

How Climate Change is Forcing Local Governments to Ask Which Communities are “Worth Saving”

By: Blythe Riggan

I. Introduction

From the aptly named “Carolina Hurricanes” state hockey team to the nearly 390 storms affecting the state since 1851,¹ North Carolina is no stranger to severe weather events. Still, climate change has increased the frequency and severity of these storms, as warmer ocean temperatures increase wind strength, increase rainfall levels, and create slower, wider-ranging storms.² As of 2019, North Carolina has spent \$2.8 billion to help survivors of Hurricane Matthew and Hurricane Florence.³ Following Hurricane Florence in 2018, North Carolina Governor Cooper created the North Carolina Office of Recovery and Resiliency (NCORR) to move funding more quickly to communities and better ensure North Carolinians can withstand future storms through resiliency efforts.⁴ However, a recent poll conducted by Elon University found that among those who experienced wind or water damage,⁵ about a quarter of respondents were not receiving the help they needed to recover.⁶

In light of the increasing frequency and severity of recent storms, North Carolina must take a proactive approach to ensure that its residents can withstand flooding. As of now, the

¹ *Hurricane Statistics*, NCSU, <https://products.climate.ncsu.edu/weather/hurricanes/statistics/>.

² Veronica Penney, *What We Know About Climate Change and Hurricanes*, THE N.Y. TIMES (Aug. 29, 2021), <https://www.nytimes.com/2021/08/29/climate/climate-change-hurricanes.html>.

³ NORTH CAROLINA HURRICANE RECOVERY BY THE NUMBERS, N.C. Dep’t. of Pub. Safety, (Sept. 2019). <https://files.nc.gov/governor/documents/files/Hurricane-Recovery-By-the-Numbers-Fact-Sheet-update.pdf>

⁴ *Id.*

⁵ *Id.* (finding that one in three respondents experienced wind or tree damage on their properties, seventeen percent experienced flooding at their home or workplace, and 14.5 percent were displaced from their homes during the storm for some length of time).

⁶ *Elon Poll: After Hurricane Florence, North Carolinians Believe Climate Change Impacting Coast, Support Environmental Policy Changes*, ELON UNIV. (Oct. 11, 2018), <https://www.elon.edu/u/elon-poll/archive/2018-10-11/>.

demographics of two coastal towns, Fair Bluff⁷ and Avon,⁸ may be indicative of what level of storm relief is available to different groups of people.⁹ Furthermore, looking at historic communities like Princeville illustrates the nuance of the racial dynamics behind these decisions and the personal histories that keep community members tied to their flood-prone homes.¹⁰ Through analyzing these three communities, this paper will examine how local governments in North Carolina have historically decided which flood-prone communities are worth saving and how initiatives in neighboring Southern coastal states can be used to inform efforts to create an equitable climate resiliency and disaster relief program for coastal North Carolina.

II. Fair Bluff, North Carolina

The increased severity in hurricanes has pushed small rural towns like Fair Bluff, who were already struggling economically, to the point of bankruptcy.¹¹ Just a few months after Hurricane Matthew in 2016, Fair Bluff's only factory closed and, as a result, the population of around one thousand fell by about half.¹² Fair Bluff no longer can bounce back after hurricanes. After repeated damage from both Hurricane Matthew and Florence (2018), the only business that has consistently been re-built after each storm is the Post Office. It is estimated to cost 10 million dollars to clear the old downtown area.¹³ Even though the federal government and private

⁷ UNITED STATES CENSUS BUREAU, *Fair Bluff town, North Carolina*, <https://data.census.gov/cedsci/profile?g=1600000US3722240> (last visited Jan. 14, 2022).

⁸ UNITED STATES CENSUS BUREAU, *Avon CDP, North Carolina*, <https://data.census.gov/cedsci/profile?g=1600000US3702780> (last visited Jan. 14, 2022).

⁹ See Christopher Flavelle, *Which Towns Are Worth Saving?*, THE N.Y. TIMES (Oct. 11, 2021), <https://www.nytimes.com/2021/10/11/podcasts/the-daily/climate-crisis-resilience.html?showTranscript=1> [hereinafter *Which Towns*].

¹⁰ See Christopher Flavelle, *Climate Change Is Bankrupting America's Small Towns*, THE N.Y. TIMES (Sept. 2, 2021), <https://www.nytimes.com/2021/09/02/climate/climate-towns-bankruptcy.html> [hereinafter *Climate Change*].

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

companies have expressed interest in investing in Fair Bluff,¹⁴ these efforts may not be enough—especially as federal agencies continue to pay residents to leave.¹⁵

After Hurricane Matthew, the Federal Emergency Management Agency (FEMA) planned to buy thirty-four houses in Fair Bluff in order to demolish them (so far only fourteen have been purchased).¹⁶ While these buyouts protect residents by getting them out of homes likely to flood, the program can also make it more difficult for communities to remain economically viable since FEMA requires that no new homes be built on the property as a condition of the buyout.¹⁷ This stipulation in FEMA’s buyback program directly affects the community’s economy, because the community is no longer able to collect property taxes from the unoccupied purchased lots and businesses struggle to remain open as residents leave the area.¹⁸

With a median household income of \$20,000 a year and a population consisting mainly of retirees, Fair Bluff continues to heavily rely on grants to slowly rebuild and fund basic services.¹⁹ Governor Cooper recently signed a spending bill that allocates \$450,000 to Fair Bluff for the “abatement of destroyed buildings from Hurricanes Matthew and Florence.”²⁰ However, a climate resiliency effort built solely on piecemeal state and federal grants, coupled with a declining population, forces local government officials to confront the possibility that the town may be beyond the point of economic viability.²¹ As the town receives state grants the moment that FEMA buyback programs lure residents away, Fair Bluff illustrates how crucial a coherent and equitable climate resiliency plan is for the viability of low-income coastal communities.

¹⁴ *Id.* The Economic Development Administration, part of the U.S. Department of Commerce, announced \$4.8 million grant to build a small business center. *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Climate Change*, *supra* note 10.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ 2021 N.C. Sess. Laws 180.

²¹ *See Climate Change*, *supra* note 10.

III. Princeville, North Carolina

Following the aftermath of Hurricane Floyd in 1999, which damaged or destroyed one thousand homes in Princeville, FEMA offered to buy out every home in the small coastal town.²² Town officials wanting to preserve Princeville, the first town in America chartered by freed enslaved people, refused the offer.²³ After Hurricane Matthew flooded the town again in 2016, Congress tried a new approach, allocating \$40 million for the US Army Corps of Engineering to build system of levees and other flood protections.²⁴ But as the Corps proceeds with the new project, FEMA and the Department of Housing and Urban Development (HUD) have begun paying for the state to demolish forty-nine homes.²⁵ Similar to FEMA's involvement in Fair Bluff, Princeville serves as an example of when well-meaning efforts from federal agencies can threaten a community's economic viability.²⁶ While property teardowns and buyouts are primarily aimed at removing individuals from flood-prone areas, they also draw residents away from towns and further shrink the tax base a result – negatively impacting the residents who chose to remain in the community.²⁷

However, Princeville further poses the unique question of whether the historical legacy of a town can live beyond the town's physical existence. In a town that remains 96 percent Black

²² *Id.* “We were a small town before the hurricanes, we’re much smaller after the hurricanes,” Al Leonard, the town planner responsible for Fair Bluff’s recovery, told *The New York Times*. “Fair Bluff’s recovery will go as far as someone else’s money will take us.” *Id.*

²³ *Id.*

²⁴ Roy Cooper, *Governor Cooper Statement on Announcement of Federal Funds for Princeville*, GOVERNOR.NC.GOV (Jan. 10, 2020), <https://governor.nc.gov/news/governor-cooper-statement-announcement-federal-funds-princeville>.

²⁵ *Climate Change*, *supra* note 10.

²⁶ “Buyouts protect people by getting them out of homes likely to flood,” David Maurstad, head of insurance and mitigation at FEMA told *The New York Times*. But Maurstad also acknowledged that it makes it harder for towns to stay economically viable. “That’s a real challenge for communities,” he said. *Id.*

²⁷ “If we are seeing significant numbers of people who want to stay in Princeville, then I want them to be protected,” NCOOR chief operating officer, Laura Hogshead, who manages the state’s relief funding from HUD, told *The New York Times*. “If everyone’s going to move, then that’s a different conversation.” *Id.*

and where extended families have proudly lived for generations, many residents are determined to rebuild.²⁸ On the other hand, other residents argue that the history of Princeville will never be lost.²⁹ Angela Mallory-Pitt, whose house flooded after Hurricane Matthew, wants the option to move from the flood-prone area and believes that the town's founders would have wanted better for their community.³⁰ Mallory-Pitt also argues that the founders would have settled their community on safer land if they had the opportunity to do so, a belief that is shared with Richard M. Mizelle, Jr., an associate professor of history at the University of Houston.³¹ In his 2016 piece, Mizelle tied Princeville's location to environmental racism, a concept he describes as when Black Americans are forced to live in communities within society that are or are becoming environmentally compromised.³² As Mizelle wrote on Princeville's founders' selection of location, "their existence in this space was not a matter of chance or choice, but instead the discarded and unwanted space was what former slaveholders allowed them to occupy."³³

Princeville's tax revenue continues to shrink as more residents leave and as a result, the historical town has been forced to rely on the surrounding county to handle policing, water and sewer services, and tax collection.³⁴ The town also depends on a contractor for basic services such as trash pickup.³⁵ As his town continues to weather severe hurricanes,³⁶ Mayor Bobbie

²⁸ Jess Bidgood, *A Wrenching Decision Where Black History and Floods Intertwine*, THE N.Y. TIMES (Dec. 10, 2016), <https://www.nytimes.com/2016/12/09/us/princeville-north-carolina-hurricane-matthew-floods-black-history.html>.

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.*

³² Richard M. Mizelle, Jr., *Princeville and the Environmental Landscape of Race*, OPEN RIVERS (Spring 2016), <https://editions.lib.umn.edu/openrivers/article/princeville-and-the-environmental-landscape-of-race/>.

³³ *Id.*

³⁴ *Climate Change*, *supra* note 10.

³⁵ *Id.*

³⁶ Sue Anne Pressley, *Princeville, N.C., Settled by Freed Slaves in 1865, Faces a New Struggle for Survival After Hurricane Floyd*, WASH. POST (Oct. 3, 1999), <https://www.washingtonpost.com/archive/politics/1999/10/03/princeville-nc-settled-by-freed-slaves-in-1865-faces-a-new-struggle-for-survival-after-hurricane-floyd/2e24f610-df0e-46f0-a0d0-274390d5d9e2/>.

Jones is trying to bring residents and businesses back so that Princeville can be self-sufficient once more.³⁷ “[We’re] the oldest town chartered by Blacks in America,” Mr. Jones told *The New York Times*.³⁸ “We want to make sure that everything that all other towns have, that we have the same services for ourselves.”³⁹ Opposing views within Princeville, like Jones’ and Mallory Pitt’s, represent the tension underlying the dilemma faced by historical coastal communities: how long should a town fight storms in the name of legacy?

IV. Avon, North Carolina

Meanwhile, hundreds of miles up the coast, Avon’s county manager Bobby Outten continues to remind his wealthy, majority White residents that they can only rely on themselves for recovery efforts.⁴⁰ With only a few hundred full-time residents (many properties are vacation homes) and a bustling economy fueled by tourism, Avon is precariously located on a sandbar of an island chain and relies on Highway 12, a two-lane road, as the only connection to the mainland.⁴¹ Over the past decade, hurricanes have caused \$65 million in damage to Highway 12.⁴² Federal and state governments are investing \$155 million to replace a section of Highway 12 with a 2.4-mile bridge, as the road can no longer be protected from the ocean.⁴³

North Carolina and FEMA also recently approved a hazard mitigation project grant of \$4,279,058 to elevate thirty-one flood-prone homes in Dare County (the county in which Avon

³⁷See *Climate Change*, *supra* note 10.

³⁸*Id.*

³⁹ *Id.*

⁴⁰ Christopher Flavelle, *Tiny Town, Big Decision: What Are We Willing to Pay to Fight the Rising Sea?*, THE N.Y. TIMES (Mar. 14, 2021), <https://www.nytimes.com/2021/03/14/climate/outer-banks-tax-climate-change.html> [hereinafter *Tiny Town*].

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

sits), in an effort to improve disaster resilience following Hurricane Florence.⁴⁴ However, Avon has been less successful in acquiring federal and state funding for one resiliency effort in particular, a beach nourishment project, which involves dredging sand from the ocean floor a few miles off the coast and then pushing it to shore through a pipeline and layering it on the beach.⁴⁵ Dare County wants to put about one million cubic yards of sand on the beach which would cost anywhere between \$11 million and \$14 million and would need to be repeated every five years.⁴⁶ After a failed attempt at acquiring state and federal funding, Dare County now plans to source the funding from a tax on tourists and a property tax surcharge on local homes.⁴⁷ Homeowners on the ocean side of the road would pay an extra twenty-five cents for every one hundred dollars of assessed value — an increase of 45 percent over their current tax rate.⁴⁸ On the inlet side, the extra tax would be just one-fifth that much.⁴⁹

Although affluent communities like Avon can buy borrowed time with a round of beach enrichment, it is unclear whether these expensive solutions can offer long-term relief.⁵⁰ While the existential threat of climate change serves as the worst kind of equalizer in this sense, it also forces local governments to decide whether it is economically viable in the long term to save their town. In the absence of high demand state and federal funding, the determining factor for how long a town can last is how much money it can muster up through taxes.⁵¹ While this would

⁴⁴ Press Release, Over \$4.2 Million Approved to Elevate Homes in Dare County, N.C. DEP'T. OF PUB. SAFETY (Aug. 19, 2021), <https://www.ncdps.gov/news/press-releases/2021/08/19/over-42-million-approved-elevate-homes-dare-county>.

⁴⁵ *Tiny Town*, *supra* note 40.

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Which Towns*, *supra* note 9.

⁵¹ *Tiny Town*, *supra* note 40.

mean increasing property taxes by almost 50% for some in Avon, Outten continues to remind homeowners that, “there’s nobody coming to the rescue. We have only ourselves.”⁵²

V. Potential Solutions Found in Other Coastal Communities

Nearby coastal states, like Florida,⁵³ South Carolina,⁵⁴ and Virginia⁵⁵ are useful exemplars for North Carolina because of their proximity and similar vulnerability to hurricanes. Each of these states have also adopted climate resiliency measures similar to Cooper’s NCORR, which include comprehensive resiliency plans for towns, funds for local governments to voluntarily buy out properties that have flooded repeatedly, and pre-disaster mitigation strategies.⁵⁶ These measures have a successful track record; NCORR awarded \$47.3 million in grants and loans for local government disaster recovery last year.⁵⁷ However, many of these resiliency programs and measures are still in their infancy and littered with vague, aspirational language with track records still too short to document any meaningful progress.

While NCORR also committed to funding more than one thousand new affordable housing units in regions of North Carolina hard-hit by Hurricane Matthew and Florence,⁵⁸ most of the existing measures in coastal states have a greater impact on affluent, high-tourism areas

⁵² *Id.*

⁵³ *Resilient Tampa: Transforming Our City's Tomorrow*, CITY OF TAMPA (May 2021), <https://www.tampa.gov/sites/default/files/document/2021/Resilient%20Tampa.pdf>.

⁵⁴ Michelle Lu, *New S.C. Law Creates Resilience Office to Address Flooding*, AP NEWS (Oct. 13, 2020), <https://apnews.com/article/climate-climate-change-floods-weather-south-carolina-e96deb9bfd2179778b123a7430b035cf>.

⁵⁵ *Northam Acts to Better Prepare Virginia for Climate Change*, S. ENV'T L. CTR. (Nov. 8, 2018), <https://www.southernenvironment.org/news/northam-acts-to-better-prepare-virginia-for-climate-change/>.

⁵⁶ *Regions Innovating for Strong Economies and Environment (RISE) Program*, REBUILD NC, <https://www.rebuild.nc.gov/resiliency/resilient-communities/rise>.

⁵⁷ Press Release, State Awards \$47.3 Million in Grants and Loans for Local Government Disaster Recovery, N.C. DEP'T OF PUB. SAFETY (Sept. 24, 2020), <https://www.ncdps.gov/news/press-releases/2020/09/24/state-awards-473-million-grants-and-loans-local-government-disaster>.

⁵⁸ Press Release N.C. Office of Recovery and Resiliency Commits to Funding More than 1,000 New Affordable Housing Units in Hurricane-Impacted Regions, N.C. DEP'T OF PUB. SAFETY (Sept. 24, 2020), <https://www.ncdps.gov/news/press-releases/2021/10/26/nc-office-recovery-and-resiliency-commits-funding-more-1000-new>

like Avon than Fair Bluff or Princeville. This inequity is demonstrated by South Carolina's bill that permits local governments, like Charleston's City Council, to use hospitality taxes to pay for flooding and drainage projects in tourist areas.⁵⁹ As Charleston begins to build a \$1.1 billion seawall to protect the city's downtown peninsula, it serves as an example of a community whose affluence and high-end tourism can afford them a certain level of climate solutions, similar to Avon. Furthermore, Charleston reflects how climate resiliency plans can have a significantly different effect on members within the same community, as Charleston's most expensive proposal to date is set to only protect the downtown, excluding areas like Church Creek basin, where flooding in the past six years has severely damaged some homes.⁶⁰ Charleston is a useful example because it is a popular, coastal tourist destination like many towns on the coast of NC. It also is a powerful example of a plan that benefits the most affluent portions of a community, an approach North Carolina should avoid when working towards a more equitable climate resiliency plan.

Rather, North Carolina should look to Houston, Texas as one example of an environmental justice-informed approach to climate resiliency in coastal communities. In 2017, Hurricane Harvey damaged up to 85 percent of the structures in Houston, with only fifteen to twenty percent of its residents having flood insurance.⁶¹ A Kaiser Family Foundation study found that three in ten (29%) of all affected residents fell behind in their rent or mortgage

⁵⁹ Lu, *supra* note 54.

⁶⁰ Chloe Johnson, *Charleston Presents First Plan to Pay Its Share of the \$1.1B Storm Surge Wall*, POST AND COURIER (Oc. 22, 2021), https://www.postandcourier.com/environment/charleston-presents-first-plan-to-pay-its-share-of-the-1-1b-storm-surge-wall/article_25b0b8ec-3345-11ec-831d-7369a7373512.html.

⁶¹ Juan Lozano, *Year after Harvey, Poor Having Toughest Time Recovering*, AP NEWS (Aug. 23, 2018), <https://apnews.com/article/north-america-tx-state-wire-hurricane-harvey-us-news-ap-top-news-3c440decfcee4aa09ddf10d4e5223d62>.

payments following the storm.⁶² These setbacks were felt largest among Hispanic (36%) and Black residents (31%) and those with self-reported incomes below the federal poverty level (40%).⁶³ The following summer, Harris County residents approved a \$2.5 billion bond to fund more than 500 flood-control projects over several years, the largest of its kind in Houston’s history.⁶⁴ Notably, the Harris County commission, tasked with deciding how the \$2.5 billion would be spent, opted for a relief approach based on social vulnerability instead of cost-benefit analysis.⁶⁵

Generally, local governments use a fiscal cost-benefit analysis to decide where to allocate money on flood protection, dedicating money to the highest property values for a return on investment.⁶⁶ However, the Harris County commission decided to rank projects based on “social vulnerability” factors — an index created by the U.S. Centers for Disease Control and Prevention that reflects “what share of residents are minorities, can’t speak English, lack a job, are older, live in mobile homes, don’t have cars or face other challenges.”⁶⁷ By prioritizing disadvantaged neighborhoods that have the hardest time recovering, Houston is working to mitigate the cycle of decline faced by communities of color in flood zones.⁶⁸

While opponents have criticized the program as a biased political move that prioritizes voters who elected the largely Democratic Harris County commission, advocates have lauded the

⁶² *An Early Assessment of Hurricane Harvey’s Impact on Vulnerable Texans in the Gulf Coast Region*, KAISER FAM. FOUND. (Dec. 5, 2017), <https://files.kff.org/attachment/Report-An-Early-Assessment-of-Hurricane-Harveys-Impact-on-Vulnerable-Texans-in-the-Gulf>.

⁶³ *Id.*

⁶⁴ Christopher Flavelle, *A Climate Plan in Texas Focuses on Minorities. Not Everyone Likes It.*, THE N.Y. TIMES (July 24, 2020), <https://www.nytimes.com/2020/07/24/climate/houston-flooding-race.html> [hereinafter *Climate Plan in Texas*].

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

new approach as long overdue.⁶⁹ Environmental experts have criticized the standard cost-benefit approach as having a similar effect to redlining by reinforcing historical discrimination through deciding which people get protection based on property values.⁷⁰ By focusing on higher property values, the cost-benefit approach fails to address the true need in communities and continues to keep property values in minority neighborhoods low.⁷¹

A justice-based approach would be especially applicable to North Carolina for many reasons, one of which being the State's significant amount of hog farms; North Carolina had at least 50 hog lagoons overflow in the aftermath of Hurricane Florence.⁷² Hog lagoons function to collect waste on hog farms, with the waster mixing with water in order to break the feces down.⁷³ Flooding from hurricanes can cause the lagoons to overflow, carrying harmful bacteria such as *E. coli*, *salmonella*, and *cryptosporidium* into surrounding rivers and streams, ultimately ending up in the wells of North Carolinians.⁷⁴ African-American, Hispanic, and American Indian residents in southeastern counties, where the concentration of pig farms is heaviest, are already disproportionately affected by the air and water pollution from animal farming.⁷⁵ The flow of bacteria infested floodwaters from hog lagoons into these communities only threatens to further harm these vulnerable communities.⁷⁶

VI. Conclusion

Examining the resiliency solutions available to Fair Bluff, Princeville, and Avon, demonstrates how current responses climate change exacerbate inequality in coastal

⁶⁹ *Id.*

⁷⁰ *Climate Plan in Texas, supra* note 70.

⁷¹ *Id.*

communities. Fair Bluff, a low-income community, is struggling to rebuild the backbone of their town; the school and grocery store have yet to reopen following Hurricane Matthew almost five years ago.⁷⁷ Princeville, a community made historic by its founders' radical self-sufficiency, currently struggles to provide basic services to its residents.⁷⁸ Meanwhile, the affluence of Avon's homeowners and the revenue source from its tourists has permitted a comparably sized and similarly flood-prone city to not only rebuild, but also operate in a way that prevents damage in the near future.⁷⁹

As seen by similar approaches in coastal communities like Charleston, a patchwork reliance on the tourism industry or homeowner's ability to pay heavily increased property taxes only further promotes inequity within climate resiliency solutions. In order to adopt an environmental justice-informed approach to climate resiliency in its coastal communities, North Carolina should adopt a method similar to Houston's equitable approach and provide relief based on social vulnerability on a local level, in addition to building out NCORR's grant opportunities and resources to ensure equity between communities on a larger state level.

⁷⁷ *Climate Change*, *supra* note 3.

⁷⁸ Bidgood, *supra* note 28.

⁷⁹ *Tiny Town*, *supra* note 40.