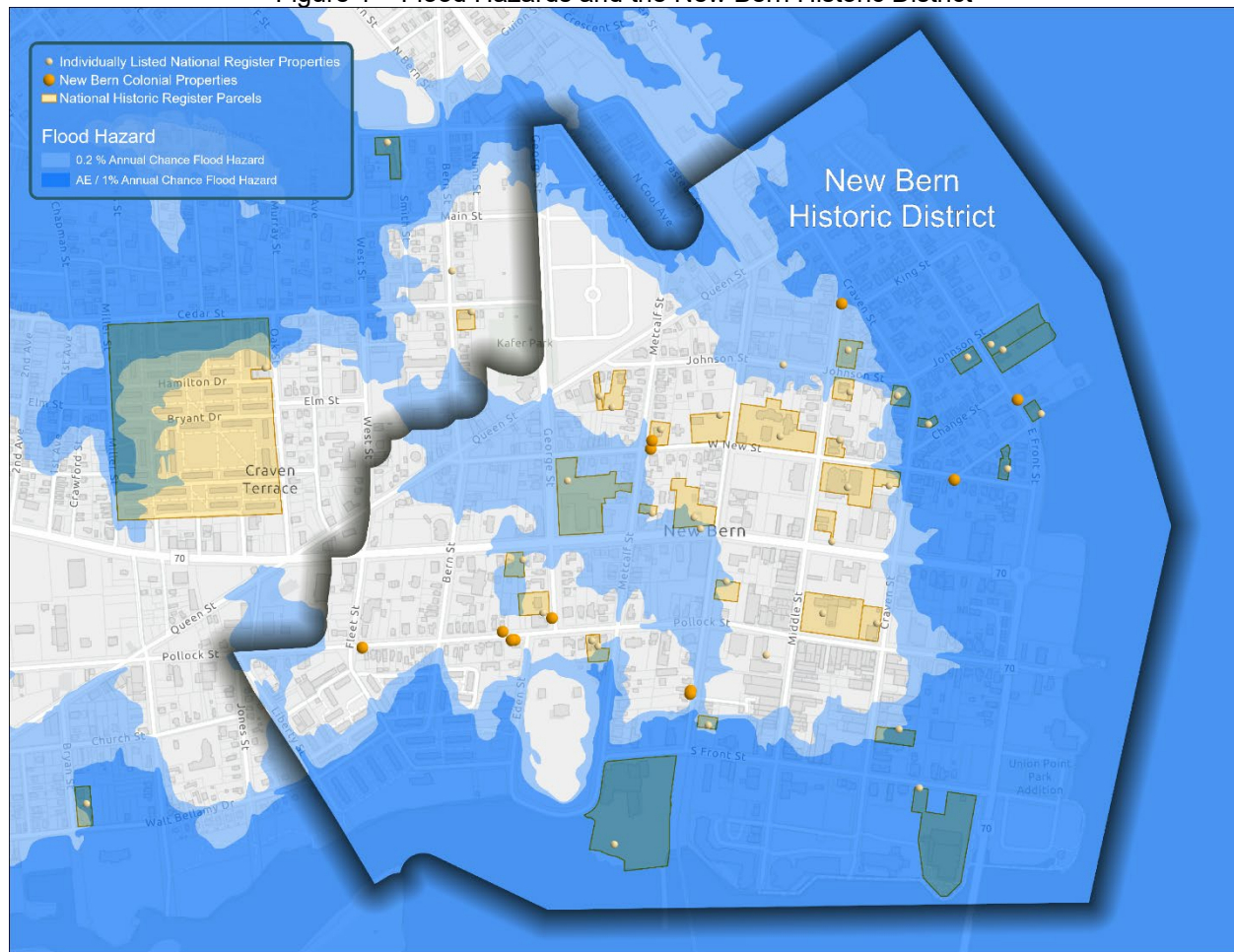
Case Study: New Bern, NC

New Bern is a city of 29,895 people located in Craven County in the Inner Banks region of North Carolina. The area is highly susceptible to flooding due to its location along the Trent and Neuse Rivers, which feed into the Pamlico Sound, as well as its poor water and wastewater infrastructure (FEMA, 2020). In September 2018, Hurricane Florence brought 10-foot storm surges to New Bern and destroyed more than \$200 million in residential and commercial property (Masters, 2018; Honeycutt, 2020). Tryon Palace, a state historic site from the 1950s that serves as a re-creation of the 1770-1775 state capitol, experienced water damage, broken windows, torn-off shutters, and vegetative debris (Price, 2018). Impacts from Hurricane Florence also illuminated social inequity in hazard vulnerability and impact in New Bern, especially in the historically Black neighborhoods of Duffyfield, Sunnyside, and Trent (Paschal, 2018; Murphy & Mooney, 2019; Ruffins, 2021).

Cumulatively, New Bern received at least \$42.4 million in federal disaster recovery funds and over \$195,000 in grants from the City, Wells Fargo, National Trust for Historic Preservation, and Duke Energy (FEMA, 2020; Wetherington, 2019). Since September 2018, the City has worked on flood mitigation and

resiliency planning with UNC Asheville’s National Environmental Modeling and Analysis Center, FernLeaf, The Craig Group, and Moffatt & Nichol (Wetherington, 2019). In early 2020, the City launched the effort to formally develop a citywide *Resiliency and Hazard Mitigation Plan*. The project focuses in part on historic preservation, advocating for an inventory of National Register historic districts downtown (Figure 1) and potentially unlisted properties of significant local and cultural importance in Duffyfield (City of New Bern, n.d.-b; Moffatt & Nichol, 2020).

Figure 1 – Flood Hazards and the New Bern Historic District



Source: City of New Bern (n.d.)

Historic properties and cultural resources abound in New Bern due to its colonial legacy. The area was originally inhabited by Chief Hancock and the Tuscarora Indian community, but the arrival of German Palatine and Swiss colonists resulted in local bloodshed (City of New Bern, n.d.-a; Parramore et al., 2006). Baron Christoph von Graffenried settled the city in 1710, and shortly after, John Lawson designed its grid layout under the principle that “in America they do not like to live crowded” (i.e., there are few row houses) (City of New Bern, 2020, p. 1-2). New Bern’s Downtown Historic District was a prototypical historical commercial core. It was the location for North Carolina’s state capitol from 1770–1792, and where the booming population constructed houses, schools, houses of worship, and other cultural symbols. The majority of downtown’s early- and mid-18th century buildings do not exist today due to attrition and natural disasters, but “Adamesque” Federal and some Greek Revival architecture reflect the styles popular before the Civil War. Late 19th century styles more closely mirrored national trends:

Second Empire, late Italianate Revival, Romanesque Revival, Queen Anne Revival, Stick Style, Eastlake, and Shingle. This shifted in the early 20th century once a strong lumber industry fueled the construction of Queen Anne and Neo-Classical Revival styles (City of New Bern, 2020).

Most lumber workers settled in the Riverside Historic District, subdivisions north of downtown established in 1894 and 1912 (City of New Bern, 2020; New Bern Home Guide, n.d.-c). While some sources consider Riverside the city's "first suburb," including the *City of New Bern Historic District Guidelines* (2020), it is predated by what would become two of New Bern's largest African American cultural hubs: Long Wharf and Dryborough (Foster, 2018). In Riverside, prevalent architecture styles include Classical Revival, Late Queen Anne, Craftsman, Colonial Revival, Italian Renaissance Revival, and Gothic Revival (City of New Bern, 2020).

Ghent Historic District developed as a trolley suburb between 1912 and 1941 approximately one mile southwest of downtown. While the area struggled to remain relevant after World War II as the population migrated to the suburbs, many of the homes today have been revitalized (New Bern Home Guide, n.d.-b). Common architecture styles are Colonial Revival and American Craftsman, as the neighborhood boasts several American Four-Square and bungalow style houses (Black, 1987).

Degraffenried Park Historic District (also stylized "DeGraffenried Park") is Christoph von Graffenried's namesake and grew in popularity between 1927 and 1956 in the area located north of Ghent along Broad Street. Its design includes two landscaped subdivisions, Green Park and Colonial Heights. Architectural styles spanned pre- to post-war trends, with the most prominent being Colonial Revival. Other styles included Jacobethan Revival, Craftsman, Tudor Revival, Cape Cod style, and Ranch style (New Bern Home Guide, n.d.-a; Little, 2005).

Today, these areas are designated as local and National Register historic districts. Within the National Register New Bern Historic District and its expansions alone, there are over 850 existing and now demolished resources. The Local Downtown Historic District has nearly 800 existing or now demolished resources (M. Schelly, personal communication, April 16, 2021). Many of these properties are sited in the 100-year floodplain or were damaged after Hurricane Florence. This is especially true for resources located in Greater Five Points, an historically Black development corridor that contains the Greater Duffyfield, Dryborough, Walt Bellamy, Craven Terrace, and Trent Court neighborhoods (Appendix A).

Methodology

This study examines the integration of historic preservation and hazards resilience strategies across various planning efforts in the city of New Bern. The network of plans in New Bern is evaluated using the Resilience Scorecard tool developed by Berke et al. (2015) and applied in Washington, NC. This approach has now been widely used across cities and countries (Malecha et al., 2018; Berke, Masterson, Malecha, et al., 2019; Berke, Malecha, Yu, et al., 2019; Berke et al., 2019b; Yu et al., 2020). In addition, Malecha et al. (2019) developed a *Plan Integration for Resilience Scorecard Guidebook* to assist local governments employing this method.

The PIRS methodology contains four steps: 1) Gather plans from within the community's network of plans; 2) Delineate planning and hazard districts; 3) Evaluate a community's network of plans for integration and consideration of vulnerability; and 4) Assess a community's physical and social vulnerability. The ultimate goal is to "evaluate the degree of coordination among a local network of plans in support of decreasing hazards vulnerability by district" (Berke et al., 2015, p. 290).

Assemble the Network of Plans

The first step in the PIRS process requires assembling the network of plans that influence land use and development within the study area (Malecha et al., 2019). Ideally, these plans will be individually diverse in their purpose, geography, and age, but all together relevant and robust in their attention to land use policy. In Zito's (2020) prior application of the Plan Integration for Resilience Scorecard in New Bern, she examined flood mitigation support of the city's network of plans for the entire city. Zito's (2020) assessment included five plans: 1) *Pamlico Sound Regional Hazard Mitigation Plan* (Draft); 2) *Hurricane Matthew Resilient Redevelopment Plan*; 3) *New Bern, River Bend, and Trent Woods Regional Land Use Plan* (Coastal Area Management Act [CAMA]); 4) *New Bern Area Metropolitan Planning Organization (MPO) Metropolitan Transportation Plan: Destination 2040*; and 5) *New Bern Gateway Renaissance Plan*. This current study is more limited in scope with its focus on historic resources¹, but includes five plans evaluated by Zito and two additional plans: *Greater Five Points Transformation Plan* and *New Bern Historic Preservation Plan*. In order to further analyze historic preservation in New Bern's plans network, the City of New Bern Flood Damage Prevention Ordinance, City of New Bern Land Use Ordinance, and *City of New Bern Historic District Guidelines* received preliminary qualitative analysis.

Table 1 – Selected Policy Tools: New Bern Plans and Ordinances

Geography	Plan (Sorted by Year Adopted)	Type of Policy Tool	Evaluation Method
City (Similar to County)	City of New Bern Flood Damage Prevention Ordinance (2020)	Ordinance	Preliminary qualitative
City	City of New Bern Land Use Ordinance (2020)	Ordinance	Preliminary qualitative
City	City of New Bern Historic District Guidelines (2020)	Guidelines	Preliminary qualitative
County	Pamlico Sound Regional Hazard Mitigation Plan (2020)	Hazard mitigation	PIRS
County	Hurricane Matthew Resilient Redevelopment Plan (2017)	Disaster recovery	PIRS
Neighborhood	Greater Five Points Transformation Plan (2016)	Small area	PIRS
Regional	New Bern Area MPO Metropolitan Transportation Plan: Destination 2040 (2016)	Transportation	PIRS
Neighborhood	New Bern Gateway Renaissance Plan (2013)	Small area	PIRS
City	New Bern Historic Preservation Plan (2011)	Historic preservation	PIRS
Regional	New Bern, River Bend, and Trent Woods Regional Land Use Plan (2010)	CAMA*	PIRS

* CAMA acronym: Coastal Area Management Act

¹ Though not an exhaustive list, plans not analyzed in this study include [New Bern Area MPO Metropolitan Transportation Plan: Envision 2045](#) (2021), [New Bern Redevelopment Plan](#) (2020), [CDBG Citizen Participation Plan](#) (2020), [Cherry Point Regional Joint Land Use Study](#) (2016), [City of New Bern Parks & Recreation Comprehensive Plan for a Healthy Community](#) (2013), [City of New Bern Pedestrian Plan](#) (2009), [City of New Bern Comprehensive Bicycle Plan](#) (2006), and [New Bern Urban Design Plan](#) (2000).

Intersect Planning Districts with Hazard Zones

The second step in the PIRS process requires mapping planning districts and hazard zones in order to delineate spatially discrete district-hazard zones as the unit of analysis (Malecha et al., 2019). Dividing the study area into planning districts “reveal spatial differences in vulnerability” (Malecha et al., 2019, p. 34).

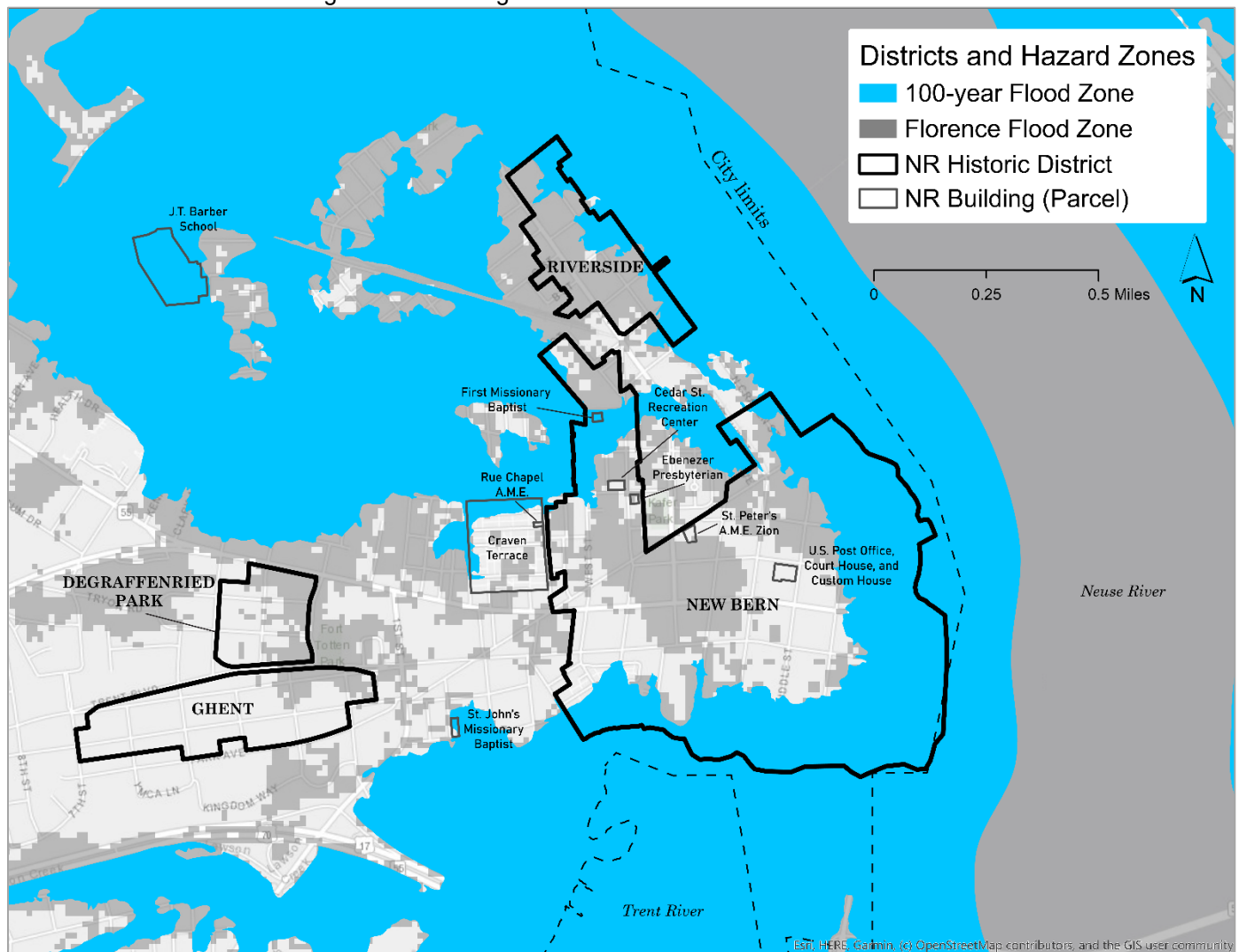
In previous PIRS studies, planning districts are often defined as individual census tracts. However, in this study, given the emphasis on historic resources, individual planning districts were defined as National Register historic districts and buildings (hereafter also referred to as “historic properties” or “historic resources”). The level of National Register (NR) designation was chosen due to eligibility for federal funding and vertical integration through NPS’ Certified Local Government (CLG) Program. In New Bern, 54 NR historic resources were identified that were not delisted or demolished.² To improve feasibility, this list was narrowed down to historic resources with discrete boundaries (i.e., parcels), yielding 18 historic resources for potential analysis. Three properties were excluded due to absence of attention by local plans (New Bern Battlefield Site, New Bern National Cemetery, and Cedar Grove Cemetery); and two properties were excluded due to their location outside of New Bern’s jurisdiction (Dr. Earl S. Sloan House and Mount Shiloh Missionary Baptist Church). In total, 13 historic resources were used as “planning districts” in the Scorecard.

Next, we defined hazard zones for the entire city to spatially map exposure to different flooding risks (Figure 2). The first hazard zone is the regulatory standard under FEMA’s National Flood Insurance Program (NFIP). The 100-year floodplain has a 1% chance of flooding in any given year. North Carolina must comply with the land use and development regulations stipulated by NFIP for the 100-year floodplain. This analysis used county-level data from the North Carolina Flood Risk Information System, effective June 19, 2020. The second hazard zone delineates the extent of inundation during Hurricane Florence in 2018, which extended beyond the 100-year floodplain.³ The district hazard zones are, thus, the overlay of the individual planning districts and these hazard zones.

² While separate line items, for the purposes of this study, the New Bern Historic District; New Bern Historic District Boundary Expansion (Area A); New Bern Historic District Boundary Expansion (Area B); New Bern Historic District Boundary Expansion (Area C); and New Bern Historic District, Boundary Increase II were scored as one resource.

³ While this analysis was conducted prior to Risk Rating 2.0, the 100-year and Florence flood zones may provide a holistic picture of recent past flooding vulnerabilities in New Bern.

Figure 2 – Planning Districts and Hazard Zones⁴



Evaluate Network of Plans

The third step in the PIRS process is to evaluate each plan by pulling out relevant policies and strategies and assessing their impact on vulnerability and resilience. Policies were selected based on “three-point test” criteria: 1) Policy influenced land use, development, or physical vulnerability; 2) Policy was spatially located; and 3) Policy used a recognizable policy tool to take action (also referred to as a “land use policy category”) (Appendix D). For this study, we added a fourth criteria. In addition to including all land use policies that applied within the study area, we also examined whether these land use policies and tools explicitly targeted historic preservation.

In terms of spatiality, policies were scored based on which district-hazard zones (i.e., which historic resource and hazard zones) that policy influences. Recognizing that most of the 100-year floodplain also flooded during Hurricane Florence, the two zones were treated as not mutually exclusive. Scoring for the Florence hazard zone overlaps with the 100-year floodplain hazard zone within all planning districts.

⁴ The Florence flood zone includes both the area that covers the 100-year flood zone and areas that extended beyond the 100-year flood zone.

Each policy can score -1 to +1: -1 if a policy increases vulnerability; 0 if policy does not affect vulnerability; and +1 if policy reduces vulnerability. An example of policy selection and evaluation for New Bern is illustrated below (Table 2). This study paid particular attention to policies focused on historic preservation but selected any policies that applied to the historic district-hazard zones. Spatial and summary table analyses to complete the “Evaluation” step are given in [Findings](#).

Table 2 – Sample of Land Use Policies Targeting Historic Preservation

Reference	Policy	Score	Historic Preservation Focus	Effect on Hazards Vulnerability
New Bern Gateway Renaissance Plan (2013, p. 90)	Façade Grant Program — Commercial property building improvements (painting, repair/replace windows and doors, awnings, structural repairs, signage, roofing, and landscaping)	-1	Income-producing historic properties part of Façade Grant Program as of 2020	This outcome encourages development by investing in properties.
New Bern Historic Preservation Plan (2011, Section 6, Page 3)	Develop a list of particularly significant and/or threatened historic sites for potential purchase or easement. — This recommendation is to develop a master list, prioritized by significance and threat level, that is not only used for enforcement but also for private, voluntary protective action by purchase or easement.	0	Threatened historic sites	This outcome could be used to mitigate in the hazard area, but it is uncertain if acquirement would result in actions that further (re)development.
Greater Five Points Transformation Plan (2016, p. 51)	Create family-oriented pocket-parks with gazebos, picnic tables and play areas, named after historic subdivisions; encourage “Adopt-a-Park” program to engage nearby residents with maintenance and programming	1	Historic subdivisions	This outcome promotes green space. In the plan's context, however, this positive policy is canceled out by redevelopment of vacant land.

Findings

Overall policy scores suggest that the City of New Bern’s network of plans are not integrated well enough to support resilience. Furthermore, land use policies that explicitly address historic preservation concerns do not feature widely across the plans. Historic preservation policies that do exist generally do not align with resilience goals, and may even leverage historic resources towards “investment in the preservation and rehabilitation of New Bern’s commercial area and housing stock” (Hanbury Preservation Consulting et al., 2011, p. 9, section 6), regardless of the areas’ physical vulnerability.

Policy Scores

This PIRS analysis evaluated New Bern’s network of plans across regional, city, and small area extents (Appendix E). Across the seven plans, we identified 74 policies that affect vulnerability of historic resources. Only 14 of the 74 policies (18.9%), however, explicitly mentioned historic preservation (Table 3).

Table 3 – Land Use Policy Categories

Policy Category	Number of Policies	Number of Policies with Historic Preservation
Development Regulations	25	4

Financial Incentives and Penalties	14	7
Land Acquisition	11	1
General Capital Improvements (e.g., pedestrian facilities, road construction)	9	1
Land Use Analysis and Permitting Process	7	1
Public Facilities	4	0
Post-Disaster Reconstruction Decisions	2	0
Ecosystem Enhancement	2	0
Total	74	14

The “development regulations” land use policy category had the highest number of policies (25), as New Bern prioritized neighborhood redevelopment, infill development, mixed-income developments, and historic district zoning to promote economic development. Most development regulation policies scored negatively—that is, they decreased resilience—since these policies are encouraging investment and development in flood-prone areas. However, some development plans included hazard mitigation measures to reduce at-risk development. For example:

-1: Demolish buildings in flood plain areas where flood mitigation measures are not feasible or too expensive (*Greater Five Points Development Plan*, 2016, p. 74).

“Ecosystem enhancement” policies that increase resilience, such as wetlands restoration, were only present in one plan that was written in compliance with the Coastal Area Management Act.

+1: Protect, maintain, and conserve coastal and 404/401 wetlands and open space as established by State standards (*New Bern, River Bend, and Trent Woods Regional Land Use Plan*, 2010, p. 87).

The 14 policies that explicitly addressed historic preservation mostly had uncertain or negative influence on vulnerability. Those that received 0 scores were policies whose effect was unclear. This may be due to vague policy language that did not specify whether “historic preservation” actions would include mitigation against flood hazards. Negative scores were applied to historic preservation policies that were encouraging investment and rehabilitation in historic sites without regard for flood risk or with no mitigation measures in place. For example:

-1: Creative Main Street: Pollock Street — Historically a mix of retail and single-family residential, Pollock is increasingly attracting a more eclectic mix of art-focused uses. Add new flexible housing options, studios, and creative work spaces for artists and entrepreneurs alike. Mix in galleries and cafes, and build on the existing mix of emerging ethnic restaurants. (*New Bern Gateway Renaissance Plan*, 2013, p. 4)

Spatially, the cumulative scores for policies from across New Bern’s network of plans were negative for historic districts (“Districts”), properties within historic districts (“Buildings in New Bern Historic District”), and properties not tied to historic districts (“Stand-alone Buildings”), in both the 100-year and Florence inundation hazard zones. (Table 4).

Table 4 – Policy Scores that Affect Vulnerability of Historic Resources*

Historic Resources Designated on the National Register	100-year Flood Zone	Florence Flood Zone
DISTRICTS		
New Bern Historic District	-8	-13
Riverside Historic District	-2	-2
Degraffenried Park Historic District	—	-1
Ghent Historic District	—	0
Districts Mean	-5.0	-4.0
BUILDINGS in NEW BERN HISTORIC DISTRICT		
First Missionary Baptist Church	-3	-3
Ebenezer Presbyterian Church	-1	-3
Cedar Street Recreation Center	-1	-2
St. Peter's A.M.E. Zion Church	—	-2
U.S. Post Office, Court House, and Custom House	—	—
Buildings in New Bern Historic District Mean	-1.7	-2.5
STAND-ALONE BUILDINGS		
St. John's Missionary Baptist Church	-4	-4
Craven Terrace	-2	-3
Rue Chapel A.M.E. Church	-1	-3
J.T. Barber School	1	1
Standalone Buildings Mean	-1.5	-2.3
Overall Mean	-2.7	-2.9

*The policy scores are derived from the 75 policies in New Bern's network of plans that affect vulnerability of historic resources.

The overall mean score across all policies was less negative in the 100-year floodplain (-2.7) than the Florence hazard zone (-3). This result suggests that more regulations are occurring in the 100-year floodplain. Hurricane Florence inundation also covered a larger geographical area than the 100-year flood zone.

In the "Districts" category, the overall mean score was -5.0 for the 100-year floodplain and -4.0 for the Hurricane Florence flood zone. The Degraffenried Park Historic District and Ghent District are not sited within the 100-year flood zone and received only slightly negative (-1) to neutral scores (0). Consequently, the New Bern Historic District pulls down the mean for this category. It has the lowest scores in the Districts category and overall.

In the "Buildings in New Bern Historic District" category, the results are mixed; the overall mean score was -1.7 for the 100-year floodplain and -2.5 for the Florence flood zone. The U.S. Post Office, Court House, and Custom House building was not scored since it is located outside of the 100-year and Florence flood zones. The First Missionary Baptist Church, located entirely within both flood zones, received the worst score in this category (-6). A unique and significant policy affecting First Missionary Baptist Church prioritized parking and expansion of "urban religious congregations" that "often result in physical changes to the urban fabric" (Hanbury Preservation Consulting et al., 2011, p. 11, section 6). This policy also contributed to St. Peter's A.M.E. Zion Church, which received the best score in this category (-2).

be at-risk. Buildings within the New Bern Historic District were generally ranked in the middle, excluding St. Peter's A.M.E. Zion Church. Other than the New Bern Historic District, St. John's Missionary Baptist Church is the closest historic resource to a river. As the New Bern Riverwalk policies affected St. John's, so too did they affect the New Bern Historic District and Degraffenried Park Historic District.

Individual Plan Evaluation

Analyzing the policy score results by individual plan reveal some interesting patterns (Table 5). The three plans with positive scores—the hazard mitigation, disaster recovery, and Coastal Area Management Act plans—are regional or county plans that had positive citywide mitigation measures. While their positive scores are good for resilience, some plans may not be as implementable if policy language is too vague, responsibilities are not clearly defined, or funding sources and timelines are uncertain. For example, even a specific policy such as installing a flood barrier at 411 Craven Street, the location of the County Emergency Operations Center, could fail due to lack of coordination or public support (Craven County, 2017, pp. 4–47).

Table 5 – Policy Scores by Plan

Geography	Plan (Sorted by Year Adopted)	Plan Type	100-year Flood Zone		Florence Flood Zone	
			Historic Resources	Citywide	Historic Resources	Citywide
County	Pamlico Sound Regional Hazard Mitigation Plan (2020)	Hazard mitigation	—	5	—	5
County	Hurricane Matthew Resilient Redevelopment Plan (2017)	Disaster recovery	1	4	2	4
Neighborhood	Greater Five Points Transformation Plan (2016)	Small area	-1	0	-4	0
Regional	New Bern Area MPO Metropolitan Transportation Plan: Destination 2040 (2016)	Transportation	-2	—	-4	—
Neighborhood	New Bern Gateway Renaissance Plan (2013)	Small area	-10	—	-14	—
City	New Bern Historic Preservation Plan (2011)	Historic preservation	-2	-4	-5	-4
Regional	New Bern, River Bend, and Trent Woods Regional Land Use Plan (2010)	CAMA*	-7	11	-11	11
Mean			-3.5	3.2	-6.0	3.2

* CAMA acronym: Coastal Area Management Act

The *New Bern, River Bend, and Trent Woods Regional Land Use Plan* demonstrates that a plan may score positively overall due to its city and county policies, but still contain negative scores within the district-hazard zones. For example, the plan both protected and developed the waterfront:

+1: The municipalities will avoid zoning areas susceptible to storm surge for higher density residential uses and intensive nonresidential uses (*New Bern, River Bend, and Trent Woods Regional Land Use Plan*, 2010, p. 86).

-1: The city will permit the development of new marinas, the expansion of existing marinas, and the development of noncommercial docking facilities to serve individual residential lots (*New Bern, River Bend, and Trent Woods Regional Land Use Plan*, 2010, p. 74).

Small area-plans generally encouraged development and performed poorest in terms of resilience. The New Bern Gateway Renaissance Plan used phrases such as “transformational redevelopment,” “strategic infill,” and “dramatically expand.” At the time, planners proposed a Tax Increment Financing (TIF) District covering the whole “Gateway District.” This “Gateway District” was rebranded as “Greater Five Points” in the Greater Five Points Transformation Plan. In addition to adding Craven Terrace to the list of redevelopment projects, most notable are the policies trying to balance development with mitigation:

-1: Locate mixed-use and mixed-income developments along major corridors in Greater Five Points (*Greater Five Points Transformation Plan*, 2016, p. 125).

+1: Demolish buildings in flood plain areas where flood mitigation measures are not feasible or too expensive (*Greater Five Points Transformation Plan*, 2016, p. 74).

0: Create a safe and welcoming greenway network of paths and parks connecting key resources throughout Greater Five Points by reusing vacant land in flood plains and other areas (*Greater Five Points Transformation Plan*, 2016, p. 78).

Justification: Greenways in floodplains is good, but some of these networks accelerate development, i.e., along New Bern River Walk.

Land use tools targeting historic preservation are largely siloed from resilience conversations (Table 6).

Table 6 – Policy Makeup by Plan

Plan (Sorted by Year Adopted)	Number of land use policies aimed at historic preservation	Percentage of land use policies aimed at historic preservation out of all policies per plan
Pamlico Sound Regional Hazard Mitigation Plan (2020)	0	0
Hurricane Matthew Resilient Redevelopment Plan (2017)	0	0
Greater Five Points Transformation Plan (2016)	1	5.9%
New Bern Area MPO Metropolitan Transportation Plan: Destination 2040 (2016)	1	25.0%

New Bern Gateway Renaissance Plan (2013)	4	30.8%
New Bern Historic Preservation Plan (2011)	7	87.5%
New Bern, River Bend, and Trent Woods Regional Land Use Plan (2010)	1	4.8%
Mean	2	22%

This can be seen in how the plans with the fewest number of historic policies (0) were the Pamlico Sound Regional Hazard Mitigation Plan and Hurricane Matthew Resilient Redevelopment Plan, while the greatest number of historic policies (7) was, unsurprisingly, in the New Bern Historic Preservation Plan. Other plans fell somewhat in the middle, with most plans including an average of two land use policies that addressed historic preservation.

City-wide policies that increased vulnerability used historic preservation as justification for economic development. Small area plans furthered this premise, especially in Greater Five Points.

Preliminary Qualitative Analysis: Local Planning Capacity for Historic Preservation Mitigation

This PIRS analysis should be grounded in the fact that strong plan integration for historic preservation could be undermined by weak local planning capacity. Rumbach et al. (2020) provides a useful framework evaluating local planning and programming capacity to implement flood risk mitigation of historic resources. The framework consists of two categories of characteristics that encompass local adaptive capacity. Following is a brief definition of each characteristic and a description of findings in New Bern (Table 7).

Institutional

The first institutional factor is participation in *Certified Local Government (CLG) and/or National Trust for Historic Preservation Main Street* programs. The CLG is an important source of local government funding and technical assistance for historic preservation nationwide. We view a local government's participation in the Main Street and CLG programs as evidence of their internal capacity to identify and reduce risk to historic properties or recover after a disaster event, and their ability to draw upon external networks and resources to help accomplish those goals.

The second institutional factor is the *staffing of a historic preservationist*. Preservation professionals can provide expert guidance during emergency management and disaster planning processes, maintain and provide data critical to recognizing and managing risk, and advocate for historic preservation needs during crises.

The third institutional factor depends on the presence and capacity of a *historic preservation institution* (e.g., *historical society or museum*). These institutions are repositories of local knowledge and institutional memory about historic resources, provide a point-of-contact during an emergency event, and can be advocates for historic preservation during complex recoveries.

Regulatory Ordinances

Rumbach et al. (2020) measured four policy tools: comprehensive plans, hazard mitigation plans, historic preservation ordinances, and floodplain management ordinances. This analysis did not use the Scorecard to evaluate historic preservation ordinances and floodplain management ordinances, but their importance in local adaptive capacity cannot be understated.

Historic preservation ordinances are local statutes that protect buildings and neighborhoods from degradation through destruction and insensitive restoration. Preservation ordinances can offer stronger protections than federal historic preservation requirements.

Floodplain management ordinances are mandated in order for communities to be eligible for subsidized insurance under the National Flood Insurance Program. The ordinance must set permit uses and limited development activities in the floodplain as well as require building standards (e.g., elevation requirements) that limit damage. The NFIP sets the minimum standards, but local floodplain management ordinances can provide stronger protections based on communities' hazard risks.

Table 7 – New Bern's Adaptive Capacity to Protect Historic Resources from Flood Risk

Adaptive Capacity Indicators	Present	Strength	Summary
INSTITUTIONAL			
Certified Local Government	Yes	Strong	<ul style="list-style-type: none"> • CLG since 1990; ordinances reviewed by State Historic Preservation Office • Main Street America pilot community (1980); hosted 2020 NC Main Street Conference
Historic preservationist on-staff	No	Weak	<ul style="list-style-type: none"> • No historic preservationist on staff but dedicated planning staff has historic preservation experience • Reliance on support in State Historic Preservation Office
Historic preservation institution	Yes	Strong	<ul style="list-style-type: none"> • Education through North Carolina History Center at Tryon Place • Active and long-standing Historical Society (1923)
REGULATORY ORDINANCES			
Historic preservation ordinance	Yes	Moderate	<ul style="list-style-type: none"> • Nine-member Historic Preservation Commission • Middle-of-the-road protections • Properties may be excluded from stricter codes or mitigation guidelines
Floodplain management ordinance	Yes	Moderate	<ul style="list-style-type: none"> • Parallels Craven County floodplain ordinance • Meets NFIP minimum requirements, including provision that historic structure alterations can be excluded from NFIP substantial damage requirements

To address the first criterion, New Bern has been a CLG since 1990 and Main Street America community since 1980 (Hanbury Preservation Consulting et al., 2011; Wetherington, 2020). Participation in the CLG program connects the City of New Bern to state and federal resources, which have the potential to increase resilience of historic resources post-disaster. At minimum, CLGs “establish a qualified historic

preservation commission; enforce appropriate state or local legislation for the designation and protection of historic properties; maintain a system for the survey and inventory of local historic resources; facilitate public participation in the local preservation, including participation in the National Register listing process; and follow additional requirements outlined in the state's CLG Procedures" (State, Tribal, Local Plans & Grants Division, n.d.). The city meets state requirements that it reviews its ordinances and guidelines by the State Historic Preservation Office and Secretary of the Interior's Standards for Rehabilitation (Hanbury Preservation Consulting et al., 2011, p. 1, section 3). Additionally, New Bern has a dedicated private non-profit, Swiss Bear, Inc., focused on downtown revitalization and maintaining Main Street America accreditation. In 2020, the city hosted the North Carolina Main Street Conference.

New Bern meets the third criterion but does not meet the second criterion. While the city supports the North Carolina History Center at Tryon Palace, and an active New Bern Historical Society was founded in 1923, there is no certified historic preservationist on staff (M. Schelly, personal communication, April 14, 2021). Instead, the Planning Department relies on historic preservation knowledge gained from experience and the American Institute of Certified Planners exam, as well as support staff in the North Carolina State Historic Preservation Office (Schelly, 2020). Fulfillment of these indicators would suggest robust support for functions that support adaptive capacity, such as education, data management, and memory keeping (Appler & Rumbach, 2016).

The City of New Bern Land Use Ordinance supports the "conservation and preservation of historic districts and landmarks" (2021, Article XXI, Section 15-411). The Historic Preservation Commission, composed of nine local members appointed by the board of aldermen, offer "middle-of-the-road" protections for historic landmarks which override owner consent (Rumbach et al., 2020, p. 9). The ordinance also prevents demolition by neglect of buildings and structures within locally designated historic districts. In findings of "undue economic hardship," owners are eligible for "property tax relief as may be allowed under the state law, loans or grants from the city, the county, or other public, private, or non-profit sources, acquisition by purchase or eminent domain, building code modifications, changes in applicable zoning regulations, or relaxation of the provisions of this article [XXI]" (City of New Bern Land Use Ordinance, 2021, Article XXI, Section 15-429(4)).

The City of New Bern Historic District Guidelines seek "to moderate changes while protecting architectural gems and reducing dislocation caused by random change" during historic property maintenance, modifications, and additions (City of New Bern, 2020, p. 1-1). This document is focused on protecting its local historic districts, New Bern and Riverside. Guidelines largely support policies given in the New Bern Historic Preservation Plan and include language on waterfront development, infill development, and public and open spaces (i.e., parks, playgrounds, sculpture gardens, etc...). The Guidelines offer some overlap between mitigation and historic preservation. There are prescriptions for storm windows and storm doors (City of New Bern, 2020, pp. 4-7), and the relocation of a historic structure is presented as "the alternative of last resort for preventing demolition" (City of New Bern, 2020, p. 6-3). However, if relocation were to occur, "preference shall be given to relocating a structure within a historic district," which could do nothing to reduce hazards vulnerability depending on the future site (City of New Bern, 2020, p. 6-4).

The City of New Bern Flood Damage Prevention Ordinance is embedded in the City of New Bern Land Use Ordinance with language that mirrors that of the Craven County Flood Damage Prevention Ordinance. Standards meet the minimum requirements set forth by the NFIP. However, historic structure alternations are excluded from substantial damage requirements and can be issued variances

as long as repair or rehabilitation of the structure does not exacerbate flooding (City of New Bern Land Use Ordinance, Article XVI, Part IV, Section 15-297(5)(d); City of New Bern Land Use Ordinance, Article XVI, Part IV, Section 15-257). While this language seems relaxed and leaves historic resources susceptible to vulnerability, it is the standard from FEMA (2018): “Although compliance is not required for substantial improvement of historic structures, owners should carefully consider the benefits of implementing measures to minimize flood damage” (p. 17).

Discussion, Study Limitations, and Recommendations

Results from this Scorecard analysis reveal that New Bern has not prioritized protection of its historic resources. Historic properties located closest to downtown are especially vulnerable to flood hazards, and land use policies in New Bern’s networks of plans work against each other to hinder the resilience of historic resources. Policies focused on development regulations policies were most common, as the city seeks to further development downtown in flood hazard zones. This was especially true in small area plans and is consistent with the trend that small area and strict plans prioritize economic development and score low for resiliency (Berke et al., 2019a).

This has significant implications for heritage tourism along Middle Street and throughout the New Bern Historic District, which was one of the first five communities accredited under the Main Street America program in 1980 (Moffat-Thomas, 2020; American Planning Association, 2010). Downtown investments have reached more than \$338 million, supporting 174 businesses and renovating more than 250 buildings (Wetherington, 2020). While this momentum may positively impact economic development, it is at odds with protecting historic resources from natural hazards. New Bern serves as both a cautionary tale and illustrative example that historic commercial sites are highly likely to be located in the floodplain (Appler and Rumbach, 2006).

Future research in this area could address some limitations of this paper. This study addressed historic resources designated on the National Register, which provide a narrow version of history. There are also unique state and local historic sites in the City, as well as countless surveyed historic resources mostly located in historically Black areas, that are not designated on the National Register list. A more robust approach to historic preservation would include an equity lens (Ruffins, 2021). Another improvement would update the plans coded to account for newly published plans, plans supporting a specific theme (e.g., parks or transportation plans) or more recent hazards and flood risk data. Overall, the findings in this paper should be considered preliminary, recognizing that the City and community stakeholders should verify the results and may provide additional contextual information.

In order to increase resiliency of historic resources, the City can follow three recommendations. The first recommendation is to analyze the results of this preliminary analysis and take steps to truly integrate their network of plans. While the development of a citywide Resiliency and Hazard Mitigation Plan is laudable, it should not be siloed, especially as competing initiatives occur such as the recent Greater Five Points overlay district (City of New Bern Land Use Ordinance Article XXIV-B). The second recommendation is for the City to leverage its CLG status and strengths in historic preservation to communicate resiliency planning and the NPS *Guidelines on Flood Adaptation for Rehabilitating Historic Buildings*. Education, training, and knowledge sharing could take place between the Development Services Department, Historic Preservation Commission, New Bern Historical Society, Swiss Bear Downtown Development Corporation, neighborhood preservation groups, and citizens. The final recommendation, building on the previous two, is that the City develop a comprehensive plan.

Comprehensive plans are crucial for resilience, systems thinking, community engagement, equity, implementation, and adaptation (Godschalk & Rouse, 2015). There is also a window of opportunity for New Bern to consider comprehensive planning per the North Carolina General Statutes Chapter 160D requirement that local governments wishing to continue land use regulations must have an updated comprehensive or land use plan by July 1, 2022 (Lovelady, 2020). While resiliency conversations are ever evolving in New Bern, these planning recommendations center the protection of historic resources at flood risk.

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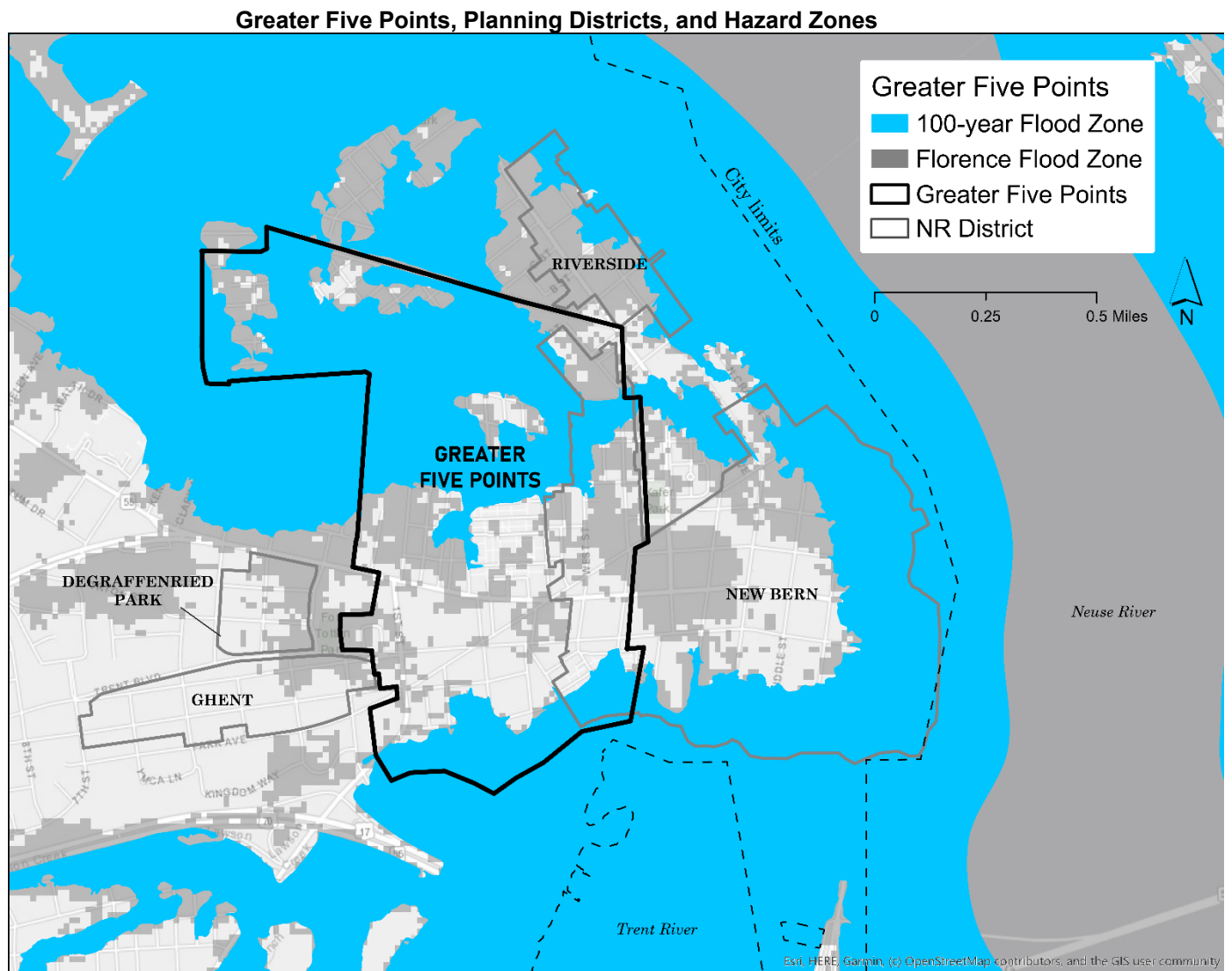
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Appendix A: District-Hazard Zones with Neighborhood Context

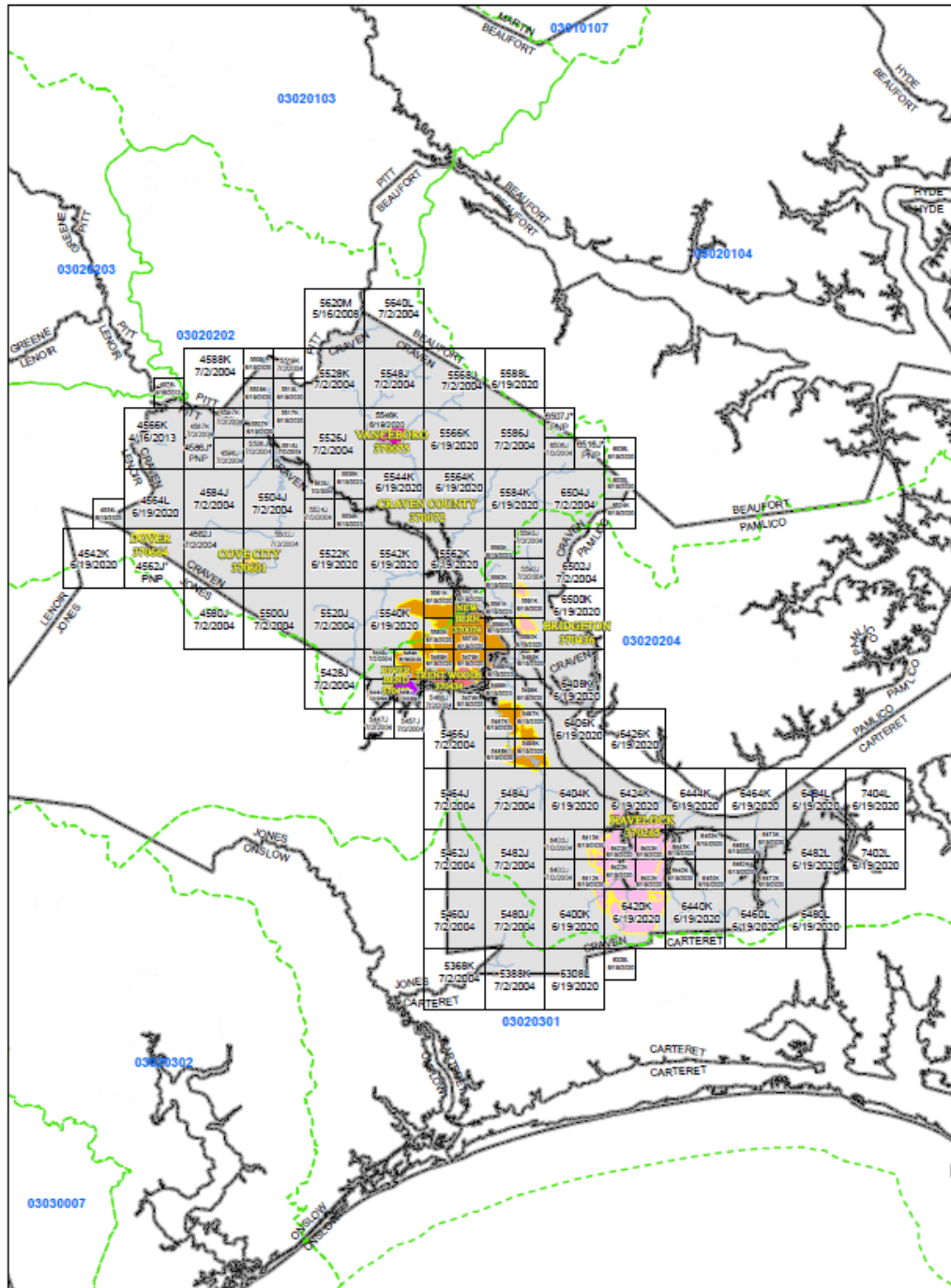


Appendix B: Data Sources

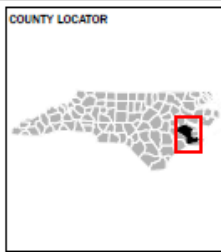
GIS Data

Date accessed	Source	Data	Layer
10/6/2020	NC DNCR/HPO	NCHPO GISdata 2020-10-06	NCHPOpoints
10/6/2020	NC DNCR/HPO	NCHPO GISdata 2020-10-06	NCHPO_NR_SL_DOE_Boundaries
10/1/2020	FRIS	Craven County	S_FLD_HAZ_AR
10/6/2020	NC OneMap	KNB	FloodExtentFlorence
4/14/2021	City of New Bern	Interactive Zoning Map	NewBern_Limits

FRIS Current effective map index for Craven County
Source: S. Fuller, personal communication, February 11, 2021



Map Projection:
North Carolina State Plane Projection Feet (Zone 3200)
Datum: NAD 1983 (Horizontal), NAVD 1988 (Vertical)
The corporate limits shown on this FRIS Index are based on the best information available at the time of publication. As such, they may be more current than those shown on FRIS panels previously issued under the North Carolina Seamless paneling scheme.
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTPS://FRIS.NC.GOV/FRIS](https://FRIS.NC.GOV/FRIS)
[HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)
SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION
*PANEL NOT PRINTED



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP INDEX

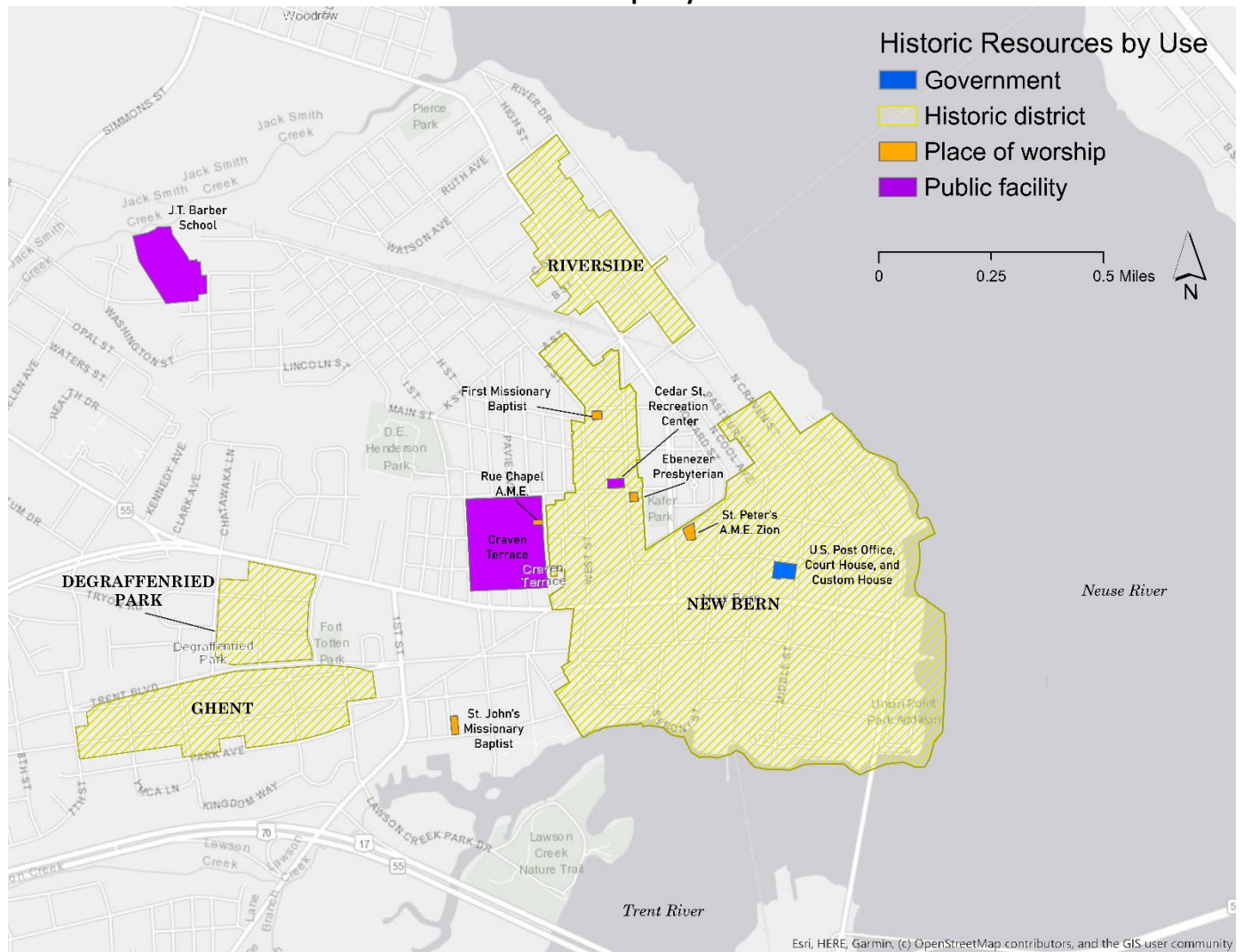
CRAVEN COUNTY, NORTH CAROLINA And Incorporated Areas

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6524, 6525, 6526, 7402, 7404

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Appendix C: Historic Resources by Use

Historic Resources Sample by Use



Appendix D: Categories of Land Use Policies

Source: Berke et al., 2015, p. 294 cited in Zito, 2020

Table 3 – Categories of Land Use Policies

Policy Category	Application to Hazard Vulnerability
Development Regulations	
Permitted Land Use	Provision regulating the types of land use (e.g. residential, commercial, industrial, open space, etc.) permitted in areas of community; may be tied to zoning code.
Density of Land Use	Provision regulating density (e.g. units per acre) on a site.
Subdivision Regulations	Provision controlling the subdivision of parcels into developable units governing the design of new development (e.g. site storm water management).
Zoning Overlays	Provision to use zoning overlays that restrict permitted land use/density in hazardous areas; may be special hazard zones or sensitive open space protection zones.
Setbacks/Buffers	Provision requiring setbacks or buffers around hazardous areas (e.g. riparian buffers and ocean setbacks).
Cluster Development	Provision requiring clustering of development away from hazardous areas, such as through conservation subdivisions.
Land Acquisition	Acquire land and purchase land/property in hazard area.
Financial Incentives and penalties	
Density Bonuses	Density bonuses such as ability to develop with greater density in return for dedication or donation of land in areas subject to hazards.
Tax Abatement	Tax breaks offered to property owners and developers who use mitigation methods for new development.
Special study	Provisions requiring impact fees or special study fees on development in hazardous areas; fees could cover costs of structural protection.
Land use analysis and permitting process	
Land suitability	Hazards are one of the criteria use in analyzing and determining the suitability of land for development.
Site Review	Provision requiring addressing hazard mitigation in process of reviewing site proposals for development.
Public Facilities	
Site public facilities	Provision to site public facilities out of hazard areas.
Capacity public facilities	Provision limiting capacity of public facilities in hazard areas to cap amount of development.
Public housing	Provision to site public housing out of hazard areas.

Source: Berke et al., 2015; Page 294

Appendix E: Policy Scores by Plan

Historic Resources Designated on the National Register	Pamlico HMP		Matthew RDP		Greater Five Points		MPO Transportation		Renaissance		Historic Preservation		Land Use (CAMA)	
	100	Flor.	100	Flor.	100	Flor.	100	Flor.	100	Flor.	100	Flor.	100	Flor.
DISTRICTS														
New Bern Historic District	—	—	0	1	-2	-4	0	0	-3	-7	0	0	-3	-3
Riverside Historic District	—	—	—	—	—	—	-1	-1	—	—	—	—	-1	-1
Degraffenried Park Historic District	—	—	—	—	—	—	0	-1	—	—	—	—	—	—
Ghent Historic District	—	—	—	—	—	—	0	0	—	—	—	—	—	—
BUILDINGS in NEW BERN HISTORIC DISTRICT														
First Missionary Baptist Church	—	—	—	—	—	—	—	—	-1	-1	-1	-1	-1	-1
Ebenezer Presbyterian Church	—	—	—	—	—	—	—	—	-1	-1	0	-1	0	-1
Cedar Street Recreation Center	—	—	—	—	—	—	—	—	-1	-1	0	0	0	-1
St. Peter's A.M.E. Zion Church	—	—	—	—	—	—	—	—	—	—	0	-1	0	-1
U.S. Post Office, Court House, and Custom House	—	—	—	—	—	—	—	—	—	—	—	—	—	—
STANDALONE BUILDINGS														
St. John's Missionary Baptist Church	—	—	—	—	0	0	—	—	-2	-2	-1	-1	-1	-1
Craven Terrace	—	—	—	—	1	0	-1	-1	-1	-1	—	—	-1	-1
Rue Chapel A.M.E. Church	—	—	—	—	—	—	—	—	-1	-1	0	-1	0	-1
J.T. Barber School	—	—	1	1	0	0	—	—	—	—	—	—	—	—
CITY OF NEW BERN	5	5	4	4	0	0	—	—	—	—	-4	-4	11	11