THE INDIVIDUAL AND COMMUNITY EFFECTS OF TROPICAL STORM FRED ON HAYWOOD COUNTY, NORTH CAROLINA

A Thesis
by
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Abstract

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On August 17, 2021, the remnants of Tropical Storm Fred (TSF) tore through Western North Carolina. The flash floods and landslides it caused were particularly severe along the Pigeon River in Haywood County. To study the effects TSF had on individuals and communities in Haywood, I conducted a series of ten interviews with 12 people associated with the communities of Canton and Cruso. I then transcribed the interviews and analyzed them for emergent themes. I found ten major themes in interview responses, five pertaining to individual effects (i.e., post-flood emotions, long-term individual trauma, attitudes towards the Federal Emergency Management Agency's response, attitudes towards the government's response, and concern for future floods) and five related to community effects (i.e., the relationship between TSF and the COVID-19 pandemic, the relationship between TSF and climate change, post-flood community cohesion, community-initiated cleanup, and TSF in collective memory). I conclude the thesis by discussing its limitations, comparing TSF and the 2022 Eastern Kentucky floods, and outlining future research opportunities.

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Thank you to K and M, my two community contacts who provided me with contact information for potential respondents. Thanks also to Vicki Hyatt, who graciously agreed to discuss her reporting on Fred with me and who also provided me with valuable contact information. No one deserves my gratitude more than the 12 individuals who took the time to talk about their flood experiences with me. I hope this thesis does justice to you and your communities.

Thank you to my parents, Beth and Doug, who have nurtured and supported me for my entire life and who have the strongest work ethics of any two people I have ever met. Thanks also to my sisters, Molly and Melissa; my brothers-in-law, Mark and Phil; and my nephew and nieces, Milo, Greta, and Beatrice. Last but certainly not least, thank you to Jonathan. You will always be my number one supporter.

Dedication

For the six victims who lost their lives to Tropical Storm Fred, the countless individuals whose lives were upended by this disaster, and all of the people of Haywood County.

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CHAPTER 1: INTRODUCTION

INTRODUCTORY REMARKS

Haywood County is nestled in Western North Carolina (WNC), along the Tennessee state border. Historically, it has been known throughout the region for its pulp mill located in Canton, which has provided residents with steady job opportunities since the early 20th century. In recent years, however, it has gained a new reputation as being flood-prone, particularly with regards to communities situated along the Pigeon River. Although the Pigeon River has always flooded, two recent instances stand out in the minds of locals as being especially severe: the 2004 flood and the 2021 flood. The first was a slow inundation over several weeks that was the result of the "double whammy" of the remnants of Hurricane Frances and Hurricane Ivan. The floods and mudslides these hurricanes led to caused widespread property damage throughout Haywood but resulted in no deaths in the county. The second instance was caused by Tropical Storm Fred (TSF) and led to flash floods and a major landslide, ultimately resulting in six deaths in the small hamlet of Cruso and property damage worth millions of dollars. In this thesis, I use interview data to examine the individual and community effects of TSF. To provide context for this analysis, in this chapter I present background information on the demographic characteristics, geography and settlement, politics, religion, economy, environmental issues, and flood history of Haywood County. I then summarize TSF and offer a roadmap for my remaining chapters.

A BRIEF INTRODUCTION TO HAYWOOD COUNTY

Demographic Characteristics

The 2020 US Census provides an informative picture of how Haywood County compares to the rest of North Carolina and the United States. According to V2021 Census estimates, Haywood County has an approximate population of 62,476, compared to the total populations of 10,595,885 in NC and 332,031,554 in the US. In Haywood, 91.4% of the population are non-Hispanic whites, compared to 61.9% of the NC population and 59.3% of the US population. The percentage of persons 65 years and older in Haywood is 25.1%, compared to 17.1% in North Carolina and 16.8% in the US. The proportion of the population above age 25 that holds a high school degree or equivalent is 89.7% in Haywood, which is similar to the rates in NC (90.0%) and the US (88.9%). In contrast, Haywood has fewer adults with college degrees (27.7%) than the rest of the state (33.0%) and the country (33.7%). This level of education likely relates to Haywood's lower median household income, which is $52,063, compared to the state median, which is $60,516, and the national median, which is $69,021. For context, the median rent in Haywood is $848 per month, which is substantially less than both the state median of $988 per month and the national median of $1,163 per month. When taken together, this data shows that Haywood County tends to be whiter, older, less densely populated, and with less advanced education compared to the rest of the state and country, and that the county has a comparatively lower median income and median rent (US Census Bureau 2023a; US Census Bureau 2023b; US Census Bureau 2023c).

Geography and Early Settlement

Haywood County is located in WNC along the Tennessee border. It is 554 square miles in area and contains both lofty mountain peaks (the highest point is Mount Guyot at 6,622 feet) and lowlands less than 1,500 feet above sea level. Four mountain ranges of Southern Appalachia meet in Haywood: the Newfound Mountains, the Great Smoky Mountains, the Great Balsam Mountains, and the Plott Balsam Mountains. Waters from these four ranges drain into the Pigeon River, which stretches for 40 miles across the county and is divided into an east fork and a west fork on each side of the Shining Rock Ledge, before meeting near Bethel (Ross 2009a).

White colonizers began to settle in what would become Haywood County in the late 1700s. Although there is evidence that Cherokees and perhaps other indigenous groups lived in the area sporadically from 8000 B.C.E. until the early 1700s, archaeologists are fairly certain that they left in the early 1700s due to the smallpox epidemic that was raging across the continent, meaning that the area was significantly depopulated during this period. It remained sparsely populated until the 1780s, when veterans of the Revolutionary War began to settle there, having become familiar with it during the Rutherford's Trace campaign. White settlement in Haywood and WNC more broadly continued to increase due to land cessions, land theft, and the Trail of Tears in the following decades (Finger 1995; Webb 2006; Ross and Beadle 2009).

Haywood County was formally incorporated on November 25, 1808. The NC General Assembly created Haywood by sectioning off the western part of Buncombe County, up to the Tennessee line. The reasoning behind this division was that Asheville, the county seat, was as far away as 60 miles for some residents, and at the time, such a journey could take

several days. This distance made it burdensome for some Buncombe County dwellers in the west to conduct their business. In 1810, Waynesville was officially deemed the county seat of Haywood, and the courthouse opened for business there at the end of 1821. Waynesville would remain fairly small until the late 19th century, when hotels began to attract "summer folks" and WNC became known to tourists as "the land of the sky" (Webb 2006:30, 43). Although there are many communities of various sizes in Haywood County, the present thesis focuses on two locations in the eastern part of the county: Canton, which was established in 1895, and the unincorporated community of Cruso, which is approximately 13 miles south of Canton (Webb 2006; Starnes 2009).

Politics

At the time of its formation in 1808, many Haywood County residents identified with the Jeffersonian Democratic-Republican Party due to its emphasis on farming and individualism. As American politics developed, Haywood County residents continued to hold an affinity for populism and began to support Andrew Jackson's Democratic Party in the 1830s due to policies like "extending the right to vote and Cherokee removal" (Starnes 2009:106), issues that were important to many Haywood voters (this latter point despite the demographics that show there were very few Cherokees in Haywood after the early 1700s). In the 1850s, despite having a low population of enslaved people (313, or 5.4% of the total population, in 1860), many in Haywood County supported slavery and feared its demise due to the county's economic relationship with the lower South. This fear was reflected in the county's support for secession: in February 1861, 62% of Haywood voters voted for a secession convention, compared to a state level of slightly less than 50%. When the Civil

War broke out later that year, many men from Haywood County fought for the Confederacy. During Reconstruction, there was a brief period in which Republicans wielded political power in Haywood, but by 1876, the county was staunchly Democratic once again, and would generally remain so until the 1950s (Starnes 2009).

Support for Democrats in Haywood County continued throughout the Great Depression and World War II due to "political loyalty following voters' economic interests" (Starnes 2009:115). However, this trend would not continue forever, and by the 1950s, Republicans began to gain favor in Haywood due to the unpopular Korean War and white backlash against local civil rights activism by the National Association for the Advancement of Colored People. In 1960, Haywood residents voted for Richard Nixon and would continue to support Republican presidential candidates from that point on. However, Democratic power was not entirely absent in Haywood in the latter part of the 20th century: although Republicans dominated larger elections, many local Democrats continued to see success in smaller elections. As community demographic characteristics have changed, political trends have changed as well; for example, the recent influx of retirees into Haywood County has "increased the number of registered Republicans" (Starnes 2009:117). Haywood is not entirely devoid of progressive voters, yet it is clear that over the past 60 years, county-wide allegiances have swapped from Democrat to Republican, a trend that is observable in many rural communities throughout the nation. In the 2020 election, 62.49% of the vote in Haywood went to Trump while 35.97% went to Biden, mirroring the trend established by Starnes that Haywood voters now reliably vote for Republican presidential candidates (Starnes 2009; NCSBE 2022).

Religion

Inspired by the Great Awakening, Presbyterians began to organize in Haywood in the early 1800s, with Baptists and Methodists following suit soon thereafter. Due to the county's sparse population and limited resources for constructing buildings, disparate denominations often shared resources, from physical structures to educational materials, and often attended the same camp meetings. This cooperation led to a "cross-pollination" of traditions, in which customs typically associated with one group are practiced by a different group (e.g., Methodists partaking in river baptisms, which are more commonly associated with Baptists) (Ross 2009b).

As time wore on, Presbyterians declined in number throughout Haywood. One reason for the decline was the different requirements for clergy; whereas Presbyterians required their ministers to go through seminary, Baptists and Methodists were looser in their expectations. Although Methodist ministers had to be ordained, in 1800s America, many were ordained by traveling clergy like Francis Asbury, who visited Haywood in 1810 and 1813 (Ross 2009b:294). Baptists required even fewer formalities and emphasized a divine call from God over formal training. Although Presbyterians in Haywood increasingly flocked to other types of churches, they did not lose their theology; on the contrary, they brought their Calvinistic beliefs of predestination and the inerrancy of the Bible with them, which would influence certain Baptist churches and lead to division into different sub-denominations, a trend seen throughout Appalachia during this period. As Presbyterian numbers declined, Baptist and Methodist numbers grew (Ross 2009b). Today, local churches continue to dominate the landscape in Haywood County and have played an important role in flood relief during the 21st century, as I discuss throughout this thesis.

Economy

In the early years of the county, gristmills were an important part of the local economy. The large amount of grain processed at these mills led to many successful local general stores, whose importance increased as people began to grow surplus agriculture. Many of these general stores relied more on a barter system than on money exchange, although this economic reality would change as large-scale industry began to move into Haywood at the turn of the century. As the 1800s progressed, these general stores also began to sell manufactured items. Thanks to the antebellum road system that connected parts of WNC to the rest of the country, merchants in Haywood were able to stock items from the greater Appalachian and Southern regions (Willis 2009). This infrastructure challenges the typical view of preindustrial Appalachia as being "isolated" from larger regional and national economies, as McKinney (1995) establishes.

Despite early economic success, Haywood County was economically affected by the Civil War, as was the larger South. Many families were forced back into subsistence roles after the war (Willis 2009). Things began to look up about 20 years after the war, however, when the Western North Carolina Railroad arrived in Waynesville in 1884 and attracted "capital for both industry and tourism" (Starnes 2009:109). The coming of the railroad "opened up" Haywood County in several ways. Most importantly, it altered the way that timber was harvested. Prior to the railroad, residents logged the surrounding forests on a small scale to supplement their primary incomes, which usually derived from farming. Since this harvesting method was done by local people in the immediate area, the money generated from small-scale logging tended to stay in the local economy. However, businessmen saw an investment opportunity when the old-growth forests surrounding Haywood became more

accessible thanks to the railroad, and they began to use heavy machinery to clear cut large tracts of virgin forest. This intensive logging generated a lot of money, but it tended to line the pockets of absentee elites rather than local people. Locals began to quit their agricultural jobs and entered the more lucrative logging industry (Willis 2009).

The growth of the logging industry in Haywood County paved the way for the establishment of Canton's Champion Fibre Company. Founded in 1908 by Peter G. Thompson, Champion was a pulp mill. In addition to logging, Thompson chose Canton as the site for Champion due to its location on the Pigeon River, which would serve as a convenient place to dump the mill's waste. Canton's population boomed after Champion was built and provided employment opportunities for many residents. By 1940, the county had 2,100 employees in the manufacturing sector, with most of those working at Champion. These employees enjoyed wages that consistently "surpassed both state and national averages, while unemployment usually ran about half as high" (Varat 2006:467). Although locals immediately saw the economic benefits of Champion, people downstream in Cocke County, Tennessee, had a critical perspective on the mill due to the "black, foamy, odoriferous pollution that [Champion] was discharging into the Pigeon River" and which made its way to their community (Varat 2006:466). This pollution continued until the mid-1980s, as I discuss later in this chapter.

Despite being the uncontested economic powerhouse of Haywood County for 50 years and weathering national crises such as two World Wars and the Great Depression, Champion's dominance began to wane in the 1960s due to increased competition and mechanization. Champion sold the mill following a lawsuit by the Environmental Protection Agency (EPA), and unionized employees ran it as Blue Ridge Paper Products beginning in

1999 (Varat 2006). The mill still operates today as Pactiv Evergreen, Inc, and many local residents continue to work there. In early March, 2023, Pactiv officials announced that they would be closing the mill in June of that year (WLOS 2023).

Although Champion dominates the economic history of Haywood, other industries and companies are also worth mentioning. For example, locals mined copper, iron, kaolin, and mica on a small-scale at the turn of the century, the latter two minerals being particularly abundant and profitable. Mica was an integral part of the local economy through World War II due to its use as an insulator. Haywood has also been home to other manufacturing companies, such as Wellco, which produced shoes for the military and general consumers, and Dayco, which produced rubber. Both of these factories were based in Waynesville, and although they contributed to Haywood's economy for almost 100 years, they are now both shuttered. Royal and Pilkington, a textile company, also had a presence in Haywood from the 1930s until its closure in 1968 (Willis 2009). These companies once held an important place in the economy of the entire WNC region, yet today are either closed or facing imminent closure. These shifts are illustrative of a broader trend of the decline of manufacturing that is in no way unique to Haywood County or even Appalachia.

Environmental Issues

In 1986, the US Department of Energy (DOE) announced that it was considering building a nuclear waste dump in a 105 square mile area of Haywood, Buncombe, and Madison Counties. At this time, Haywood residents were distrustful of nuclear energy due to highly publicized disasters, such as those at Three Mile Island and Chernobyl. Their concerns were exacerbated when, shortly after the DOE announced their plans, a truck carrying low-

level nuclear waste crashed in Haywood County. Residents feared that such accidents would become more frequent if plans for the dump came to fruition (McKinney 2005).

Within the three counties, a broad coalition of people came together to protest the dump. In Haywood County, residents organized the Haywood Anti-dump Leadership Team (HALT), which united "chambers of commerce, labor unions, church groups, doctors, tourism officials, real estate agents, business and professional organizations and county government" (McKinney 2005:335-336). Alongside similar groups in the other two counties, they used several strategies in their efforts to fight the dump, including (1) emphasizing the traumatic history of government-enforced removal in WNC; (2) pointing out the economic strain the dump would have on the region, especially with regards to tourism and the second-home market; and (3) noting the geological hazards of building a nuclear waste dump in an active seismic zone and an area that frequently experiences floods and landslides. Activists garnered almost unanimous support in WNC and the state as a whole, and ultimately won their fight in May, only five months after the DOE initially announced their plans. A nuclear waste dump was eventually constructed in Yucca Mountain, Nevada, a site which probably had many of the same risks and problems associated with it but that did not garner mass opposition from Haywood residents (McKinney 2005).

Another environmental problem in Haywood County surfaced in the mid-1980s, although this time, it was more divisive among residents than the DOE debacle. As mentioned above, Champion was a pulp mill located in Canton that stimulated local economic growth, but which also attracted ire in Cocke County, Tennessee, due to its discharging of chemical waste-causing water pollution. Fish kills and evidence that suggested that Cocke County residents had higher than average rates of cancer, possibly due to dioxin

emissions from Champion, caused a movement against the mill to emerge when residents of WNC and East Tennessee formed the Dead Pigeon River Council (DPRC) in late 1986. Like anti-dump activists, the DPRC featured members from diverse backgrounds, but it had a more explicit focus on environmental justice. The DPRC urged the EPA to force Champion to clean up its act, which caused tensions within the Haywood community; many people financially relied on Champion and viewed the DPRC as a threat to their livelihoods. The examination Bartlett (1995) provides of responses to the Pigeon River controversy demonstrates that the nearly unanimous opposition to environmental destruction that was present in the anti-dump movement was largely abandoned by Haywood Countians when the local economy was threatened. It is easy to resist a dangerous waste site when it is imposed without consent upon one's community by the federal government; it is much more difficult to stand up to the largest provider of jobs in the area and demand justice. The EPA ultimately did order Champion to update its facilities, and the company was forced to pay affected residents of Cocke County $6.5 million in a class-action lawsuit (Varat 2006:467). In addition to its role as a symbol of the give-and-take of local industry, the Pigeon River is also infamous for another thing: floods.

Flooding in Haywood County

Prior to 1900, major floods were recorded in Haywood County in 1810, 1817, and 1840. In the second half of the nineteenth century, two particularly severe floods swept through Haywood County: the "June Freshet" of 1876, which caused extensive agricultural damage in the lowlands of the county, and the 1893 "Sam's Knob Flood," which destroyed businesses and trapped people in their homes (Beadle 2009:216). Although these floods

caused considerable economic damage to the fledgling county, no confirmed deaths are associated with them (Beadle 2009).

A series of relatively small floods occurred in 1901, 1902, and 1910, and caused property damage but no deaths. Information regarding these early floods is limited, so it is difficult to judge whether they were actually less serious in scale or if they only appeared so because of the county's small population and limited development. As the 20th century wore on, Haywood County began to see more devastating floods. The Great Flood of 1916 ravaged the larger WNC area but mostly spared Haywood, which actually benefited from the disaster because its intact rail line kept the region economically connected to the rest of the US; Haywood saw more commerce as a result (Beadle 2009). The county would not be so lucky in the floods of August 1940.

On the days of August 12 and 13, 1940, remnants of a hurricane caused "much of Haywood County [to receive] between 5 [and] 16 inches of rainfall," and the Pigeon River crested at 18 feet (Beadle 2009:217-218). This flood destroyed corn, tobacco, and potato crops, and also damaged equipment, pulp wood, and company housing at Champion. In all, Haywood County sustained $500,000 in damages. To make matters worse, the Pigeon River flooded again only a few weeks later, on August 29 and 30, due to heavy rain. The Pigeon crested at 20.75 feet, and its fury undid the recovery efforts that community members had initiated after the first flood; roads, bridges, and buildings that were beginning to be repaired were once again destroyed, resulting in an additional $500,000 in damages (Beadle 2009:219-219). In all, over 600 people were left homeless due to the August floods of 1940. In the following years, Champion would take some measures to prevent future flood-related property damage to their facilities, such as deepening the Pigeon River and constructing

dikes along the mill's property. These mitigation strategies helped Champion in future floods, but smaller businesses and individual homeowners continued to see considerable damage from regular flooding. Other notable 20th-century floods in Haywood County include those of 1957, 1959, 1964, and 1965 (Beadle 2009).

Since 2000, Haywood County has weathered two severe floods. The first occurred in 2004. On September 7, the remnants of Hurricane Frances swept through WNC. As it entered the region, it caused mudslides and flooding that washed out roads, destroyed crops, and inundated buildings (Barnes 2013). In Canton, the Pigeon River crested at 20.7 feet on September 8, flooding the downtown area (NWS 2022b). Less than two weeks later, the remnants of Hurricane Ivan brought an average of 6-10 inches of rain to areas in WNC, with some Haywood communities receiving far more, such as Cruso, which recorded 17 inches (Barnes 2013:267). The Pigeon River caused massive flooding in Canton and surrounding communities, this time cresting at 22.80 feet, the highest point ever recorded (NWS 2022b). Throughout all of NC, over "$44 million was issued to victims of Frances and Ivan" (Barnes 2013:269), and five people died in WNC, although no deaths were recorded in Haywood (Boyle 2014). This 2004 "double whammy" was strikingly similar to the 1940 floods; right as people were beginning to address the damage of the first flood, a second storm brought more flooding, leading to more property damage and stress for survivors. The Pigeon River has risen to the "action" stage of 10 feet several times since 2004, but it was not until August 2021 that it once again approached 2004 levels (NWS 2023).

TROPICAL STORM FRED

Tropical Storm Fred formed off the coast of Africa in late July and early August, 2021, made initial landfall on August 11 in the Dominican Republic, and traveled up the east coast of the US for six days before weakening into a tropical depression on August 17; by August 19, TSF had made its way through New York and had dissipated entirely. TSF caused heavy rain, landslides, and flooding in Haywood County, NC, on August 17. Throughout Haywood, rain totals varied, and amounts exceeding 12 inches were recorded at several sites. The East Fork of the Pigeon River crested near Cruso at a record height of 16.03 feet. The Pigeon River crested in Canton at 19.76 feet, the fourth highest crest ever recorded (Berg 2021). Throughout its life, TSF caused six direct deaths, all of them in Cruso (Berg 2021). Four men and two women died, ranging in age from 68 to 86 (WLOS 2022). In addition to the human toll, TSF also caused significant property damage; throughout the entire US, TSF caused $1.3 billion in damages, with $300 million coming from Cruso alone and Canton sustaining $12 to $15 million (Berg 2021; Dennis 2022). As of this writing, cleanup efforts are continuing. There are numerous media accounts of such efforts; for example, the Canton town government is still operating out of a temporary town hall while waiting for another to be built out of the flood zone, and debris pickup is still a major point of concern in Cruso (Vaillancourt 2022; Hyatt 2022). TSF was the major “natural disaster” event in Haywood County in recent decades, and residents are still feeling its effects over one year later.

AN OUTLINE OF THE PRESENT THESIS

In this thesis, I explore how TSF affected community members in Canton and Cruso. Between December 30, 2022, and January 25, 2023, I conducted 10 semi-structured

interviews with 12 affected individuals regarding TSF and its effects on them individually and on their broader communities. Their responses form the foundation of this thesis. With this work I will fill a gap in the Appalachian Studies literature, seeing as, to my knowledge, no long-form academic work has dealt with the social effects of flooding in Haywood County. More broadly, this thesis will contribute to the greater body of disaster studies literature and will be useful for scholars in Appalachia as well as those working in other regions. My thesis focuses on a hyper-local instance of community response to disaster; however, it has the potential for generalizability with regards to similar communities that face disaster often, both in Appalachia and in other parts of the country and world.

In this study I review the relevant literature and my research process, explain my results, and connect my findings to the larger picture of disaster in Appalachia and the United States. In Chapter 2, I present key findings from scholarship on disaster research, with a focus on flood studies; discuss news sources pertaining to TSF; and explain my methodology. In Chapter 3, I explore how respondents were individually affected by TSF, and in Chapter 4, I examine how the communities of Canton and Cruso were affected by TSF. I achieve this by organizing responses into emergent themes. In Chapter 3, I discuss respondents' post-flood emotions, long-term individual trauma, attitudes towards the FEMA response, attitudes towards other forms of government response, and concerns about future floods. In Chapter 4, I examine the relationship between the COVID-19 pandemic and TSF, the connections between climate change and TSF, post-flood community cohesion, post-flood community-initiated cleanup, and the role of TSF in collective memory. I conclude the thesis with Chapter 5, in which I summarize my main findings; reflect on the limitations of

my research; explain how TSF relates to the 2022 Eastern Kentucky floods; and offer avenues for future research, both for myself and for other researchers.

CHAPTER 2: LITERATURE REVIEW AND METHODOLOGY

INTRODUCTORY REMARKS

In this chapter, I move beyond discussing Haywood County and Tropical Storm Fred (TSF) and focus on establishing the academic context of my research. To do this, I begin by offering a review of literature that I found helpful when planning my project and analyzing my data. These sources in disaster studies span many disciplines, such as sociology, anthropology, biology, and planning, as well as Appalachian Studies. I have organized the literature review into the following sections: "Theory," "Methods," "Case Studies," and "Mitigation Strategies." After I summarize the literature, I provide a brief note on my newspaper and document archive on Tropical Storm Fred (TSF). Finally, I explain my methodology, regarding both the interview stage and the coding stage.

LITERATURE REVIEW

Theory

In this section, I summarize several sources pertaining to disaster studies theory and relate their findings to my thesis where applicable. I begin the section by considering core ideas, such as the definition of "disaster," as explained by Perry (2006). I then broaden my scope to explore other key theoretical concepts, such as Erikson's (1994) notion of "traumatized communities" and Button's (2010) theory of uncertainty. Next, I turn to Mileti (1999) to explain current trends in disaster response and potential avenues for more sustainable forms of mitigation, some of which are echoed by Boin and 't Hart (2006), who use "the crisis approach" to discuss disasters. I conclude this section by examining two

reviews of the field, the first by Tierney (2007), and the second by Arcaya, Raker, and Waters (2020); when taken together, these reviews show the progress that researchers have made in disaster studies as well as persisting gaps in the literature.

When diving into the field of disaster studies, it is first helpful to consider the defining characteristics of a disaster. Perry does just this in his *Handbook of Disaster Research* book chapter titled "What Is a Disaster?," in which he explains historical attempts to define disaster, beginning with Carr's 1932 definition and progressing to the present era, noting that different disciplines and audiences require different definitions. For sociological purposes, Perry emphasizes several "fundamental ideas" as to what makes a disaster, namely that they are "social phenomena" that "impact…individual coping patterns and the inputs and outputs of social systems" (2006:12). Additionally, disasters are "rooted in the social structure and [reflect] the processes of social change," which is how "we find vulnerability to the particular source" (Perry 2006:12). In other words, a disaster is not just a physical event but also the social upheaval that it leaves behind, both on smaller scales (individuals, families, communities) and larger scales (governments, social systems, societies). Perry (2006:13) also notes that "the magnitude of a disaster should be measured not in lives or property lost, but by the extent of the failure of the normative or cultural system."

Whereas Perry is primarily concerned with defining disaster, Erikson establishes that (1) disasters are changing in nature, and (2) cultural and historical contexts are vital when interpreting them. Erikson comes to these conclusions in his 1994 book, *A New Species of Trouble: Explorations in Disaster, Trauma, and Community*, in which he reflects on the various disasters he has studied over his career and puts them in conversation with each other. In the Prologue, he offers his thoughts on how events such as the Buffalo Creek Flood,

which I discuss further in the Case Studies section of this chapter, the Three Mile Island disaster, and the Yucca Mountain nuclear waste controversy represent a titular "new species of trouble," which are disasters that "are seen as having been produced by human hands,…involve some form of toxic contaminant, and…blur the line…between the acute and the chronic" (Erikson 1994:22). After presenting these case studies, Erikson (1994:230) expands on his opening thoughts in the Epilogue and presents a theory of "traumatized communities." In Erikson's (1994:229) view, to understand chronic disasters, one must also understand "a constellation of life experiences as well as…a discrete happening…a *persisting condition* as well as…an acute event;" in other words, to understand how a community responds to a disaster, one must consider the prior political, cultural, and historical contexts of the area.

Erikson's theory of "traumatized communities" can be read as a precursor to Gregory Button's conception of how post-disaster confusion is often produced by powerful institutions and fosters uncertainty and mistrust among the general public. In his seminal text *Disaster Culture: Knowledge and Uncertainty in the Wake of Human and Environmental Catastrophe* (2010), Button illustrates, through case studies including the Exxon-Valdez oil spill, Hurricane Katrina, the 2008 Tennessee Valley Authority (TVA) coal ash spill, and others, how uncertainty amid crises is produced and reproduced by government officials, corporate spokespeople, and scientists. This "production of uncertainty" is a "conscious tendency to manufacture, revise, or withhold knowledge" that "politicizes the discourse in the wake of disasters" (Button 2010:16). After arguing his case, Button concludes, "The control of information, or knowledge, in public discourse, as well as the attempt to control the social production of meaning, is an attempt to define reality. Therefore, it is a distinctly

ideological process" (2010:247-48). The goals of this process are for the powers that be to deflect blame, reject responsibility for the disaster, and avoid cleaning up or paying out to those affected. Button also issues a call to recognize that disasters are commonplace regularities rather than extraordinary rarities. As I explain in Chapters 3 and 4, uncertainty can even be fostered among people with relative power in communities, like local officials, if there is unclear information from those above them (e.g., at the federal level).

While Button is mostly concerned with explaining why disaster responses are sometimes muddled by those in power, Mileti, in the opening chapter of his 1999 book *Disasters by Design: A Reassessment of Natural Hazards in the United States*, proposes ways in which governments and organizations can adequately prepare for disasters before they happen. Mileti first introduces readers to foundational theories in disaster studies and proceeds to point out issues with these lines of thinking and potential changes that should be made. He notes that, despite advancements in disaster studies over the course of the 20th century, due to irresponsible economic development, disasters remain expensive and many mitigation strategies either postpone the inevitable or even degrade the environment and worsen future disasters. To address these issues, he proposes that emergency management agencies at all levels of government adopt a set of sustainability principles for hazards mitigation, which includes maintaining or enhancing environmental quality; maintaining or enhancing quality of life standards; increasing local resiliency and responsibility for disasters; strengthening sustainable local economies; increasing equity between and among generations; and fostering consensus building (Mileti 1999).

Chapter 7 of *Disasters by Design*, titled "Preparedness, Response, and Recover," is also relevant to the present thesis. Using a social construction of disaster framework, Mileti

synthesizes prior disaster research to highlight important themes in community response to disaster. Such themes include vulnerability to disaster (e.g., wealthy, white people are typically more prepared than other groups); varying levels of successful collaboration between levels of government after disaster; post-disaster social cohesion; post-disaster community transformations; and the imposition of post-disaster "limits on redevelopment" and land use (Mileti 1999:238). Although this list provides only a sampling of the topics Mileti discusses, these themes are the most relevant to the present thesis.

Similar to Mileti's book chapter on disaster response is Boin and 't Hart's 2006 book chapter, "The Crisis Approach." In this contribution to *Handbook of Disaster Research*, the authors differentiate between a "crisis" and a "disaster," explaining that while a crisis involves a *threat* of disruption or destruction to a community's normal functioning, a disaster is an *actual* disruption or destruction; a disaster always follows a crisis, but a crisis does not necessarily result in a disaster. Boin and 't Hart also list and analyze the various challenges of crisis management, which are often difficulties in disaster response, as well. Of particular use to the present thesis is their explanation of "the battle of the Samaritans," which they describe as instances in which "agencies representing different technologies of crisis coping find it difficult to align their actions" (Boin and 't Hart 2006:50). As I explain in Chapter 4, although some respondents reported positive interactions between different organizations in the aftermath of TSF, there were some situations in which differing goals or communication breakdown led to conflict.

In the sources above, researchers were predominantly focused on explaining patterns in disaster response and, to a lesser extent, formulating conceptual frameworks with which such responses can be interpreted. Leading disaster researcher Kathleen Tierney, in her 2007

article “From the Margins to the Mainstream? Disaster Research at the Crossroads,” reviews such prior literature and offers new directions for the field of disaster studies. Tierney traces the history of disaster sociology, explains key theoretical frameworks researchers employ when analyzing disasters, offers critiques of the current body of disaster research, and calls for future research to integrate with other subfields of sociology and to consider how disasters affect phenomena like “social inequality, diversity, and social change” (2007:503). Several of her points are of use to the present thesis, such as her argument that presidential disaster declarations are political in nature and “do not parallel directly the severity of disasters during a given period” (Tierney 2007:507), the emphasis on property damage in disaster assessments, the role of “unsustainable development practices” in making places more vulnerable to disaster (Tierney 2007:510), and the growing realization among researchers that post-disaster community cohesion is not universal.

Thirteen years after Tierney’s call to action, Arcaya, Raker, and Waters (2020) provide an update to Tierney’s review and elaborate on how the field has changed and what needed improvements remain. In their 2020 article titled “The Social Consequences of Disaster: Individual and Community Change,” the authors identify three areas of focus for sociologists and others studying disaster: the difference between studies that focus on individual-level and community-level post-disaster recovery, the role and conceptualization of time in disaster studies, and the impact responses to disasters have on future events. Several of their findings are of particular use to the present thesis, specifically that disasters can be “social process…not simply environmental or natural events” (Arcaya et al. 2020:673); the importance of prior historical and cultural contexts to analyzing disasters; the longevity of post-disaster trauma; the need for more longitudinal studies of disasters; the

difference between short-term (less than one year) and long-term (over one year) effects; the tendency of elected officials to allocate more funds towards post-disaster relief than mitigation in order to win political clout; and the inequalities that arise/worsen from basing damage payouts on property values.

Methods

In this section, I summarize sources that have been helpful to me when considering *how* to study TSF. I begin the section with Drabek's (2002) discussion of the various qualitative and quantitative methods he has used throughout his long career studying disasters, and his call to invent new methods when necessary. I then turn to Phillips's (2002) book chapter, in which she explains the pros and cons of qualitative methods when applied to disaster studies, and qualitative matters that ought to be addressed by future researchers. I end this section by discussing the mixed methods approach of Holguín-Veras et al. in their 2014 study on material convergence in disasters, which provides an example of the utility of quantitative analysis at a macro level.

Drabek's 2002 book chapter in *Methods of Disaster Research*, "Following Some Dreams: Recognizing Opportunities, Posing Interesting Questions, and Implementing Alternative Methods," offers insights regarding the many methods appropriate for studying disaster and important areas for future research. Drabek reflects on his long career as a disaster studies researcher by detailing the types of methods he has utilized in his work, such as surveys, interviews, and lab tests, among others. He also lists the pros and cons of various methodologies and urges disaster researchers to invent novel methods if the research topic they are pursuing is not well-suited to pre-existing ones. In addition to these reflections,

Drabek also offers his thoughts on important topics for future research. Of particular use to the present thesis is his call for researchers to revisit "old 'truths' about disaster myths such as looting," noting that just because the phenomenon is reported in certain cases, researchers are not justified in generalizing its occurrence "elsewhere in an uncritical way" (Drabek 2002:145). In the case of TSF, for example, several respondents did reference reports of theft in their communities, however, Drabek would argue that its occurrence in Haywood County is independent from the occurrence or absence of theft in other areas post-disaster.

Drabek utilized a variety of methods throughout his career, both qualitative and quantitative. In her *Methods of Disaster Research* book chapter "Qualitative Methods and Disaster Research," Brenda Phillips (2002) focuses on qualitative methods specifically and explains the importance of strategies such as interviews and participant observation in studying disasters. She argues that although, at the time at which she writes, there is a general preference in both the academy and applied fields for quantitative methods, qualitative methods can reveal "thick" (Phillips 2002:204) contexts that are not easily discernible from statistics alone. In the present thesis, I aim to address Phillips's call for more qualitative case studies of individual disasters by analyzing transcripts of semi-structured interviews. Thinking towards the future, Phillips's critiques that "disaster researchers use the one-time case study far too frequently" and "longitudinal qualitative research would fit well methodologically with needed substantive recovery studies" (2002:207) speak to my long-term objectives of continuing to examine TSF and Haywood County beyond my current work, as I discuss further in Chapter 5.

The present thesis does not utilize quantitative methods. However, Holguín-Veras et al., in their 2014 article "Material Convergence: Important and Understudied Disaster

Phenomenon," display the utility of using both quantitative and qualitative methods to approach disaster studies, particularly for researchers looking at a more macro level. The authors rely on instances throughout history and their own fieldwork to argue that "material convergence," which is "the flow of supplies, general donations…and equipment that travels to the site of [a] disaster" (Holguín-Veras et al. 2014:2), is an overlooked aspect of disaster studies, but one that has major implications for individuals and organizations providing post-disaster aid. They explain that supplies sent to disaster areas can be high-priority, low-priority, or no priority; according to their calculations, on average, fifty to 70% of supplies sent to a given disaster are no priority (2014:9). The authors argue that this influx of useless items is not only annoying but also potentially dangerous, as can be seen in instances of disaster victims receiving expired medicine or food. The authors also reference a lack of space to put donations, which is a topic one of my respondents mentioned in her interview that I discuss in Chapter 4. Although the topic of material donations is not a major theme I discuss in the present thesis, based on Holguín-Veras et al.'s work and references to the topic in my interviews, it is a viable area of future study.

Case Studies

Case studies focusing on individual disasters are a mainstay of the disaster studies literature. In this section, I discuss four case studies that have been particularly useful to my thinking about TSF. First, I summarize Erikson's 1976 book *Everything in Its Path: Destruction of Community in the Buffalo Creek Flood*, with a particular focus on his discussion of individual and collective trauma. Then, I turn my attention to a more modern example of disaster in Appalachia by discussing Lassiter, Hoey, and Campbell's 2020 edited

volume *I'm Afraid of That Water: A Collaborative Ethnography of a West Virginia Water Crisis*, which contains valuable information on "slow-motion" disasters. Next, I turn my attention away from Appalachia and towards the Gulf of Mexico by examining Freudenburg et al.'s 2009 book *Catastrophe in the Making: The Engineering of Katrina and the Disasters of Tomorrow*, in which the authors argue that even "natural" disasters have human causes. Finally, I look at another devastating storm through the lens of Checker's 2020 book *The Sustainability Myth: Environmental Gentrification and the Politics of Justice*, zeroing in on her discussion of the Stop FEMA Now movement that emerged after Hurricane Sandy swept through New England.

I first encountered Kai T. Erikson's 1976 book, *Everything in Its Path: Destruction of Community in the Buffalo Creek Flood*, in early 2022. Despite some of its flaws, such as Erikson's reliance on Appalachian stereotypes to describe his participants,[1] the book provides a valuable framework for thinking about communities impacted by disaster. Erikson examines the social effects of a catastrophic dam burst on communities along Buffalo Creek in Logan County, West Virginia, in 1972. Operated by Buffalo Mining Company, itself owned by Pittston Coal, the dam was erected to form an impoundment for coal waste. After several days of rain, the dam failed, causing 132 million gallons of water mixed with coal sludge to surge down the valley. In all, 125 people died due to the flood. Erikson was brought to the area to interview people for a lawsuit against Pittston. Based on the testimonies of survivors, he argues that the flood led to both individual trauma and collective trauma. Erikson describes five facets of individual trauma: numbness, close encounters with death, survivor's guilt, loss of property, and a belief that things would inevitably go wrong in the

[1] Later in his career, Erikson acknowledged that this aspect of his work was unfounded. See Erikson (1994) for more information.

future. Erikson ends his discussion of individual trauma by claiming that either the 93% of respondents who had symptoms of mental health disorders had those problems before the flood, or there was a second trauma that caused these problems to be chronic. He claims that the latter was true, and that people in Buffalo Creek did not "get over" their trauma due to the loss of community. He then introduces five aspects of collective trauma: a loss of personal morale and communal moral standards, a sense of disorientation, a loss of connection to other people, expressing pain through physical ailments, and a loss of security. Although I do not use Erikson's specific themes, in this thesis, I emulate his general process by coding interview responses into ten themes, five of which are "individual effects" and five that describe "community effects." I discuss my methods in more depth later in this chapter.

Forty-four years after Erikson described a coal-caused disaster in *Everything in Its Path*, researchers in West Virginia published their findings of a different but similar event. In the edited volume *I'm Afraid of That Water: A Collaborative Ethnography of a West Virginia Water Crisis* (Lassiter, Hoey, and Campbell 2020), contributors trace the history of the 2014 Elk River Spill. In the spill, the water of over 300,000 Charleston, WV, residents was contaminated when a Freedom Industries storage tank for the coal-washing chemical MCHM leaked upstream from the local water treatment plant. In addition to presenting oral histories of those affected by the spill, the book also details the process of "doing" collaborative ethnography, in which academics work with community members for the entire research process rather than just data collection, and also offers two chapters of disaster studies theory, written by Brian Hoey. Hoey (2020:55) describes the spill as a "slow-motion disaster," which are "events that unfold relatively slowly…that can be catastrophic for both individuals and communities on an order of magnitude typically associated with such fast-

acting disasters as hurricanes." He goes on to explain that socioeconomic crises, such as "deindustrialization, depopulation through outmigration, and…racial discrimination" can set the stage for slow-motion environmental disasters, as seen in the water contamination of Flint, Michigan (Hoey 2020:55).

In *Catastrophe in the Making: The Engineering of Katrina and the Disasters of Tomorrow* (2009), Freudenburg et al. also discuss the role governments and corporations play in disasters. In the book, the authors trace a history of development leading up to Hurricane Katrina in order to argue that some disaster mitigation projects, such as levees and floodwalls, can exacerbate rather than alleviate flooding. Additionally, some projects that are intended to improve local economic conditions, such as the Mississippi River Gulf Outlet,[2] can worsen floods, either directly or indirectly. Such projects are often intended to fuel the so-called "Growth Machine" rather than bring genuine economic prosperity to municipalities. According to authors, the Growth Machine refers to the idea that the local elite in any given city become so preoccupied with economic development and growth that they prioritize expansion over sustainability (Freudenburg et al. 2009). The authors go on to explain that development comes in the form of "external resources" that proponents "believe will enhance their cities' economic prospects," which fosters an "institutional linkage between the private sector…and the federal government" (Freudenburg et al. 2009:57, 74). Overall, the authors argue that "instead of hurricane protection, the political system consistently 'invested' taxpayers' money in projects that regional politicians saw as offering

[2] The Mississippi River Gulf Outlet, or MRGO, was an industrial canal that cut a diagonal path across southern Louisiana to connect the Mississippi River more directly to the Gulf of Mexico. It contributed to the severity of Hurricane Katrina both indirectly, due to the destruction of wetlands that preceded its construction, and directly, because it caused floodwaters to disproportionately concentrate in New Orleans. Due to its role in the disaster, the MRGO was closed in 2009; although it is no longer used for industry, it remains a permanent part of the landscape (Freudenburg et al. 2009).

more immediate payoffs to the broader economy" (Freudenburg et al. 2009:138). When put into conversation with Freudenburg et al., Hoey's concept of "slow-motion disasters" can be interpreted as a result of the Growth Machine; decisions made with the intention of bolstering the economy can come at the expense of human and environmental health and can come to a head in sudden bursts (e.g., a chemical leak into the water supply) and over time (e.g., long-term lead contamination from pipes).

Hurricane Katrina is often invoked in discussions of how human activities make certain areas more vulnerable to "natural" disasters, but there are other, more recent storms that also provide examples of this phenomenon. In her 2020 book *The Sustainability Myth*, anthropologist Melissa Checker examines environmental injustice in Staten Island, New York. Most of the book deals with what Checker terms "environmental gentrification," a process in which projects aimed at addressing "sustainability" disproportionately benefit the wealthy and displace low-income people; for example, Checker begins the book by describing efforts by New York City Mayor Michael Bloomberg and his city administration to build a "New York Wheel" in Staten Island following Hurricane Sandy. While Bloomberg and developers claimed that the wheel would mitigate future flooding and bring economic growth to the area, residents, many of them people of color, argued that constructing the wheel in the floodplain would simply divert flood waters to their homes and businesses. Checker also includes a chapter on environmental activism on Staten Island following Hurricane Sandy. With a particular focus on the Stop FEMA Now movement, which was "a grassroots effort to repeal the Biggert-Waters Act" (Checker 2020:191), she argues that, despite partisan division in the area, locals of many political persuasions formed a broad coalition following Sandy. While spats did sometimes arise between activists of different

political backgrounds, Checker (2020:198) emphasizes that their "lived experiences" allowed them "to set aside partisanship and cooperate on immediate, urgent issues." As I explained in Chapter 1, many Haywood County voters are registered Republicans. However, the example Checker provides of cross-party coalition building, in conjunction with past activism in the county and current anger over climate inaction, which I discuss in Chapter 4, suggests that post-flood climate activism is not out of the question in Haywood County.

In addition to the case studies mentioned here, there are also a number of examples of Appalachian disasters and toxic contamination that have received scholarly attention. For example, a 2000 coal slurry spill of an impoundment owned by Massey Energy in Martin County, Kentucky, has been the subject of academic publications (McSpirit et al. 2012; Scott, Westgate, and McSpirit 2016), as have the improper treatment of radioactive materials by David Witherspoon, Inc., in and around Knoxville, Tennessee (Nolt 2011), and the 2008 Tennessee Valley Authority coal ash spill in Roane County, Tennessee (Button 2010). These events, as well as the Buffalo Creek Flood and the Elk River Spill mentioned above, represent only a small fraction of Appalachian disasters. While tracing a comprehensive history of Appalachian disasters is beyond the scope of this study, the frequent occurrence of disasters in the region, both those related to coal and not, supports the need for my investigation of TSF.

Mitigation Strategies

Much of the disaster studies literature focuses on mitigation strategies to make communities less vulnerable to disaster. Additionally, several of my respondents discussed mitigation strategies their organizations are hoping or planning to implement post-TSF. In

this section, I summarize several sources that deal with flood mitigation. I begin by summarizing key findings from Oli Brown's 2008 United Nations (UN) report *Migration and Climate Change*, in which he examines the causes and effects of climate migration and the need for policy on the subject. Next, I summarize a 2021 paper by Duijndam et al., also on SLR and human migration. In order to provide a real-world example of climate migration in the US, I then turn my attention to Alexandra Tempus's 2022 article on community relocation in the context of the Driftless Area of Wisconsin. Finally, I conclude by summarizing other mitigation strategies by Hunt in her 2004 book *Thirsty Planet: Strategies for Sustainable Water Management*.

Although TSF provides a hyper-local instance of a community affected by climate-driven flooding, the phenomenon is global in scale, as Oli Brown shows in his 2008 UN report *Migration and Climate Change*, an early work on the potential causes and effects of climate change-driven human migration. In the report, Brown explains that migration is driven by both climate processes, which occur over time, as well as sudden climate events that cause immediate disruption and non-climate factors, like government policy. Brown also explains that climate events only become disasters if the communities and individuals in their paths are inadequately prepared to withstand them. Brown suggests several methods to make communities more resilient to climate events, such as large-scale risk reduction, disaster education, and fast emergency response, all of which require large financial investments. Several of my interviewees mentioned that risk reduction projects similar to those Brown mentions are in the works for Haywood County. He concludes his report by urging governments to adopt policies that address the causes of climate processes, not just the symptoms of climate events; this sentiment is echoed by several respondents in Chapter 4.

Duijndam et al. provide more information regarding trends in sea-level rise (SLR) caused climate migration in their 2021 paper "Anticipating Sea-Level Rise and Human Migration: A Review of Empirical Evidence and Avenues for Future Research." These authors argue that SLR does not necessarily lead to migration; in reality, migration depends on many factors, like location, class, place attachment, etc. There are different types of policy change aimed at mitigating the effects of SLR, such as protection (where an area is shielded from its effects) and accommodation (where localities are redesigned to adapt to its effects). These solutions are often costly, so people must sometimes retreat away from coasts or floodplains. Retreat can be managed (i.e., planned and executed by the government) or unmanaged (i.e., the product of individual decisions to leave). In general, migration decisions are a result of both structural forces and individual agency. Duijndam et al. also found that homeowners and people with strong place attachment are less likely to migrate.

The above review articles are comprehensive and useful for disaster researchers concerned with climate migration. However, they tend to focus on coastal communities rather than inland river communities, like those that are the subject of this thesis. In her 2022 article "Finding Higher Ground: A Road Trip Through the Unlikely Cradle of America's Great Climate Migration," journalist Alexandra Tempus provides examples of communities similar to those in Haywood County. Tempus focuses her article on communities that have relocated due to severe, repeated flooding in the Driftless Area of Wisconsin, which has a similar topography to Appalachia. In the Driftless Area, many communities were built along rivers in valleys that are now seeing more frequent and intense flooding due to climate change. The people Tempus interviews in the article generally believe that community-level relocation is the most effective flood mitigation solution, in comparison to protection or

adaptation, although they acknowledge that it is not popular with many community members, especially those with strong place attachment. This conflict highlights a challenge of the relocation strategy–community consensus. Tempus also notes that the relocation process in the US is piecemeal and involves navigating many different organizations, and that communities must compete for grant money. Tempus's reporting provides a preview of challenges that communities in Haywood may face if they ever decide to relocate.

The above sources are focused on climate migration. However, this is not the only strategy of response to floods, as Constance Hunt details in her 2004 book *Thirsty Planet: Strategies for Sustainable Water Management*. Hunt explains the science of flooding, factors that exacerbate flooding, and strategies to adapt and respond to flooding. Hunt points out that many technological measures meant to mitigate the effects of floods, such as constructing levees and dams, may end up making them worse. She also notes that people lack an understanding of flood-related statistics, such as the concept of a "100-year flood," which may give them a false sense of security and lead them to remain in a dangerous floodplain. I return to this point in Chapter 3. Hunt argues that future efforts at flood response should seek to minimally alter the landscape within the watershed while maximally altering human behavior, and that governments must treat the causes rather than the symptoms of flooding.

TSF NEWSPAPER AND DOCUMENT ARCHIVE

Shortly after TSF occurred, I began to compile an archive of all media coverage related to TSF's effects on WNC. Due to the recent nature of TSF at that time, the majority of my initial sources were newspaper articles pertaining to the event. Since then, I have regularly updated my source list. I have accomplished this by periodically checking a Google Alert for

the search term "Tropical Storm Fred," searching the newspaper database NexisUni for articles the Google Alert might have missed or filtered out, and regularly checking local outlets for new stories, namely *Asheville Citizen-Times*, *The Mountaineer*, and WLOS, a local news station out of Asheville, NC. Although the bulk of my articles are from the earlier post-flood period, I continue to add a few new articles to the list each month, especially from *The Mountaineer* and WLOS.

Currently, the list contains 193 unique news articles pertaining to TSF. In most of the articles, TSF is the main subject, although the list also includes some articles where TSF is only one topic covered in an article (e.g., "Pisgah High Stadium Update: Football Team Will Play All Road Games in 2022"). I have also collected 13 government documents pertaining to TSF. There are numerous purposes for which I could use the archive, as I detail more in Chapter 5. For the present thesis, I use information from the archive to corroborate information I obtained in interviews.

METHODOLOGY

For this thesis, I conducted ten interviews with 12 individuals who were affected by TSF, involved in disaster management following TSF, or both. Utilizing a snowball sampling method, I began this process first by asking two individuals I already knew in the community to provide names and contact information for individuals who might be interested in talking with me. They provided me with contact information for seven individuals or small groups. I also contacted a local journalist who has covered TSF from its initial occurrence to the present, who gave me information on six other potential interviewees or groups of interviewees. Thus, 13 contacts from my potential pool came from these sources. I also

received suggestions for three unique individuals from respondents themselves.[3] Additionally, I identified two potential interviewees through media related to TSF.[4] Thus, there was the potential for 18 interviews.[5] I made 14 contacts before I was able to schedule my target number of interviews (ten). I used several methods to contact individuals, including phone calls, texts, and email. In some cases, I did not receive a response and decided to follow up using another contact method; in some cases, this additional message yielded a response, and in others, it did not. I did not contact an individual or group more than two times when soliciting interviews. I also had to contact individuals using different phone numbers (publicly listed online vs. privately listed) on a few occasions. Of the 14 contacts I made, three did not respond, one couple agreed to an interview but had to cancel due to extenuating circumstances, and ten contacts responded and agreed to be interviewed. I did not reach out to the remaining four contacts because I did not want to schedule more interviews than was feasible for me to conduct, transcribe, and code. A summary of interviews is presented in Table 1.

[3] I received more suggestions for other respondents, however, many of them were a) people I had already contacted/interviewed, or b) people already suggested by my community contacts, my journalist contact, or other respondents.
[4] These individuals were in public leadership positions, so I was able to independently obtain contact information for them through the internet.
[5] Some of the recommendations I received were for couples or small groups. Considering that, the potential interview pool was 23 people: 14 individuals, three couples, and one group of three.

Table 1. Interview Log.

Name(s)	Date	Duration	Location
Heath	12/30/2022	46:28:00	In person
Spencer and Justin	1/3/2023	1:02:30	In person
Earl and Susan	1/4/2023	2:53:36	In person
Jack	1/11/2023	1:09:57	In person
Jill	1/18/2023	38:50:00	Phone
Pete	1/19/2023	43:39:00	Phone
Ben	1/19/2023	44:49:00	Phone
Neal	1/20/2023	59:20:00	Phone
Paul	1/24/2023	32:11:00	Phone
Emily	1/25/2023	50:13:00	Phone

I interviewed respondents between December 30, 2022, and January 25, 2023. Four interviews took place in-person at various locations selected by respondents. The remaining six interviews took place over the phone. I recorded all interviews with a digital recorder. Prior to the interviews, I provided respondents with a consent form to review; in instances in which the interview took place on the phone, I sent respondents a digital copy of the form. The Appalachian State University Institutional Review Board gave me permission to obtain verbal rather than written consent for the interviews due to the sensitive nature of several question topics, such as Federal Emergency Management Agency (FEMA) aid applications. Therefore, before each interview, I asked respondents if they had any questions, answered any that arose, and obtained verbal consent before I began recording. The interview script

included questions pertaining to respondents' personal information; prior experience with floods; experience with TSF; property damage, FEMA assistance, and other forms of aid; individual effects of TSF; and community effects of TSF.[6] I also asked participants follow-up questions that I formulated during each interview based on their unique responses and personal backgrounds.

The interviews ranged in length from approximately 30 minutes to nearly three hours. The average interview time was approximately one hour. In all, 12 individuals participated: eight interviews were with individuals and two were with duos, one being a set of brothers, the other, a married couple. Demographically, the interviewees included three women and nine men. They ranged in age from 19 to 74; three people declined to provide their age. The average age of the nine respondents who did provide that information was 44.2 years. I did not ask respondents for racial/ethnic information. All of the respondents had some tie to Haywood County: eight lived there permanently, one couple owned a cabin there but lived at a permanent residence in Buncombe County, one individual worked in Haywood but lived in Buncombe, and one individual lived permanently in Forsyth County but functionally moved to Haywood in 2021 to work on recovery efforts. There were other pieces of demographic information, such as socioeconomic status and religious affiliation, which I did not formally ask about but which, in some cases, naturally came up in conversation.

After I finished interviewing respondents, I began the transcription process. To begin with, I loaded my audio files into One AI's Language Studio which, using the Whisper engine, automatically generates speech-to-text transcripts. After I had my transcripts, I listened to each audio file and manually corrected discrepancies. During this process, I kept

[6] See Appendix A for a full interview script.

all filler words; some of the text excerpts included in the remainder of the thesis have been lightly edited to remove such filler for ease of reading. I have noted with brackets any alterations I made to the original remarks. Additionally, I have assigned pseudonyms to each respondent and removed or altered any identifying or potentially identifying information to the best of my ability, while still preserving the original character of the responses. In sum, the interviews generated approximately 156 pages of transcribed interviews to work with.

Following the transcription process, I turned my attention to coding for emergent themes in the data. Following Erikson (1976), I had two overarching categories of themes: individual impacts and community impacts. Under the individual impact umbrella are post-flood emotions, long-term individual trauma, attitudes towards the FEMA response, attitudes towards the larger government response, and concerns about future floods. The community impact themes are the relationship between COVID-19 and TSF, the perceived relationship between climate change and TSF, post-flood community cohesion, community-initiated cleanup, and the place of TSF in collective memory. In Chapters 3 and 4, I offer more explanation of how I operationalized each theme. I also present quotations from respondents which I feel represent the theme particularly well, as well as an analysis of how the included quotations relate to the literature.

My methodology is not without its limitations. Snowball sampling was successful in the sense that I was able to recruit participants in a short time frame, but it yielded a non-representative sample. I did not collect racial or ethnic information for respondents, but had I, I believe that the sample would be predominantly white and non-Hispanic. Additionally, most of my respondents were men. These factors are limitations because, as established in the literature (Mileti 1999), disasters affect women and people of color in unique ways. I also

intended to interview more lay people; four of my respondents were local government workers at the time TSF occurred, and three others held non-governmental leadership positions in their respective community. I do not believe that the inclusion of these seven individuals is a limitation per say, but I do think that there would be value in examining how lay people experienced TSF in comparison to local leaders. Additionally, while I chose to conduct ten interviews due to time constraints and my individual capacity as a novice researcher who was also working and taking classes, there is no question that a larger sample size would both reinforce and challenge the themes I discuss in this thesis, and lead to the emergence of new themes. Ultimately, my sample did not represent the larger Haywood County population, yet I believe future research has the potential to do so.

CHAPTER 3: INDIVIDUAL EFFECTS

INTRODUCTORY REMARKS

In this chapter, I discuss five major themes that emerged during interviews regarding Tropical Storm Fred (TSF) and my subsequent analysis of the transcripts. These themes reflect how respondents believe TSF affected them on an individual level (in Chapter 4, I discuss community-level effects). The five themes I cover in this chapter are post-flood emotions; long-term individual trauma; attitudes towards the Federal Emergency Management Agency (FEMA) response; attitudes towards government responses; and concerns about the future. For each theme, I provide a brief explanation of what the theme means and why I selected it, followed by quotations from respondents and an analysis/contextualization of those quotations. I end the chapter by offering a brief set of concluding remarks about what this collection of responses says about the individual effects of TSF on Haywood County residents.

POST-FLOOD EMOTIONS

"Everything was just so much up in the air, so much confusion. And…it was a roller coaster, at times it would speed up and it was chasing me and other times it would slow down."

According to respondents, and corroborated by the media contained in my newspaper archive, floodwaters began to recede the night of August 17, 2021 (Perrotti 2021; Johnson 2021). Once the Pigeon River returned to its banks and flash flooding was no longer an immediate concern, Haywood Countians were left to survey the damage TSF caused and begin picking up the pieces of their lives. By "post-flood emotions," I mean the emotions and reactions respondents had in the days and weeks following TSF. In general, they were

feelings of shock, uncertainty, and sadness, all common responses described throughout the literature (Erikson 1976; Button 2010). The specificities of these post-flood emotions is the topic of this section.

Throughout my interviews, when respondents discussed the floods Haywood endured in 2004, they often remarked that that flood was a slow, gradual event. In contrast, TSF led to surprising flash floods that caught people off guard. Thus, the destruction left behind by TSF came as a shock to many people, particularly those in Cruso. As Jill, the president of a local community center and partial owner of Campground A,[7] explains, after the waters recede:

> I think you're in shock. I remember going down to the bottom of the driveway. And I mean, it looked like, I don't know what it looked like…there was nothing recognizable…I just can't get my bearings because…nothing looked right. (Personal interview, January 18, 2023)

TSF caused not only property damage but also drastic changes in the physical landscape, as the newspaper archive reveals (Igelman 2022); thus, it is no surprise that, after emerging from their places of refuge, residents like Jill found their community unrecognizable. This shock was also felt by outsiders responding to the disaster. As Paul, a volunteer who came to Cruso with a disaster relief organization, says:

> Yeah, the biggest, biggest, biggest thing I remember is how this little creek…how much dirt was moved, how many houses was gone. It opened up something that was 15 foot, made it look like 80 to 100 foot. I mean, it just blew it up. (Personal interview, January 24, 2023)

Although his group arrived after the floodwaters had started to recede and he was not as familiar with the community as residents, Paul was still surprised at the physical impact the "little creek" had wrought on Cruso. Thus, whether the shock came from long-time residents or newly arrived helpers, the physical damage the Pigeon River inflicted on Cruso was surprising.

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[7] Several campgrounds were affected by TSF. Respondents mentioned two by name. I refer to them as Campground A and Campground B, with Campground A being the predominant campground referenced by respondents.

When shock occurs, uncertainty often follows. As Button (2010) establishes, uncertainty following disasters is common and is often exacerbated by an inadequate and/or unorganized official response. For Neal, a retired professor and current public official in Canton, uncertainty was primarily tied to being displaced from his home: "So everything was just so much up in the air, so much confusion. And…it was a roller coaster, at times it would speed up and it was chasing me and other times it would slow down" (Personal interview, January 20, 2023). Neal explains that, in the aftermath of TSF, it was difficult to juggle homelessness, his duties as a member of local government, and conversations with FEMA/insurance agents. He does not directly attribute his "confusion" to an inadequate response by any particular organization; in contrast, he praises FEMA's response to TSF throughout the interview. His responses suggest that even individuals who do not face barriers to receiving aid from specific organizations still face general uncertainty after a disaster. Heath, also a public official in Canton, similarly expressed uncertainty following TSF:

> My town's underwater. I have feelings that 60 are dead…You got people coming up to you and you don't have answers to them. You don't know where their loved ones are. You don't know what the future holds tomorrow. (Personal interview, December 30, 2022)

This response is interesting for several reasons. Heath's comment about having "feelings that 60 are dead" indicates how the failures of cellphone tower infrastructure in Cruso led to an inflated death estimate.[8] I did not probe Heath on this point, but it begs the question of how that uncertain estimate might have affected resource allocation in the immediate aftermath of TSF. In a more general sense, it shows that even those in positions of relative power in the

[8] Although Cruso is not under the official jurisdiction of Canton, it shares the same zip code. Despite technically being different communities in many ways, such as legally and relationally, there is a lot of overlap between the two. For example, children from Cruso attend school in Canton, and many Cruso residents work in Canton or other larger towns in Haywood County. This close relationship might explain why Heath was concerned about death tolls in Cruso.

community can experience feelings of post-disaster uncertainty; Neal's feelings of uncertainty reinforce this conclusion. When taken together, the post-flood emotions expressed by Neal and Heath exemplify Button's (2010:11) argument that "informational uncertainty can create individual and community-wide stress," even among local leaders.

After the initial shock of seeing the changes the Pigeon River inflicted on their communities, and feeling the uncertainty of how to move forward, respondents began to experience melancholy emotions. For Ben, a social media manager for a brewery in Canton, this sorrow was tied to the hard work and memories that were lost due to the damage to his family's business:

> It was honestly very…heartbreaking…especially just watching a lot of the…work and the years that…my family had put into that business, just to see it…wash down the river. It was…really tough. And I could tell it was tough on my…family too, because there was a lot of sentimental parts of it.…there was…some personal family…memories that got destroyed. (Personal interview, January 19, 2023)

Ben's family was ultimately able to make the necessary repairs to the brewery and later reopen their business, but the "personal family memories" lost to the flood are irreplaceable. In this case, Ben connects post-flood sadness to the damage wrought on a specific place that was important to him and his family. Although some physical items cannot be replaced, the owners of the brewery were able to repair the physical structure, which perhaps softened this sadness in Ben over time. The same cannot be said for those who lost loved ones, or whose entire home washed away. Jack, a pastor in Cruso, did not lose any family members to TSF, but several of the victims did attend his church. With regards to his post-flood emotions, he said:

> We say it all the time, it's so cliché…you don't know when somebody's last day is going to be. But I could have went and spent some time with them [two victims] that day [August 14]. And instead…next phone call I get about them was they washed away in a flood. So that…had a bigger impact. (Personal interview, January 11, 2023)

Here, Jack expresses regret over not visiting with his congregants when he had the chance. When taken together, Ben and Jack's post-flood emotions demonstrate that after disaster victims process the initial feeling of shock, and begin to grapple with the uncertainty of how to clean up, melancholy feelings like sadness and regret begin to surface over what was lost. Perhaps a more in-depth study on Haywood County with a larger percentage of the population would reveal more nuances in feelings of post-flood sadness.

In sum, the post-flood emotions of shock, uncertainty, and sadness respondents reported feeling in the days after TSF both align with the literature and, in some instances, raise points for future inquiry. While some respondents reported feeling "back to normal" at the time of the interviews, others explained that negative emotions lingered, or even still affect them to this day. This long-term sense of individual trauma is explored in the next section.

LONG-TERM INDIVIDUAL TRAUMA

"I never thought I'd be that person that felt like that."

In the previous section, I presented quotations from respondents concerning their short-term emotions in the immediate aftermath of TSF. In this section, I present quotations that illustrate the emotions respondents reported having months after the fact and up to the time of the interview period, which was approximately 17 months after TSF. In the disaster studies literature, there are different, and sometimes conflicting, definitions of the term "trauma." Additionally, there are psychological definitions of the term; for example, the Diagnostic and Statistical Manual of Mental Disorders, the authoritative source for the diagnosis of psychiatric phenomena, contains an entire chapter on "trauma- and stressor-

related disorders" (APA 2013:265) and lists eight criteria in their description of post-traumatic stress disorder (APA 2013:271-280). As I am not a psychiatrist, my use of the term "trauma" in this section is not meant to imply a diagnostic assessment, but rather reflect the reported emotions of respondents; in other words, the respondents in this section, whether in the quotations I discuss or elsewhere in their interviews, by and large named their emotions with the term "trauma." For those that did not use the term, I include them in this section because their responses indicate similar long-term negative emotions related to TSF.

It would be inaccurate to claim that all those who experienced TSF had long-term trauma; however, several of the respondents I talked to *did* report those experiences. This continual anguish is to be expected, per the literature (Erikson 1976; 1994). Additionally, although many respondents did bring up the trauma response in their interviews, they discussed it in several unique ways. In this section, I examine unexpected trauma, persistent trauma, and the tendency of some respondents to feel that they are not entitled to feeling traumatized.[9]

For some respondents, TSF caused feelings of long-lasting trauma that caught them off guard. As Jill explains:

> I didn't think I would be the person that would have…kind of that post-traumatic stress thing, and I just remember walking to [Campground A] the first time after a little rain and we had some more water coming and thinking, oh, my God, what if there's a wall of water[10]

[9] One trend I found in responses was the theme of community trauma, which Erikson (1976), referring to "communal trauma," discusses at length. Since this chapter focuses specifically on the individual effects of TSF, I will not explain community trauma here. However, in Chapter 4, I discuss the flood in collective memory, which concerns community trauma to an extent.

[10] In media accounts of TSF that I collected for the newspaper archive, and throughout my interview transcripts, there are references to a "wall of water" that swept through Cruso. Josh Palmer, a service hydrologist with the National Weather Service (NWS), explains that this phenomenon is common in mountainous regions. In the case of Haywood County specifically, the wall of water occurred due to water accumulating on the Balsam Ridge above Cruso; because of the oversaturation of the ground, the rain falling on the ridge had nowhere to go but down the slopes and into Cruso. Residents also allege that forestry practices in the Shining Rock Wilderness Area created a dam of forest debris that eventually burst due to rainwaters. Palmer notes that while such a dam burst may have contributed to the wall of water effect, the NWS has not been able to substantiate that claim. For more information, see Boyle (2021).

> coming…And then I thought, oh, you're crazy…I never thought I'd be that person that felt like that. I thought I was…stronger than that. (Personal interview, January 18, 2023)

This quotation is interesting in the context of Haywood County specifically. As I have already established, I selected Haywood County as my area of study partially because residents endured devastating floods in 2004, which is relatively recent, and I was thus interested in learning if respondents who experienced the '04 floods were better prepared for those in 2021. However, in my background research on Haywood and interviews, I learned that while parts of Haywood did suffer a "double whammy" due to the two events, other parts, such as Cruso, did not sustain much damage in 2004, at least not to the extent of causing long-term trauma in respondents. This diversity in experiences is reflected in Jill's response; although she does mention elsewhere in her interview that she lived in Cruso during the '04 floods and remembers some damage from the event, she was nevertheless caught off guard by feelings of post-flood trauma in '21. Her experience indicates that the severity of disasters, not just their mere occurrence, should be taken into consideration when studying communities like those in Haywood County.

Another common thread connecting respondents' statements about post-TSF trauma is its persistent nature. While some other respondents, like Jill in the above paragraph, clarify that their emotions have improved to a degree, others did not provide such a caveat. For example, Paul recalls an interaction he had with a woman shortly before our interview:

> And even last week I was talking to one of the ladies…and we was talking about what happened and how stuff went by and all. And she broke down and started crying. She is still, still mentally shaken up…And she actually ran, she went up on the bank to a higher elevation and she sat there and listened to people screaming as they were washing down the river. And…I don't think she'll ever get over that. (Personal interview, January 24, 2023)

These feelings of persistent trauma were not universal among respondents, which may be due to the fact that not everyone experienced the flood like the woman Paul references. This

range of experiences suggests that the duration of trauma is related to what one witnessed during the event. Other people, despite not explaining their emotions with such visceral pain, nonetheless reported that they still felt traumatized in a significant way. On this topic, Neal states:

> So the impacts from Fred, we see every day. We feel every day. And it's kind of like…a loss brought on by the death of someone in the family. You know, you think about that every day. And it doesn't seem to subside. (Personal interview, January 20, 2023)

Neal's final comment here sums up some respondents' emotions accurately–the pain does not "subside" over time. When taken together, Paul's observations about the lasting trauma in a Cruso community member and Neal's firsthand experience with persistent, intense feelings of trauma indicate that while some respondents have found a way to move past TSF, others have not, and perhaps will not.

Trauma responses are common in the literature, and therefore, the responses presented above did not surprise me. However, there is a subset of responses that I did not expect, in which respondents used language that suggests they didn't think their experiences were extreme enough to need words that reached the serious level of "trauma." Ben's response is particularly illustrative:

> I don't wanna downplay people who have gone through traumatic experiences, but it is very hard for not only the staff but for my family in general, if it starts to rain or storm really hard, there is always that creeping fear in the back of our mind now of, this is a possibility now that this could happen. And it's a very intrusive thing…to live with. (Personal interview, January 19, 2023)

This response is striking to me. To an outside observer, it is clear that it is reasonable for Ben, his coworkers, and his family to have had a trauma response to TSF, as being in a basement that is actively flooding is, indeed, a traumatic experience. Prior to this point in the interview, Ben explained that the brewery's basement ultimately flooded to its ceiling, and the main level of the business saw two feet of water; had he, his coworkers, and his family

not made the early decision to evacuate, they very well could have drowned. Yet, Ben here exhibits a feeling that this experience was not truly traumatic, or at least one that he would not describe with the word "trauma." I have not encountered this trend in the literature and thus believe it warrants further investigation–why don't people who have lived through an experience that others would describe as "traumatic" choose to describe their experiences as such? Are memories of the event easier to "live with" when respondents choose words that seem less extreme? This subject no doubt requires further study.

"Survivor's guilt," a similar but distinct concept, can be seen in another response. Susan, a retired school librarian who owns a cabin in Cruso but does not live there full-time, expressed a different but related feeling to the "unworthy" trauma response:

> There's a certain amount of guilt, too, that comes with it, you know, survivor's guilt. When you see people that it's their main home, they've lost it, they're having to deal with so much. And you think, oh man, we're lucky why? (Personal interview, January 4, 2023)

Although Susan's survivor's guilt is not identical to Ben's downplaying of his experience, I would argue that her feelings are at least in the same ballpark as his because they are both predicated on the idea that there are people who suffered more and whose feelings of trauma are therefore more valid. In essence, they are putting their experiences in a different context, perhaps to give themselves a perspective that they endured a less serious experience. The similarities and differences between these two examples of trauma response thus deserve further investigation, to see how distinct they truly are.

The subthemes I describe above–unexpected trauma, persistent trauma, and "less legitimate" trauma–do not represent the full spectrum of interview responses. Other subthemes include the passing of trauma to others, delayed trauma, and a lack of trauma altogether. The diversity of responses is intriguing, and I could conduct an entire research project solely on trauma responses to TSF. It is also worth noting that I did not specifically

ask respondents about the trauma response; the quotations above are in response to various other questions. Therefore, it is significant that respondents felt that bringing up their trauma, most often in response to the question of how TSF affected them, was important. Ultimately, the findings I present here confirm that trauma is indeed common after floods, but there are some understudied aspects of the trauma response, particularly the idea of an event or experience being "unworthy" of being described as traumatic, which warrant further study.

ATTITUDES TOWARDS THE FEMA RESPONSE

"You can't count on just FEMA."

Based on the literature (Button 2010; Freudenburg et al. 2009), and the remarks made by some affected by the 2022 Kentucky floods, as reported on in the media (Duvall 2022; Bennett 2023), I expected that respondents in my study would report overwhelmingly negative attitudes towards FEMA's response to TSF. However, respondents' attitudes towards FEMA's response and FEMA workers are more complex. While a large-scale public opinion survey of attitudes towards the FEMA response is beyond the scope of the present thesis, in this section, I use quotations from respondents to show how the common trope of negative views of FEMA is complicated in the case of TSF. More specifically, I outline several commonalities in responses, namely those with overall positive attitudes towards the FEMA response, those with ambivalent or negative opinions of the FEMA response, and insights from people working with FEMA from an organizational standpoint.

Despite providing some caveats in their responses, several respondents characterized their experiences with FEMA as positive overall. For example, when Jill required FEMA assistance to repair her well, she recalls:

> And they were very helpful…I can't say anything bad about FEMA. They…helped me through the process. They were kind every time I talked to them. Now, were some of them a little confused? Yes. But once you…found the right person to talk to, and you had to be persistent…I know that other people were more frustrated, but they…treated me very well. (Personal interview, January 18, 2023)

This response is interesting because Jill acknowledges that not everyone's experience with FEMA was as positive as hers; the addition of her comment that "other people were more frustrated" suggests that dissatisfaction with FEMA was common in Cruso, or perhaps that she is aware of more negative attitudes towards FEMA in larger, national conversations. Based on his remarks, Neal also had overall positive attitudes towards FEMA:

> I think the workers are marvelous. They're part of the bureaucracy, and I use the term bureaucracy not as a negative term as it oftentimes is…And the information that was shared [at community meetings] was extremely helpful. And people from FEMA have always been there, ready to answer phone calls. So I would give them a very, very high mark, if I were giving them a college grade, it would be an A+. (Personal interview, January 20, 2023)

Similar to Jill, Neal feels that it is necessary to acknowledge that his positive regard for FEMA is not necessarily universal; seeing as his background is in political communication, he is comfortable offering his thoughts as to why others find FEMA frustrating, namely that "they're part of the bureaucracy." Overall, Jill and Neal's opinions on the FEMA response, both on a personal level and in a larger sense, are positive, yet they both felt it necessary to acknowledge the negative attitudes of others in their communities.

The positive attitudes towards FEMA expressed by Jill and Neal were not shared by all of the people I spoke to in Haywood County. Interestingly, Jill and Neal were both "successful" in their interactions with FEMA; Jill received a reimbursement for the repair work done on her well, and Neal is currently going through the FEMA buyout program. In contrast, those who expressed more negative opinions towards FEMA were those who did not receive assistance from the agency. For example, Susan, who did not receive FEMA aid because the cabin she owned was considered a second home, said:

> It is extremely time consuming…I don't know how people are doing it when they're trying to work…And I understand it's got to be set up so that people don't take advantage of the situation. They've got to be held accountable for the money that is being spent…I think what I've learned…through the process is that initially there is a lot of help. Initially…people come in and you feel like it's going to be okay, it's going to be alright. But then the further you get into it, the more frustrating it is. You can't count on just FEMA. And it's not set up for that purpose anyway. That's my impression. (Personal interview, January 4, 2023)

In this quotation, Susan provides several criticisms of FEMA, specifically that the application process is time consuming, inaccessible, and complicated. However, even though she speaks with a generally negative tone, she offers qualifications to her point and acknowledges positive aspects of FEMA, such as accountability structures. In this way, her response is similar to those of Jill and Neal; regardless of whether they felt overall positively or overall negatively towards FEMA, all three respondents felt it necessary to acknowledge "the other side."

Other respondents with negative opinions of FEMA were not so charitable. For example, Spencer, a department store employee who lived in Cruso at the time of TSF but has since moved away, made the following comparison when speaking about FEMA:

> Whereas people [I know] that have been working with church community services are readily getting their homes repaired…within, you know, four- to eight-month periods, I know someone who was in contact with FEMA and was one of the first people to get a response on a reconstructed house directly after the flood, and he still is homeless living with his sister to this day. (Personal interview, January 3, 2023)

Like Susan, Spencer emphasizes the slow response time of FEMA, in this instance providing a concrete example. Unlike Susan, Spencer did not indicate that he had dealt with FEMA directly; rather, his opinions seem to have been formed by his observations of other community members' experiences. Spencer's response reflects the need that those not dealing with the "frustration" of working with FEMA feel in validating the shortcomings of the organization's processes. In this way, his response can be read as a form of solidarity

with other community members, even more explicitly than the other responses I have discussed.

While many respondents spoke about FEMA from a personal perspective, several individuals remarked on their experiences from an organizational standpoint. Two responses from government employees in Haywood County highlight the uncertainty that the FEMA response caused in affected communities. For Emily, a public information officer with a local emergency services organization, the main issues she saw with FEMA stemmed from residents not understanding the level of support they provide:

> I think the challenge that folks have with FEMA is that they misunderstand the resources that are available and get frustrated when they don't feel like they get the help that…they expected FEMA to promise. When we work with them…there's a transition period where we kind of hand over what we can do for people to the more long-term goals of FEMA and other agencies…I'm looking to the future and wondering if there isn't a way that we could do that more seamlessly to help people understand what happens when FEMA comes. (Personal interview, January 25, 2023)

Emily's goal of making FEMA policies and services more easily understandable to the general public would certainly alleviate post-disaster uncertainty if implemented. The problem in this case seems not to be FEMA's response itself, as the majority of respondents felt that FEMA responded appropriately, but rather, the system behind the response. The large federal bureaucracy is complex and bound by regulations that few really understand, which breeds uncertainty in and of itself. Heath also spoke of FEMA's tendency to sow uncertainty:

> I…always had the suspicion, and I was…proven to be correct, that FEMA would bring some resources, some help, but not the silver bullet people were looking for…Initially FEMA showed up with an initial amount of money that was meant to buy meals and hotels and people thought that was all FEMA was going to offer. I think there was a lot of programs…but you had to apply for that. I still think there was a lot of confusion. (Personal interview, December 30, 2022)

During the '04 floods, Heath's father was a public official in Canton, and he explains that seeing the FEMA response from that perspective 17 years prior set his expectations for the

’21 response. Although it was better, he explained it was still no “silver bullet.” Heath’s perception that the FEMA response led to “confusion” goes hand-in-hand with Emily’s assessment that people “misunderstand” what FEMA can do for them; even when FEMA responds “by the book,” people are still unsure of what to expect from them.

Based on my prior research, I went into Haywood with the expectation that most people would have nothing but negative things to say about FEMA. This assumption proved to be incorrect; while some respondents, like Spencer, had unequivocally negative attitudes towards the organization, most others, both those with overall positive views and overall negative views, listed the “pros and cons” of the FEMA response in their answers. This tendency to supply caveats perhaps relates to the desire for respondents to acknowledge that their peers did not have the same experiences with the organization as they did. Additionally, several individuals, particularly those who work in local government, noted the uncertainty that is seemingly inevitable due to the current structure of FEMA’s disaster response protocol. Respondents’ views on the larger federal government response to TSF are also full of nuances.

ATTITUDES TOWARD GOVERNMENT RESPONSES

“The government or the federal or the state or whoever needs to say…there’s got to be an easier way to do this.”

If respondents’ attitudes towards FEMA are complex, then their attitudes towards other forms of governmental responses to TSF are even more so. When I asked respondents to explain their opinions of the government’s response to TSF, they answered with regards to different levels of government (local, state, federal, etc.). Depending on their answers, I also

asked several respondents how they felt about the delayed disaster declaration from the Biden administration. In this section, I present quotations from respondents regarding their attitudes toward government responses to TSF, specifically concerning the topics of debris pickup, work between different levels of government, challenges local officials had in responding to TSF, and broad assessments of government responses overall.

When I drove through Cruso in early 2023 to conduct interviews, I was struck by how much flood debris was still visible. Piles of trash lined the roads, still waiting to be picked up, several cars were twisted around trees or lying in the riverbed, and some houses stood mangled and abandoned. Over a year after the flood, there is still much cleanup work to be done. Several respondents expressed their opinions of governmental response to TSF by voicing their concerns about the topic of debris pickup. For example, Jill said:

> Debris removal was huge. I mean, there was just piles and piles…And we were told that if you could get all your debris to the highway and that it would be picked up. But…nobody had big equipment, how are we supposed to get it to the highway? So…that's something I think…the government or the federal or the state or whoever needs to say…there's got to be an easier way to do this…They did finally come in. But it was…looking at it for eight months to a year before…it sort of got cleaned up some. (Personal interview, January 18, 2023)

In this instance, Jill points out that the current system for debris removal is difficult for residents because they do not have the necessary equipment to move the debris to government-sanctioned pickup spots. This challenge is further evidence that there are systemic barriers in the formal disaster response procedures. Earl, Susan's husband and a retired truck driver, also brought up the issue of debris removal in his interview:

> It looked like it was going to be bam, bam, bam, bam. But then it slows down. Get the have-to stuff done…any complete blockages to the stream, I'm sure they had to get rid of…Which is why there are still piles on the stream banks down through there that we can see, I expect to get them hauled off and done with it…But there's still a lot of non-biodegradable stuff, shall we say, left. (Personal interview, January 4, 2023)

In this case, Earl acknowledges that the government seemed to prioritize major debris removal to prevent the river from getting clogged in the future. However, he provides a

caveat that much of the "non-biodegradable stuff" has not yet been cleared. One thing that unites Jill and Earl's responses is their emphasis on the slow time frame for debris removal; they both acknowledge that it eventually got done, or presumably will get done soon, but imply that it took too long. This slow response time is significant because having excess debris could worsen future flash floods and, as the newspaper archive shows, is a widespread matter of concern for Haywood County residents (Hyatt 2022). When taken together, Jill and Earl used the instance of debris removal to discuss what they believed to be a slow governmental response to TSF.

Several interviewees spoke about the communication/cooperation between different levels of government in their responses. Some expressed positive opinions on the topic; for example, Heath said that "Senator Tillis, Governor Cooper, Speaker of the House Moore, our local delegation, have been phenomenal…Democrats and Republicans…people should be proud of the bipartisan support, we've been able to accomplish things" (Personal interview, December 30, 2022). As a local politician, Heath is speaking from experience in this case, as he reiterated throughout his interview that officials from higher levels of government were mostly receptive to his requests for resources and leadership advice. From his perspective, intergovernmental communication was strong after TSF. Neal spoke in support of Heath's success with working with upper levels of government:

> [Heath] has done a remarkable job about his building relationships with county and state and central government…[He] has an important role, and that is being able to be a face of the town and talking to people about our needs and trying to find avenues of monies that can help us out. So he has been able to do this. And we have found assistance through the county, through the state, and…through the central government. (Personal interview, January 20, 2023)

These responses are interesting because they highlight that local officials believe that, from their perspective, the intergovernmental response to TSF has been strong.

However, not all government workers report such seamless interactions. While some government workers spoke positively about being able to respond to TSF, others acknowledged the difficulties they faced in their response. When speaking of the delayed disaster declaration, Emily noted that:

> It caused a lot of consternation in the community and created a situation where we had to try to explain as best we could what we knew what was happening. So there was a lot of information requests from media and from the public wanting to know what we knew about the status of that. And because…the request happens at the state level, a lot of that is out of our local hands…And we just didn't have the answers sometimes and that creates a frustration because they want us to have the answers. (Personal interview, January 25, 2023)

Here, Emily explains that residents felt "frustration" due to a lack of information, and she recognizes that she played a role in that information breakdown because she was not able to fully answer those asking questions due to a limited response by higher levels of government. This situation reveals the struggles that come with disaster response being divided between different levels of government; while more local levels, such as municipalities, the county, and the state, were able to quickly mobilize to respond to TSF, the Biden administration did not approve Roy Cooper's emergency declaration request until September 8 (Associated Press 2021). Thus, federal assistance and money lagged behind more local forms of support. Pete, a government employee in Canton, also spoke of the difficulties local government workers had when trying to respond to TSF, in this case while it was still actively flooding:

> I would say that…we weren't able to fully respond in the way that we would have liked to in an event like that just because we were so affected by the floodwaters…All the properties that house us, the police, fire, town hall, administrative staff, pretty much every town facility other than our public works facilities, our street department and water and sewer department, pretty much every facility was inundated with flood water. (Personal interview, January 19, 2023)

During the flood, Canton officials had a limited ability to help residents because they were facing infrastructure breakdown as their own facilities flooded. Elsewhere in his interview, Pete points out that relocating these critical services out of the floodplain should have been

done after the ’04 floods, and that while it is currently a priority, it is difficult given budgetary constraints. Barriers to relocation is a common problem for flood-prone communities across the US (Tempus 2022). Emily and Pete are not speaking about the same thing; while Emily discusses the challenges of working in a county government structure that is not fully integrated with the state and the federal levels, Pete speaks of the immediate barriers government employees faced to assisting in flood response due to the prior failure to relocate city services, which would have made the local government better able to operate and respond to residents during TSF. Despite their different subject matter, these responses highlight problems with government response to TSF from a local perspective.

Government workers were not the only people to comment on the institutional response to TSF. For instance, Jack spoke positively of the local response to TSF:

> Emergency services did a fantastic job. Haywood County did a fantastic job…and their [public information officers] did a fantastic job with getting ahead of the media and getting out there and laying things out for people. So that’s what everybody’s seen. (Personal interview, January 11, 2023)

Here, Jack praises the local response without offering his thoughts on the response from the state or federal government. His focus on the county’s response is perhaps due to the fact that most respondents “on the ground” were from the surrounding area, due to the delayed federal declaration; thus, in the immediate period following TSF, recovery was largely led by more local levels of government. When asked about government response, Susan chose to frame her answer by talking about upper levels of government: “Initially I think that the response from the government was wonderful…I don’t think it’s sufficient but it’s probably all that their [budget] allowed [them] to do” (Personal interview, January 4, 2023). While she does not think that the federal response was adequate, she does emphasize that it was likely the best they could do within the current structure. This attitude relates to one of the larger

findings of my research, namely that even in situations where the government is able to respond to disasters as they are supposed to, those affected are still left wanting. This observation suggests the need to assess the strategies the federal government and FEMA employ when responding to disasters.

In sum, respondents spoke about government response to TSF by invoking the slowness of debris pickup, the ups and downs of working with different levels of government, and the perceived successes and failures of different levels of government. Although these issues are certainly connected to the previous section on the FEMA response, it is important to highlight the other bodies involved in disaster response and their effectiveness in the eyes of residents. Thus far, I have discussed residents' opinions of responses to TSF as well as post-flood emotions and long-term individual trauma in the aftermath of the flood. To conclude this chapter, I explore how TSF has affected respondents' views on the possibility of future floods in Haywood County.

CONCERNS ABOUT THE FUTURE

"We know we've got something that close to a creek, and a storm's hitting this little narrow valley, it's going to take a chance on us."

In the responses I collected, one intriguing theme that emerged was the level of individual concern about future floods. Most individuals acknowledged the possibility but did not seem overly worried about it. Additionally, some respondents, especially those in government roles, used their concern about future disasters as a bridge to discussing mitigation efforts that could be/are being taken to lessen the effects of future catastrophes. In

this section, I provide statements from respondents that demonstrate their feelings of concern and opinions of what mitigation strategies the government should implement.

The individuals I spoke with expressed varying levels of concern for future flood events at or exceeding the level of TSF. For Jack, the possibility is not one he is actively concerned about:

> As far as the community…itself…I don't want to say that they don't expect that this will ever happen again. But it's…really not in the forefront of everybody's mind that it can happen…like it did again. (Personal interview, January 11, 2023)

Seeing as Cruso is an unincorporated community, Jack, pastoring the largest church in the hamlet, presumably has a good handle on the concerns of his 100 or so congregants. Thus, his assessment that many individuals in the community are aware of but not actively anxious about the possibility for similar floods should be taken seriously. Although it is impossible to know more precise information about the topic without conducting a representative survey, Jill echoes Jack's statement when she says:

> I think you can't not [worry about future floods]. I mean…it's not something you dwell on, but…you see a hurricane come up…from Texas or…Louisiana,…and you think, oh,…is it going to…tear things up again? That's…always a thought.…and it will always be a thought. (Personal interview, January 18, 2023)

In this quotation, Jill reiterates Jack's point that it's "not in the forefront of everybody's mind" when she says "it's not something you dwell on." It is worth pointing out that, had I conducted these interviews more immediately after TSF, respondents might have expressed more concern about future events. The evolution of respondents' post-disaster emotions and attitudes over time is one reason why long-term studies, beginning in the immediate aftermath of a given disaster and progressing for several months or years after the event, are needed; it is important to understand how people's feelings change over time, and how these changing views might play into risk assessment (Phillips 2002).

The idea that living in an area such as Cruso comes with a certain level of risk can be seen in Earl's response:

> Until it's a hurricane or storm, I don't think there's much worry about it. I don't think we're really worried about it, at that. Some people might be…It is what it is. We know we've got something that close to a creek, and a storm's hitting this little narrow valley, it's going to take a chance on us. (Personal interview, January 4, 2023)

The mere existence of risk associated with particular places is not necessarily a problem, as almost all places come with some risk of extreme weather. However, what is important is that residents understand the true likelihood of a given risk, steps they can take to mitigate the effects of such a risk, and what to do in the event that the risk comes to fruition. In theory, FEMA flood maps illustrate this risk. However, between 2010 and 2022, flash floods were directly responsible for 1,354 deaths in the US (NWS 2023c); this death toll has led to public scrutiny of the accuracy of these maps. Additionally, as Pete mentioned in his interview, there seems to be a lack of understanding among the general public as to what terms like "100-year flood" actually mean. While a full treatment of this topic, that is, the level of understanding individuals have of FEMA resources like flood maps and common language used to speak of floods, is beyond the scope of this thesis, it does provide a valuable avenue for future research.

While some respondents framed their level of concern for future events in relation to their property, government workers spoke about ways TSF has led to new flood mitigation projects. At the county level, Emily explains that, in addition to planning a flood siren system, her organization is:

> Working on…community resilience projects, including public education, not just around sirens but around living in flood zones and general preparation. We took the website that we built for the recovery phase and have transitioned it now to a preparation focused website that will have information for the public on all sorts of disasters that could happen in our region …So if we go through this again, the infrastructure is already built. (Personal interview, January 25, 2023)

Emily, in her role as a public information officer, must recognize the need I mentioned above for a stronger local understanding of disaster risk. As she and her coworkers look to build resources for community awareness of disaster, Pete similarly spoke about how city employees in Canton took lessons learned from TSF to make new plans for the future:

> We have a much firmer much more well-established emergency action plan…we've got incident plans for all our departments so we know for future events where the low-lying areas are that are going to be flooded, what roads need to be shut down, what flood proofing methods need to be done for each of our facilities.…So I would say that we are in a much better position now to be able to respond to future events just because of the experiences of Fred. (Personal interview, January 19, 2023)

These responses are intriguing because, although Emily nor Pete explicitly state that they or their colleagues are concerned about future events, the very idea of mitigation is predicated on such concern. If local leaders in Haywood County did not think future flood events at the same level or worse than TSF were possible, they would probably not go to the lengths of installing emergency siren systems and relocating first-responder facilities out of the floodplain. Further work on institutional concern for future disasters compared directly to individual concern would help illuminate risk assessment and gaps in public understanding thereof.

In Haywood County, individuals are certainly concerned about future events, although the degree to which they are varies. Some, like Jack, Jill, and Earl, are not overly worried about a future flood event, although they are aware of the possibility. Others, like Emily and Pete, did not explicitly state they are personally concerned about the potential for future severe flash floods, yet their roles as government employees involved in mitigation projects imply that they believe it is a serious possibility that warrants action. Based on their responses, I believe that future researchers should examine topics like public understanding of FEMA flood maps and flood-related language and the association between risk assessment

and the actual probabilities of a given risk. It would also be worth researching the rationale behind certain government-led mitigation efforts, as they hinge on the belief that if a disaster happens once, it is liable to happen again.

CONCLUDING REMARKS

My interview script was informed by a mix of common findings reported in the literature, topics that seemed to be locally relevant based on my review of media coverage of TSF, and my own personal inquiry interests. As is to be expected with any interview-based project, the themes that emerged in participants' responses to my questions both confirmed and complicated pre-established themes and expectations.

When describing their emotions after TSF, respondents predictably expressed shock, uncertainty, and melancholy, but some of the ways in which they expressed those feelings were surprising. Likewise, when recounting long-term trauma, respondents spoke in similar ways as people in other studies, yet several also downplayed what was undeniably a traumatic experience.

With regards to FEMA's response to TSF, respondents spoke with nuance, whether they had overall positive or overall negative attitudes toward the topic; their inclusion of caveats that not everyone had the same experience with FEMA hints at overall feelings of community solidarity. When considering the larger government response to TSF, respondents generally felt positive about local response but more negatively about the federal response, explaining that things like debris pickup took longer than necessary. Taking together attitudes towards FEMA and those towards government more generally, it is reasonable to conclude that even when government responses are perceived by the public to be handled

properly, they still produce negative emotions such as uncertainty and frustration; these responses suggest the need for systemic changes to institutional disaster response.

Finally, while respondents did express concern that future events similar to or worse than TSF could strike Haywood County, they did not seem overly preoccupied with it. On the other hand, local government employees are actively working on flood mitigation projects, which suggests that those in positions of power *are* concerned about future floods.

Ultimately, the five themes I have outlined in this chapter account for only a fraction of the individual effects of TSF on Haywood County, from a small subset of its population. However, despite limitations in terms of generalizability, these findings provide many avenues for future research, both for other disaster researchers and me. In the next chapter, I continue my exploration of the effects of TSF on Haywood County by examining responses concerning how TSF affected their communities.

CHAPTER 4: COMMUNITY EFFECTS

INTRODUCTORY REMARKS

In the previous chapter, I discussed the emotions and attitudes of respondents as they related to how Tropical Storm Fred (TSF) affected them individually. In this chapter, I show how respondents believe that TSF affected their community in a larger sense. To be sure, there is some degree of overlap between these assessments, and I discuss the porousness of the individual/community binary in Chapter 5. This chapter follows the same format as Chapter 3, in that I offer a brief explanation of each theme, present quotations from respondents and offer my insights on what they mean in a larger sense, and offer a summary of my conclusions at the end. The five major themes that emerged in interviews with regards to community effects were the relationship between TSF and the COVID-19 pandemic; the importance of climate change in framing/responding to TSF; community cohesion in the aftermath of TSF; the benefits and challenges of community-initiated cleanup in the absence of a Federal Emergency Management Agency (FEMA) response; and predictions as to how TSF will be remembered in community memory.

THE COVID-19 PANDEMIC

"It was…kind of scary to go out in the general public and try to help people in large crowds."

TSF swept through Haywood County 17 months into the COVID-19 pandemic. At that time, the county was experiencing a relative increase in cases.[11] Unsurprisingly, then,

[11] On August 17, 2021, the day TSF passed through Haywood County, the US Department of Health and Human Services reported 37 new COVID-19 cases in Haywood, compared to a reported seven-day, daily

one common thread that emerged throughout the interviews was the looming influence the virus had on communities in the midst of TSF, a sort of compounding duo of disasters. In this section, I present statements from several residents regarding how COVID-19 affected the community's response to TSF. I did not ask respondents about COVID-19 specifically, however, some respondents felt it was an important topic to discuss and brought it up independently. Two major threads emerged in COVID-19-related responses: how COVID-19 affected the community while it was actively experiencing the flood and in the immediate post-flood period, and how it affected organizational responses to TSF. The responses and analyses I provide in this section should serve as a springboard for future studies on how multiple disasters can build up and uniquely affect communities.

Two respondents shared their perspectives on how COVID-19 influenced TSF's unfolding. Jack explained that it was related directly to one of the fatalities:

> [One victim] had COVID and…chose not to go to the rally point because [they] didn't want to give everybody else COVID. So [they] ended up being washed away in the flood. So…the rest of the community, maybe the rest of Cruso didn't know [them], but the people in [Campground A] did. And that was very impacting to [the community] to think that [they] chose not to come to a place of safety because [they were] worried about everybody else's safety. (Personal interview, January 11, 2023)

This quotation is intriguing for several reasons. To begin with, it provides a grim lesson on the importance of clear emergency preparedness plans within communities; a person did not take the recommended flood evacuation advice due to concerns about keeping others safe from illness and compromised their own life as a result. Thus, going forward, those in charge of establishing such plans should account for contingencies such as what different actions, if any, individuals with communicable diseases should take in the event of rising water. Jack

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average of 29 new cases. This wave peaked about a month later on September 18, when the daily average for new cases hit 52 in the county. See New York Times (2023) for more information.

also speaks to the perception he has from the community that this person's death "impacted" them in a unique way because, in a sense, this individual sacrificed their safety for that of others in Campground A. Although there are countless examples in disaster stories of individuals sacrificing themselves and being remembered fondly by the community as a result, this example is unique in that the sacrifice is tied to COVID-19, rather than to helping someone in a more active sense. Therefore, this quotation provides an example of how COVID-19 and TSF can be thought of as compounding events.

While Jack's example of the interplay between COVID-19 and TSF hinges on something that happened during the flood and how it affected the community in the longer-term aftermath, Spencer supplied a different perspective on how COVID-19 affected the cleanup stage following TSF:

> I feel like people's health and safety within the area was not only from their opinions on the topic, but also the devastation of the area and the safety and cleanliness of the community, exacerbated the effects COVID had on everybody…When that had happened, it was…kind of scary to go out in the general public and try to help people in large crowds. (Personal interview, January 3, 2023)

Spencer's feelings that it was "kind of scary" to help in recovery efforts after TSF are certainly relevant to future post-disaster planning efforts. It would also be interesting for future researchers to investigate, both in this case and in that of other environmental disasters that happened during the COVID-19 pandemic, the degree to which concerns about public health prevented people who would have otherwise helped from participating in relief efforts.[12] If that is the case, those responding to future disasters should make special plans for how to manage volunteers if a catastrophic event occurs during a public health crisis. When taken together, Jack and Spencer's perspectives on the interaction between COVID-19 and

[12] To be clear, Spencer did participate in cleanup efforts in Cruso for several weeks after TSF, but it is possible that others who similarly found the situation "kind of scary" did not.

TSF provide insights that will help disaster management leaders clarify future evacuation and recovery plans, and also shed light on how COVID-19 affected communal interpretations of TSF.

While Jack and Spencer primarily framed their beliefs of how COVID-19 and TSF affected the Haywood community with reference to their experiences as lay people, two other respondents, Pete and Emily, spoke about the topic in the context of organizational response. Pete explains how, when responding to TSF, the town of Canton was able to tap into funds from national legislation passed to help alleviate the economic toll of COVID-19:

> I think that Fred happening right after COVID and all the money that was there because of the American Rescue Plan because of the Infrastructure Bill, I think it was definitely a moment in time for us. I think if we…were going to pick a time to have to recover and…pick a time to create opportunities for…large-scale mitigation, now is the time. There's so much money kind of flowing through a lot of the state and federal funding mechanisms. (Personal interview, January 19, 2023)

While Pete's response is more tangentially related to COVID-19, it does clearly establish how COVID-19 created a specific political and economic context that made it possible for Canton to not only recover from TSF but also work towards mitigating future flood events, a topic I explored in Chapter 3. From Emily's perspective, the county's presentation of information during COVID-19 helped people understand how to find information about TSF:

> COVID had kind of given people a…guideline for where to find information about emergencies, and that was kind of still ongoing when the flood happened…our social media presence since I came on board because of COVID increased significantly. And I think because of that we had more resources available and people were used to looking to our social media pages for information that hadn't been there in past events. So I think people were better informed. (Personal interview, January 25, 2023)

It would be interesting for future researchers to explore this topic more explicitly and investigate whether, as Emily believes, establishing a strong public information infrastructure to respond to Disaster A will make it easier for the community to find reliable information on Disaster B. It is also worth emphasizing to other emergency services agencies throughout the

country the utility of adapting informational resources from past disasters to fit potential future ones. Although Pete and Emily speak of how COVID-19 and TSF interacted to affect the community in different ways, they both speak from their positions as government employees.

Not all respondents mentioned COVID-19 in their interviews. Those that did, however, mentioned important insights as to how the pandemic interacted with TSF to produce unique effects during, immediately after, and long after the flood itself. In addition to COVID-19, other culturally relevant topics also found their way into participants' responses, despite my not asking about them directly. In the next section, I analyze another such theme: the perceived relationship between climate change and TSF.

CLIMATE CHANGE

"And although not politically correct, I don't give a damn, this is not the aftermath, this is global warming, the consequences of it."

Although natural disasters have always played a role in human life, in recent years, hurricanes, wildfires, blizzards, and other forms of severe weather have become more frequent and more intense. Scientists and lay people alike are increasingly connecting such extreme weather to climate change. Thus, it came as no surprise that my respondents did the same. Similar to the topic of COVID-19, I did not explicitly ask respondents about climate change. This omission was an intentional decision, as I did not want to alienate respondents with political or religious affiliations that conflict with the concept of human-caused climate change. However, some respondents independently mentioned the topic. In this section, I analyze quotations in which respondents use the perceived growing threat of climate change

to explain how they think the community should respond to TSF in the long term. Two main trends emerged in the responses: connections between flooding in Haywood County and climate disasters in other regions, and the need for people to collectively address climate change.

From the beginning of my thesis work, I have planned to connect the responses of my participants to those in other communities that have faced environmental disasters, particularly those in Appalachia (see Chapter 5). However, in my interview script, I perhaps erroneously did not write any questions pertaining to this topic. Nevertheless, it emerged organically in responses, particularly when respondents connected the experiences of their communities to those of other communities. For instance, Pete explained that:

> I think that Fred in conjunction with the '04…floods showed that this may sort of be the new normal and that…climate change is impacting a lot of places that weren't previously seeing that level of impact. The eastern part of the state has a lot of relationships and mechanisms in place to be able to respond very quickly and recover quickly from a lot of their…hurricanes and big storms…whereas the mountains are just kind of now learning. (Personal interview, January 19, 2023)

While Pete compares disasters in different communities in the same state, Heath takes a global view of the issue:

> It is okay to look around, not only in our own backyard, but across the world…and see the frequency and intensity of storms is increasing…I check tropical forecasts like we're 300 feet above sea level. We're at 3,000 roughly. The intensity of this storm was different. There were houses that got flooded in '04 that are gone now, or their foundations literally moved. (Personal interview, December 30, 2022)

Like Pete, Heath invokes the '04 floods to emphasize his point that environmental disasters are becoming more frequent. Interestingly, both respondents also imply that it is not "natural" for such intense floods to occur in Southern Appalachia, as when Pete states that "the mountains are just kind of now learning" how to deal with catastrophic flash flooding, and Heath comments that he checks "tropical forecasts like we're 300 feet above sea level." When taken together, Pete and Heath's responses suggest that intense flash flooding is a new

challenge for Canton, and they suggest that it is necessary to look to other communities for guidance regarding how to respond to such disasters.

Like Pete and Heath, Neal also connected floods in Canton to extreme weather events in other places. However, while Pete and, to a lesser degree, Heath, use that connection to speak about one community learning about climate change response from another, Neal primarily frames his response as a call to action:

> We were told it was a 100-year flood, Ivan and Frances. But we are so aware now, it's not. And this is something that not only is Canton going to have to live with, but our neighboring communities, folks on the coast. And we see it in California…with the rain events that they're having.[13] And although not politically correct, I don't give a damn, this is…not the aftermath, this is global warming, the consequences of it. And we need to heed the lessons that we should be learning. That is something about our climate. (Personal interview, January 20, 2023)

Susan, while not referencing other specific communities that have experienced climate disaster, nevertheless uses TSF as a reason for communities to respond to climate change:

> And I get mad because I know a lot of it is climate related and we seem to be reluctant to do anything about that too. So it's just going to keep happening more and more frequently. So we all have to learn to take care of each other. (Personal interview, January 4, 2023)

Several things stand out in Susan's response. Similar to Neal, she expresses anger at a lack of action she believes communities and leaders have taken with regards to climate change; Susan says she is "mad" that we seem to understand that events like TSF are "climate related" but we aren't doing anything about it, while Neal doesn't "give a damn" about offending others with the suggestion that TSF is climate related. This anger is common in discussions about climate inaction and could potentially be used as a leverage point in

[13] Here, Neal is referencing the atmospheric rivers that caused severe flooding and mudslides throughout California from December 26, 2022, to January 17, 2023. Over the course of approximately three weeks, 22 people died due to this event. The disaster coincided with my interview timeline, which is likely why Neal brought it up in his response. For more information on these atmospheric rivers, see Castleman, Smith, and Toohey (2023) and NWS (2023b).

Haywood for coalition-building around environmental activism, as it did in New York City following Hurricane Sandy (Checker 2020). The potential for collective, community-level action on climate change is reiterated at the end of Susan's response, when she says that "we all have to learn to take care of each other." This action could take the form of post-disaster mutual aid, as respondents brought up throughout their interviews, or in other forms of climate activism, such as direct action. I did not ask respondents about their feelings towards climate activism or the possibility for such in their communities, but, based on Neal and Susan's comments, as well as relatively recent examples of environmental activism in Haywood (Bartlett 1995; McKinney 2005; MountainTrue 2021), I think that attitudes towards local climate activism would be a valuable avenue for future study.

Despite only half of the respondents mentioning climate change, it is still a notable theme when discussed in the context of community effects. Pete and Heath predominantly make the connection between climate change and TSF by comparing the disaster to those in other communities, while Neal and Susan emphasize their anger at collective inaction towards climate change, which produces disasters like TSF. In both instances, there is the potential for communal growth in the wake of disaster, namely in terms of learning lessons from other communities as well as the possibility for community members to come together and take action to address climate change. Continuing with the theme of Haywood communities caring for each other, in the next section, I discuss overall community cohesion in the aftermath of TSF.

COMMUNITY COHESION

"I think being a small community helps because you do know how to help people on a personal level."

Eleven out of 12 participants referenced post-flood community dynamics in their responses. While most responses indicated post-flood community cohesion, a few participants referenced more negative community dynamics in their responses, which aligns with points made by scholars who caution against assuming that post-disaster solidarity is universal (Tierney 2007; Freudenburg et al. 2009). In this section, I present quotations that show the diversity and nuances of participants' thoughts on post-flood community dynamics.

Nine of the participants believed that post-flood community dynamics in Haywood County were generally positive. Susan reflected that TSF brought people in Cruso together in new ways, explaining that people would "say, we found out we never knew our neighbors until something like this happened. And boy, did people take care of people" (Personal interview, January 4, 2023). As a part-time resident, Susan expressed throughout her interview that while she did not know many people in Cruso prior to TSF, she met a lot of her fellow community members in the post-flood period as people worked together to repair their homes and the larger community. No other respondents mentioned that they discovered they "never knew [their] neighbors" before TSF; thus, a valuable area for future study would be to examine whether people meeting others in their community is a common phenomenon, or whether the creation of new social ties post-disaster is mostly associated with part-time residents. In WNC specifically, an area with a growing population of second-home owners,[14] it would also be worth investigating how residency status affects post-disaster community

[14] In 2018, 21.8% of single-family homes in Haywood County belonged to second-home owners. For more information, see Town of Waynesville (2020).

cohesion, that is, if there is generally cooperation or tension between permanent residents and "second homers" post-disaster.

Susan's second statement, that people took care of each other in Cruso following TSF, is echoed by Emily: "I think being a small community helps because you do know how to help people on a personal level…it's not just somebody needs something, it's Mrs. Jones needs something, and I know someone who can help her" (Personal interview, January 25, 2023). Emily's response both supports Susan's assessment and diverges from it; while Susan noted that people helped each other *despite* not necessarily knowing them beforehand, Emily explains that people helped *because* they knew each other and could match a request for help with a face. The relationship between pre-existing community social networks and post-disaster cohesion that Emily and Susan bring up thus warrants future investigation. Based on the responses of most participants, I would say that it was generally the strength of pre-existing social networks in Haywood County, not the development of new ones based on a common adversity, that facilitated community cohesion following TSF, although this conclusion would require further research.

In this vein, a common response I heard from respondents was that, while not necessarily leading to new social ties, TSF strengthened old ones. This view is reflected in Neal's comments:

> I think it's brought us together…There's something unique about the spirit in Canton…they come together in times of crisis and help one another out…And I think that that has not been lost in the aftermath of Fred. I don't think it's a one-shot deal where people come by and are willing to help for a moment and then they're gone. I think people are still helping, ready to assist. (Personal interview, January 20, 2023)

The idea that TSF brought people together comes up in response after response. One thing that is unique about Neal's perspective is that he emphasizes that post-flood community cohesion is long-term rather than confined to the immediate aftermath of the disaster; the

duration of post-disaster community cohesion is a topic that warrants future research. When taken together, the responses of Susan, Emily, and Neal paint a portrait of strong post-flood community cohesion in Haywood County, whether that took the form of strengthening pre-existing social bonds or fostering new ones. Several other respondents, however, brought up instances that complicate this harmonious image.

Two respondents mentioned cracks in the veneer of post-flood community cohesion, specifically in Cruso. Spencer noticed this tension with regards to theft:

> I feel like as well as the community might have come together to deal with the common problem that everybody faces, it created some…upset feelings with a lot of people in the community that they just probably won't set foot back in the area. As I talked about, [Campground B] was owned by some people that we know and once it was destroyed…They said, basically, they came to clean it up, a lot of stuff had been stolen out of it, and they said they probably won't ever come back to the area again, and I feel like that was a…big sentiment around a lot of people to just leave it behind. (Personal interview, January 3, 2023)

In this instance, Spencer does acknowledge that people came together after TSF, but emphasizes that community cohesion was not universal. Similar to Neal, he also ties post-flood community dynamics to the longer term; however, while Neal discusses community dynamics in a positive light, explaining that people are still helping each other today, Spencer explains that the negative experiences people had with each other after TSF led to permanent outmigration. Post-disaster theft is a debated topic in the literature (Erikson 1976; Drabek 2002). In this case, I would argue that the actual occurrence of theft is less important than the perception that it occurred, because even if it didn't actually happen, the notion that it did could still push people to leave.

The other challenge posed to post-flood community cohesion came from Jack when describing a conflict at a local community center:

> We opened [the community center] up and it took…about two days for people just to grow weary and their emotions couldn't take it…Just serving food because you'd see somebody that…would come in for maybe a plate of food or whatever and they hadn't had electricity or

> water for two days…So it's hard to deal with one right after another. So we had someone come to us and say I have people that can help. And…in the frantic pace of everything we just said OK bring them, here's the key…And…that group ended up being very politically motivated. And so that didn't work out well. It turned out to be a pretty ugly scene actually because we had to remove them…from the community center. And so we learned…that in…response…we need to make sure that everybody's got the same interest in mind. (Personal interview, January 11, 2023)

Prior to interviewing Jack, I heard from a community contact that this conflict had occurred, and so I was not surprised to hear him tell this story.[15] This example of discord supports researchers that emphasize that post-disaster cohesion is far from universal (Boin and 't Hart 2006). Despite this unfortunate occurrence, Jack does note that community members learned a lesson about establishing shared goals prior to engaging in relief work, which will hopefully reduce similar tensions in Cruso going forward. Ultimately, Spencer and Jack go against the grain in their responses by sharing their perspectives on post-flood community discord.

In this section, I have discussed post-flood community dynamics in a broad sense by analyzing responses regarding positive and negative examples thereof. In the next section, I focus on a specific aspect of post-flood community interactions: cleanup efforts.

COMMUNITY-INITIATED CLEANUP

"And we started cleaning up again. And people didn't wait around for the government or permission."

Following many disasters, especially those which result in widespread property damage, community members often begin to immediately work on cleanup efforts alongside government agencies and nonprofit groups. In Haywood County, cleanup efforts did begin

[15] Per my community contact, I do know what group Jack is referring to here. I reached out to a leader of this group several times to request an interview got no response. Thus, I cannot present their "side" of the story.

shortly after the floodwaters began to recede, however, cleanup throughout WNC was unique because the Biden administration did not issue a disaster declaration until September 8, twenty-three days after the flood occurred (Associated Press 2021). Thus, although individuals, nonprofit groups, and government workers from the state level and lower began to work on cleanup efforts very quickly, as Governor Cooper declared a state of emergency on August 18, FEMA did not instantly arrive in Haywood, as reported on by the media and reflected in the newspaper archive (Lotshaw 2021). As Emily pointed out in her interview, their absence "caused a lot of consternation in the community" (Personal interview, January 25, 2023). All of this is to say that while post-disaster community cleanup is by no means unique, the situation in Haywood County specifically was unusual. In this section, I present quotations from respondents that speak to these unique circumstances, focusing on how respondents did not wait for "permission" to begin cleaning up, the types of cleanup services community members participated in, and the role of community work alongside larger, non-FEMA organizations.

As I mentioned above, the lack of federal disaster declaration in the wake of TSF led to anger in the Haywood community. Thus, it is not surprising that two respondents specifically emphasized that cleanup efforts were initiated by the community, *not* the federal government. As Jack states:

> It's a very self-sufficient people here. And four days after the flood, I didn't see any of them because they were all on their equipment, machines, fixing people's roads. They weren't…waiting for a state or federal agency. They weren't sitting around saying, "somebody come help me." They just got out and did it. (Personal interview, January 11, 2023)

Here, Jack ties the "self-sufficient" nature of the community to their active role in cleanup efforts. While Jack explains that these cleanup efforts were happening several days later in Cruso, in Canton, Heath says that they began the morning after the flood:

> I went home and the next morning, I was down here, 6 o'clock in the morning, walking the streets and we started cleaning up again. And people didn't wait around for the government or permission. And we started putting our…pieces back together. (Personal interview, December 30, 2022)

When taken together, Jack and Heath establish two things: one, that community-initiated cleanup began very quickly after floodwaters receded, and two, that it was clear to the community that early recovery efforts would be carried out in the absence of FEMA.

Regardless of the specific community, it quickly became clear to all Haywood residents that immediate cleanup efforts would be more or less local, rather than federal. Thus, people began to mobilize. Spencer describes some of the specific activities that he personally assisted with after TSF:

> Me and my dad, we spent pretty much every day like a 10-hour shift at a job…waking up, going to the community center to grab some food cooked by the community, grab any supplies that we might need. And we would grab specific supplies that people would ask for. We would take it out to them and then we would clean our yard and other people's yards to have appropriate piles for the trash compactors to come clean up and clean road spaces so that trucks could come through from Cherokee and other people who were giving support. And we did some menial service work for people in their homes to make sure they were safe. (Personal interview, January 3, 2023)

Several things stand out in Spencer's remarks here. One, he emphasizes that the food distributed by the community center was prepared in Cruso, by Cruso residents. The fact that he felt the need to emphasize this detail speaks to the ownership Crusoians feel over the cleanup efforts. Two, his account shows that, in the absence of FEMA assistance in the early days after the flood, people were often helping themselves and their fellow community members simultaneously. Finally, he references here, and throughout his interview, that first responders from the Eastern Band of Cherokee Indians, who live in the Qualla Boundary in several WNC counties (including parts of Haywood), were instrumental in early relief efforts. Earl also speaks about specific community-initiated cleanup efforts:

> The community center…they had that set up as they were cooking there and delivering meals to people who couldn't otherwise get anything…The ones that were up the cove…would

> drive down to the bridge and they would load up vehicles, walking stuff across, load up vehicles and carry the meals up and distribute them to people who couldn't get out, for a while. A little later they shut that down but [a local church]…they were serving meals every day. (Personal interview, January 4, 2023)

Spencer and Earl's summaries of post-flood, community-initiated cleanup efforts thus include cooking meals, delivering meals, distributing cleaning supplies, cleaning yards, putting trash in the correct spot for pickup, and repairing homes. These examples provide support to Jack and Heath's remarks that people did not "wait around" for external aid; they truly did take cleanup, both individually and communally, upon themselves. And cleanup efforts were not confined to the immediate post-flood period. As Susan establishes, some degree of community-led relief continues today:

> There's still a lady up in Canton that we took some furniture over to that collects furniture and household goods for flood victims and for them alone…When you take a donation in she prays with you…Then…she'll take pictures and post them and say, "this came in today," and then people will respond, "can you save that for me I'll be in tomorrow," you know. "Have you gotten in such and such yet? I don't have a place to put it but I'll need it someday." (Personal interview, January 4, 2023)

The degree to which similar ongoing efforts are occurring in Haywood County warrants future study.

A local community center was an integral part of post-flood cleanup efforts in Cruso. However, it was not the only organization working in Haywood after TSF; many nonprofits and local government agencies were also on the ground. The collaborative work between organizations did not always have positive outcomes. Emily explained that well-meaning outside groups did not always consult with local government workers before sending donations, which created difficulties:

> Like we would get a truck of supplies show up from Florida sent by someone who knows someone who lives here and they don't really know what's needed and they didn't ask ahead of time. So we get a truck full of stuffed animals that weren't useful. And then you have to figure out where to put these things. And logistically, we don't really have a lot of flat land or warehouse space…So I remember that being a challenge, is to figure out where to put stuff and how to make sure the right things got to the right people. So if you're trying to clean out

> your house because it's under six inches of mud, you need shovels and buckets and bleach…you don't need gift cards. (Personal interview, January 25, 2023)

This mismatch between donations and actual needs is an important topic in the literature and has also gained popular media attention in recent years, in reference to a variety of disasters (Winter 2012; Holguín-Veras et al. 2014). While this problem is common, Emily also pointed to a more unique issue: a lack of flat land to store donations. While Emily noted a tension in the patchwork cleanup system, from Paul's perspective, things were more synergistic:

> I've never seen a community in the many communities I've worked in that pull together to help each other. Up here in Cruso, after things got started, oh man, we had neighbors helping neighbors. With our guys…up here working, the neighbors would come over and help us during the day. I mean, they are a loving bunch of people. (Personal interview, January 24, 2023)

Here, Paul is describing the community support his volunteer group received in home rebuilding efforts. This quotation shows that, while interorganizational work was a struggle at times, as Emily points out, in other cases, it went more smoothly.

Community-initiated cleanup was a necessity in Haywood County following TSF, as residents did not have the option to "wait around" for FEMA workers to be allowed to enter the area. These cleanup efforts involved a variety of activities, instigated by both local organizations, such as the community center in Cruso, and outsiders, like Paul's volunteer group. Although there were some cases of inappropriate resources being shipped into the area, overall, community-initiated cleanup was an important contributor to overall levels of post-disaster community cohesion. This trend of "neighbor helping neighbor," among other images, will likely be remembered by Haywood Countians in the years to come, as I discuss in the next section.

TSF IN COLLECTIVE MEMORY

"The Pigeon River, it was a resource for us. We didn't see it as a threat…But now it's different. Now it can be our adversary."

In the grand scheme of things, TSF is still a recent event; the way that people remember it now will likely be different than the way they will remember it several decades down the road. However, the '04 floods are remembered in specific ways by the community, as my interviews revealed. For example, Jack remembers that the '04 floods were "slower rising" compared to the '21 flood, and that "everybody watched it coming, just watched it building, building, building, building. Unlike this one" (Personal interview, January 11, 2023). In this case, Jack directly juxtaposes the two floods, establishing that while the '04 floods were slow, the '21 flood was more rapid. The collective memory of the '04 floods has been complicated by TSF, and, as a result, TSF will hold a unique place in the community's memory. In this section, I explore the fledgling ways that TSF is beginning to be collectively remembered in Haywood County. Respondents explained that they expect TSF to be remembered with regards to community cohesion, community trauma, and a larger "flood culture" in the area.

As indicated earlier in this chapter, community cohesion was generally strong after TSF roared through Haywood, and that cohesion continues to a certain degree to this day. When asked about how they think TSF will be remembered by the community going forward, several residents explained that this cohesion will be the storm's lasting legacy. As Jill explains:

> I think it will be remembered as, "Look how we all came together"…It was neighbor helping neighbor. It was unbelievable…And it was some little man up [a local road] and we had water, we had everything. And he said, "you know, really, I would like some…buttermilk"…And by gosh, somebody got a car and went and got buttermilk and walked it up to him. That's the way it was. And I think that's what's going to be remembered

> is how everybody came together and just…pitched in. I mean, and if you fell apart, there was somebody there to hold you. (Personal interview, January 18, 2023)

Although TSF is an unprecedented disaster in the area, Jill still believes that it will be remembered for "neighbor helping neighbor" rather than its death toll or price tag.

At the brewery in Canton, Ben agreed that TSF is and will continue to be remembered for community cohesion in its aftermath:

> As far as culturally how it affected [us]…we have a sign…in the brewery that's signed by everybody that came, volunteers that came out to help us. And we have a picture of everybody together. So even as traumatic and as sad as it was, we still remember how it did bring a lot of people together. (Personal interview, January 19, 2023)

Ben is referring to a smaller level than Jill in that he believes that community cohesion will be remembered in the context of the local business community specifically, yet he also thinks it will be a vital part of the larger collective memory regarding TSF. One interesting thing about his response is that he puts community cohesion in direct opposition to trauma and sadness. This framing could be interpreted several different ways. I believe that Ben is communicating that while people outside of the community may assume that Haywood residents will focus on the tragedies of TSF when remembering the flood, Ben thinks that those who actually experienced it will remember the strong community response that occurred *despite* those tragedies. In larger conversations, disasters might be reduced to death tolls and property damage estimates, but in more local conversations, Ben and Jill's statements show that while those negative aspects aren't ignored, the event is not reduced to only that.

In contrast to their remarks, Susan warns that the memory of community cohesion is not a given:

> I can say what I hope. But after hearing, I have a good friend that's gone through hurricanes down near Charleston. And she says there's a period of time where everybody's pulling together and they're doing well. And then it goes to the whiny stage for a while there…and

> that it's not quite as…nice. But we've not heard negative. But then we're not here. (Personal interview, January 4, 2023)

Although Susan is not saying she necessarily thinks TSF will be remembered for a short burst of community cohesion followed by a "whiny stage" in which community cohesion breaks down, she does acknowledge that it is a possibility. This potential discord complicates Jill and Ben's predictions that TSF will be remembered for the strength of community cohesion, rather than negative things such as "trauma," "sadness," and "the whiny stage."

Other respondents also believed that TSF will be associated with negative experiences in the future, specifically with community trauma. In Chapter 3, I discussed respondents' experiences with individual trauma following TSF. As Erikson (1976) establishes, trauma can also be felt on a community level. In some instances, this trauma might be tied to specific events during the flood, as Jack points out:

> And then [victim's name]…First a wave of water and then a camper came by and hit [them] and took [them]. And that was probably the most traumatic, between [them] and…[the victim that died due to the landslide] as far as people dealing with that thought of this is…how they passed away. (Personal interview, January 11, 2023)

This instance shows the flaws of Erikson's typology of individual and collective trauma; although he would likely categorize the impact of the passing of specific community members as an individual problem, that is, "the faces of death" (1976:164-169), Jack believes that knowing the horrific details of how specific people died had an impact on the community as a whole. I believe that this example speaks to the ways that individual problems can be incorporated into collective memories.

While Jack speaks to more specific traumas that have a place in the collective memory of TSF, several respondents spoke of it in a more general sense. For example, Spencer simply stated, "every time it rains everybody's a little scared, naturally" (Personal

interview, January 3, 2023). This apprehension suggests that a longer-term fear of the river might become a permanent legacy of TSF. Emily expanded on this idea:

> I think there's, trauma might be a strong word, but I think there's a collective kind of uncertainty and awareness around disaster. People are a lot more interested in our work…our social media following has gone up because I think people are more keenly concerned about the potential for a problem. (Personal interview, January 25, 2023)

As I explained in Chapter 3, there was a tendency among some residents to downplay their individual trauma following TSF. This inclination can also be seen in Emily's assessment that "trauma might be a strong word" for residents' post-flood feelings. She also implies that TSF might be remembered as a turning point in terms of people's awareness of the possibility for significant environmental disasters in Haywood. When taken together, these responses suggest ways that communal trauma might be incorporated into long-term collective memories of TSF, specifically related to the details of how certain community members died and an awareness that such an event could happen again. This awareness extends beyond communal trauma and into the local culture writ large.

Two respondents furthered the idea that TSF will have a lasting place in collective memory by explaining that they believe it will have a lasting impact on local culture as a whole. Pete describes it this way: "I think…that the flooding is, I think it runs through a lot of levels of…our town and our region's culture. And having a second one just further reinforced that" (Personal interview, January 19, 2023). I did not probe by asking Pete specifically how flooding is intertwined with local culture, but I believe that an exploration of the relationship between the two topics would be a valuable direction of future study. Neal's response gives some clues as to the specifics of this question:

> When I was growing up, you know, we kind of considered the mountains safe…the Pigeon River, it was a resource for us. We didn't see it as a threat…But now it's different. Now it can be our adversary. (Personal interview, January 20, 2023)

Here, Neal elaborates on how the changing role of the Pigeon affects communal attitudes towards it. This response can be interpreted as part of a larger commentary on deindustrialization and climate change; throughout Appalachia, the "natural resources" that communities once economically depended on are now posing a danger to them. In the case of Canton specifically, the Pigeon River, which has been an integral part of the local economy since the logging days of the 1800s, is becoming more and more of a symbol of death and destruction, especially as industry declines in the area. The role of the Pigeon River within the community does not adhere to a simple binary, as it is still an economic resource for Haywood Countians, both in the traditional sense (its role in supplying Evergreen with water) and in newer ways (its role as a tourist attraction via rafting and tubing). Ultimately, however, Neal's assessment of the changing role of the Pigeon River in local culture, when combined with Pete's similar assessment, suggests that TSF will be a turning point in attitudes towards the Pigeon in collective memory.

In this section, I have argued that TSF is currently connected to the collective memory of Haywood Countians in three major ways: post-flood community cohesion, community trauma, and the changing role of the Pigeon River in local culture. Specifically, interviewees' responses show that TSF will likely be remembered for overall strong levels of post-flood community cohesion, the lasting impacts of community members' deaths following the flood, and a growing awareness that the Pigeon River could flood to that level again in the future. These trends are inextricably linked to the current role the '04 floods hold in the collective memory, a role that is liable to change given this more recent disaster.

CONCLUDING REMARKS

During my interviews, five major themes emerged with regards to the community effects of TSF. Those themes are the relationship between the COVID-19 pandemic and the aftermath of TSF; the relationship between climate change and TSF; overall levels of community cohesion after TSF; the nature of community-initiated cleanup following TSF; and the role of TSF in the collective memory of Haywood Countians.

In the first section, I found that COVID-19 loomed in the minds of individuals in post-flood Cruso, and also that, from an organizational perspective, COVID-19 aided recovery efforts due to the availability of large amounts of government money and the new knowledge of respondents to turn to local emergency services for official information on the disaster.

In the second section, I found that some respondents independently mentioned the connections between TSF and climate change and emphasized the commonalities and differences between their experiences and those of other communities, and also that some view TSF as a "call to action" to address climate change.

In the third section, I examined post-flood community cohesion and argued that while most respondents felt that the community "came together" after the flood, there were some exceptions, such as reports of theft and the difficulties disparate organizations faced when trying to work together.

In the fourth section, I more closely looked at one aspect of community cohesion, community-initiated cleanup, by detailing hostile feelings towards the federal government following TSF, the specific cleanup activities in which individuals partook, and the role of non-FEMA organizations in cleanup efforts.

Finally, in the last section, I discussed how respondents believe TSF is or will be remembered by the community, honing in on the lasting legacy of community cohesion, communal trauma, and an emerging "flood culture" in Haywood.

In Chapter 5, I revisit these conclusions. I also offer my thoughts on limitations of my work, connect my findings to another Appalachian flood, and summarize directions for future research on this topic.

CHAPTER 5: CONCLUSION

INTRODUCTORY REMARKS

This chapter includes the key points of my thesis and my plans for extending my study of Tropical Storm Fred (TSF) and Haywood County. In the first section, "Chapter Summaries," I outline the core information and findings I presented in Chapters 1 through 4, with each chapter receiving their own subsection. Next, I describe the "Limitations" of my research, with a particular focus on issues with the gap between TSF's occurrence and my interview schedule and the challenges of the individual/community binary in my coding process. In the third section, "Connections to the 2022 Floods in Eastern Kentucky," I compare and contrast TSF with another recent instance of Appalachian flooding, drawing on information gleaned from newspaper articles and presentations at the 2023 Appalachian Studies Association Conference in Athens, Ohio. I then describe "Future Directions," both for myself and other researchers. My "Concluding Remarks" include the main points of this chapter and highlight a very recent development in Haywood County.

CHAPTER SUMMARIES

Chapter 1: Introduction

Chapter 1 is divided into four sections: "Introductory Remarks," "A Brief Introduction to Haywood County," "Tropical Storm Fred," and "An Outline of the Present Thesis." In "A Brief Introduction to Haywood County," I summarize seven important aspects of the county: "Demographic Characteristics," "Geography and Early Settlement," "Politics," "Religion," "Economy," "Environmental Issues," and "Flooding in Haywood County." In the

next section of Chapter 1, I describe "Tropical Storm Fred." I begin by summarizing its lifespan and how it affected Haywood County in terms of rain totals, crests of the Pigeon River at different points, death toll, property damage estimates, and long-lasting ramifications. I conclude Chapter 1 with "An Outline of the Present Thesis," in which I introduce readers to my research topic and provide them with a "road map" of Chapters 2 through 5.

Chapter 2: Literature Review and Methodology

Chapter 2 is organized with the section headings "Introductory Remarks," "Literature Review," "TSF Newspaper and Document Archive," and "Methodology." I organize my literature review by dividing it into four subsections: "Theory," "Methods," "Case Studies," and "Mitigation Strategies." In the next section, I summarize my newspaper archive, which contains 193 news articles and 13 documents on the storm, sources which I reference throughout my thesis. I conclude Chapter 2 by explaining my methodology. For this thesis, I recruited participants using snowball sampling and conducted ten recorded interviews with 12 individuals between December 2022 and January 2023. After I conducted my interviews, I transcribed them and coded them for five themes pertaining to individual effects of TSF and five themes regarding community effects of TSF. These themes formed the basis of Chapters 3 and 4.

Chapter 3: Individual Effects

In Chapter 3, I use interview data to discuss five themes that show how TSF affected respondents on an individual level. This chapter contains five body sections. In the first body

section, “Post-Flood Emotions,” I use quotations from respondents to illustrate their feelings of shock, uncertainty, and melancholy in the period immediately following the flood. In the next subsection, I discuss “Long-Term Individual Trauma,” which refers to negative emotions respondents reported experiencing between several months to over a year after TSF; respondents describe their trauma as surprising, persistent, and “not warranted.” I then summarize their “Attitudes towards the FEMA [Federal Emergency Management Agency] Response,” which ranged from generally positive to generally negative. Some respondents also spoke about working with FEMA from an institutional perspective. In the next section, “Attitudes toward Government Responses,” I examine how respondents think TSF was handled by the government more broadly. Residents discussed delayed debris pickup, interactions between different levels of government, and more general perceptions of government responses. In the last body section of Chapter 3, “Concerns about the Future,” I present quotations from respondents that reflect varying levels of worry regarding future floods. They describe not being preoccupied with the thought, accepting that it’s a risk when living in a narrow valley, and mitigation strategies.

Chapter 4: Community Effects

Chapter 4 follows the same structure as Chapter 3, in that it contains five body sections. In the first body section, “The COVID-19 Pandemic,” I summarize how respondents discuss the relationships between COVID-19 and TSF by connecting one of the fatalities to COVID-19 social distancing recommendations, explaining that partaking in group cleanup efforts was uncomfortable due to the virus’s looming threat, and how COVID-19 affected government response to TSF with regards to public information infrastructure

and available federal relief money. In the next section, "Climate Change," respondents connect TSF to climate disasters in other areas and express anger over collective inaction towards climate change, emphasizing the need for governments and individuals to address the issue. In the section "Community Cohesion," respondents describe forming new social bonds after the flood, how pre-existing social bonds fostered greater intra-community mutual aid, persistent post-flood community cohesion, and negative community dynamics in the wake of TSF. One key arena in which post-flood community dynamics played out was "Community-Initiated Cleanup." In this section, respondents explain that community members began post-flood cleanup efforts shortly after the flood waters began to recede, how cleanup played out from an organizational standpoint, and the collaboration between local residents and volunteers in rebuilding efforts. In the last body section of Chapter 4, "TSF in Collective Memory," I use quotations from respondents to predict how the storm will be remembered by future generations of Haywood Countians. Respondents invoke post-flood community dynamics, enduring community trauma, Haywood's "flood culture," and the idea that TSF will be a turning point in how people view the Pigeon River as an "adversary" rather than a "resource."

LIMITATIONS

In reflecting on the thesis, two main limitations stand out: the gap between when the disaster occurred and when I conducted interviews and the porousness of the boundary between "individual effects" and "community effects."

TSF swept through Haywood County on August 17, 2021; I interviewed respondents between December 30, 2022, and January 25, 2023. Thus, between TSF and my final

interview, there was a gap of over 17 months. The problem here is not the fact that I interviewed respondents over a year later, but rather, that I did not have any baseline data from closer to August 2021 with which to compare responses. One oft-emphasized point in the literature is the need for longitudinal studies (Phillips 2002). Although my study does address this issue to a degree, it would be helpful to have interviewed respondents closer to the day of the flood so I could see how their responses changed, or did not change, over time. To address the need to study change over time, it is my hope that I can conduct follow-up interviews with these respondents in the future.

The other significant limitation of this study is the porousness of the boundary between individual effects and community effects. As I mentioned in Chapter 2, I chose to organize the emergent themes from interview responses in the tradition of Erikson (1976); although I organized responses into different categories than Erikson, I similarly discussed effects at two different levels. While this approach is helpful for organizational purposes, it has some downsides, namely that there is considerable overlap between the two. For example, in Erikson's (1976:168) case, while he considers the "death anxiety" that survivors experienced after the flood to be an individual problem, the death of many community members in Buffalo Creek also led to a large-scale loss of connection because it meant that many social ties were severed, which in turn isolated survivors from the larger community. I referenced the effect individual deaths can have on communities writ large in Chapter 4. With respect to my own organization scheme, I felt this tension most keenly in my discussions of trauma. When coding, I coded all instances of the word "trauma" as individual effects. However, as I began writing, I realized that certain respondents referenced trauma that the flood inflicted on the larger community. I then decided to move these responses to

my discussion of TSF in collective memory, which is not a perfect fit. Ultimately, this coding experience helped me understand that binary classification systems, such as individual/community, are useful for organizational purposes, but not entirely representative of respondents' actual experiences.

In this section, I have discussed limitations of my study with regards to the gap between when TSF occurred and when I interviewed respondents and flaws in my coding scheme. While these issues are not the only problems with my thesis work, they are the problems which are most glaring from my perspective and are areas in which I can improve in future research projects.

CONNECTIONS TO THE 2022 FLOODS IN EASTERN KENTUCKY

From July 26 to July 30, 2022, nearly a year after TSF, a series of severe thunderstorms drenched Eastern Kentucky (EKY) and led to catastrophic flooding throughout the region. According to the National Weather Service (NWS 2022a), some areas saw 14 to 16 inches of rain during this time, and surrounding areas received six to ten inches. In total, 44 people died due to the floods (Krauth 2022). At first glance, the EKY floods appear to be similar to TSF; the floods occurred so quickly that many people did not have time to evacuate, they took place in Appalachian counties, and they resulted in a significant loss of life and property damage. However, the more I learned about the EKY floods, the more I learned that they occurred in a much different context than TSF, specifically with regards to land use history.

As I explained in Chapter 1, in the 19th and early 20th centuries, Haywood County saw extensive logging, which may have affected its long-term vulnerability to flooding. Additionally, Cruso is situated below the Shining Rock Wilderness Area and the Blue Ridge

Parkway; as I mentioned in Chapter 3, some residents allege that land use practices in these areas were responsible for a "wave of water" that swept through the community, although that claim has not been substantiated. On the contrary, in EKY, flooding was exacerbated in 2022 by a very different culprit: strip mining and mountaintop removal (MTR) mining. As McCracken (2022) explains, the removal of trees and the disruption of natural soil composition leads to increased runoff at former surface mining sites. Although the two floods are similar in the sense that land use potentially influenced flooding, TSF occurred against a historical backdrop of logging, while the disaster in EKY is inseparable from coal extraction. A more in-depth discussion of the two events is beyond the scope of this thesis, however, a comparative study of TSF and the EKY floods warrants future study in order to establish the different contexts of climate disaster in Appalachia.

From March 16 to March 18, 2023, I had the opportunity to attend the 2023 Appalachian Studies Association Conference in Athens, OH. At the conference, I shared my thesis findings in a session titled "The History of Flooding and Flood Policy in Central Appalachia." I also had the chance to attend other sessions pertaining to floods and other environmental disasters, and many presenters focused specifically on the EKY floods. Coming from a variety of backgrounds, including academic research, mutual aid, local politics, and the nonprofit sector, among others, these speakers contributed to my understanding of disaster studies in an Appalachian context and raised several points worth mentioning in the present thesis.

In her talk "To Turn Forward, Listen Back: Insights from Appalachian Pasts Toward Regenerative Futures," Kathryn Newfont, a historian at the University of Kentucky, outlined three main causes of human-created floods in Central Appalachia, which occurred during

specific historical eras: deforestation, strip mining, and climate change. While deforestation and climate change have certainly contributed to human-caused flooding in Haywood County, strip mining has not; however, tourism-focused development, such as increasing urbanization which leads to more impermeable surfaces, might take the place of strip mining in the case of WNC. Additionally, WNC has been heavily logged since the industrial period, which other work by Newfont explores, and continues to face deforestation concerns today; in both cases, activists have challenged what they view as irresponsible land management (Newfont 2012; SELC 2023). Thus, these stages are, at least in the case of WNC, fluid. Newfont's research shows that although the "stages" vary depending on the region of Appalachia that is being discussed, human-caused flooding is not a recent phenomenon in the region.

Another session that I attended which influenced my thinking on this topic was titled "Climate Disaster-Impacted Communities in Appalachia: Lessons Learned on the Ground & Where We Go from Here." Convened by Callie Pruett from Appalachians for Appalachia, this roundtable brought together individuals from Haywood County and EKY to discuss how their communities responded to their respective floods, in an attempt to avoid "siloing" discussions of Appalachian disasters. The entire conversation was fascinating, however, I was most interested in their discussions of how aid is distributed differently through nonprofits versus autonomous mutual aid groups. Speakers from both groups discussed how they have more freedom to distribute funds from non-government sources, which tend to be less tied to means testing when deciding who "deserves" relief aid. However, the nonprofit workers in the session noted that they are still bound to formal, institutionalized processes due to their funding structures, which can produce a lag in terms of when people request aid

and when they actually receive it. Misty Skaggs of EKY Mutual Aid, which is not a 501(c)(3) organization but rather a non-institutionalized group of local people who help each other access money and resources, emphasized that while mutual aid groups might not have the same amount of resources nonprofits do, they are able to respond more quickly to community needs. Skaggs noted that while it sometimes feels like the group is "passing around the same fifty dollars," their ability to provide immediate or near-immediate aid to people in need is crucial.

Skaggs also touched on some of the barriers her group faces, specifically regarding distributing money. For example, she explained that she spent hours on the phone with representatives of PayPal and Venmo to work out issues she faced when trying to send many different people moneys following the 2022 floods. This example highlights the challenges of "nontraditional" groups advocating for themselves outside of formal institutions following disasters. Despite their differences, all of the participants on the roundtable agreed that the FEMA aid offered to their communities was inadequate, which was concisely communicated by Canton mayor Zeb Smathers, who noted that "FEMA can do better."

These insights are valuable to me as I consider future work in Haywood County, such as investigating whether community mutual aid groups exist in or near Canton and Cruso and how, if at all, they functioned following TSF. These communities certainly partook in collective cleanup, as I explained in Chapter 4; however, would they describe their work with the term "mutual aid?" Is there a local understanding of this term, and if so, are there existing efforts at forming a mutual aid group? How do the contextual similarities and differences in EKY and Haywood County influence the presence or absence of mutual aid? These are all

questions for future researchers, especially given the limitations of FEMA aid in the wake of Appalachian disasters.

FUTURE DIRECTIONS

Throughout this thesis, I have mentioned numerous avenues for future research on TSF and disasters more broadly. In this section, I restate these opportunities. I also summarize my personal future research goals on this topic.

In Chapter 2, I discuss the utility of quantitative methods in disaster studies. When applied to TSF and Haywood County, I think that future research could examine the relationship between certain demographic characteristics of flood victims (e.g., income, age, race) and the dollar amount of flood damage their property experienced, as well as how much, if any, FEMA reimbursement dollars they received for said damage. I also believe a study of flood insurance rates in Canton and Cruso would be useful; although flood insurance was not a focal point of my thesis, several respondents referenced its cost prohibitive nature. A comprehensive study of local flood insurance rates could quantitatively support their comments. In Chapter 2, I also mention the possibility for a quantitative study of material convergence in TSF (Holguín-Veras et al. 2014). As Emily mentioned in Chapter 4, no-priority donations took up valuable, limited space in Haywood County; a systematic review of this problem could help her organization plan for donation management in future disasters. I also mention my TSF newspaper and government document archive in Chapter 2. In the present thesis, I used the archival sources to corroborate statements from individuals. Going forward, I would also be interested in conducting a content analysis to examine how TSF was discussed in local versus national publications, and how coverage changed over time.

In Chapter 3, I analyze the individual effects of TSF on Haywood County. In the first section, "Post-Flood Emotions," I note that future research should examine how uncertainty following disasters operates among people with relative power on the community level, but with less power compared to those at the state and federal levels. In the section "Long-Term Individual Trauma," I note the need for future research on the tendency of some disaster survivors to downplay their trauma. Additionally, the relationship between this tendency and feelings of survivor's guilt should also be explored. In the section "Concerns about the Future," I explain that future research on public understanding and utilization of FEMA flood maps, as well as understandings of terms like "100-year flood," are needed to understand the risk assessments individuals make when deciding to live in a flood zone. In this section, I also point out the need for research concerning the relationship between individual concern for future disasters and mitigation implementation. Ulrich Beck (1992), a German sociologist, theorized that modernity is associated with "risk societies," in which society is organized around the chance of future disruptions, which are largely produced by modernity itself. His thinking, along with other scholars, led to the subdiscipline of the sociology of risk. In my future work, I plan to investigate this subfield more closely and explore its place in disaster studies.

In Chapter 4, I transition to discussing the community effects of TSF on Haywood County. In the first section, "The COVID-19 Pandemic," I note several avenues of future research. One such avenue is the need for researchers to explore the relationship between COVID-19 safety recommendations and the choice of individuals to participate, or not, in post-disaster cleanup efforts. I also point out the need for organizations to clearly communicate their emergency evacuation procedures with regards to what different actions,

if any, individuals with communicable diseases should take in the event of a flash flood. Additionally, future researchers should explore whether the public information infrastructure that many local governments established during the pandemic improved community members' long-term understanding of how to access official information regarding disasters. In the section "Climate Change," I propose that future researchers explore whether disasters similar to TSF propel people towards climate activism, as there seems to be the potential for such in Haywood County. In the "Community Cohesion" section, I note the need for further research on the role of social ties in disaster recovery, namely, whether disasters cause new ties to form, strengthen old ones, or both, paying particular attention to the role of second-homeowner status. Also, future research should consider how the strength of pre-existing community social networks affects post-disaster community cohesion, and how long post-disaster community cohesion generally lasts. Similarly, in the "Community-Initiated Cleanup" section, I note that future research should examine how long community-led aid efforts tend to last. In my last body section, "TSF in Collective Memory," one respondent references a pervasive "flood culture" in Haywood County that I believe warrants future research. More generally, this topic will require more study as time goes on and the ways in which community members discuss TSF evolve.

In this section, I have discussed many opportunities for further study on TSF in Haywood County, some topics of which I hope to study personally. Looking to the future, I am most immediately interested in expanding this project, perhaps for a sociology PhD dissertation. I would like to conduct follow-up interviews with respondents, perhaps on an annual basis, to see how TSF affects them in the long term. I would also like to conduct additional interviews with a more representative portion of the population, including groups

that may require special research considerations, such as migrant farmworkers. In sum, I am far from finished studying these topics, and my thesis work has led me to ask new questions about how TSF affected individuals and communities in Haywood County.

CONCLUDING REMARKS

In this chapter, I have summarized Chapters 1 through 4 and my relevant findings therein; highlighted the major limitations of my work, with a focus on the lag between the disaster's occurrence and my interviews and the blurred lines between individual and community effects; compared and contrasted TSF and the 2022 EKY floods; and noted key areas of future study, both for myself and for other researchers. When taken together, I believe that my thesis, while far from comprehensive, is a valuable case study for the field of Appalachian Studies, the interdisciplinary world of disaster research, and, hopefully, the people of Haywood County. If nothing else, this thesis documents a climate disaster that took the lives of six people and upended entire communities. Those stories will not be lost to history.

As I conclude this thesis, I would like to end with a story. On the morning of March 7, 2023, I was sitting at my desk and working on the "near-final" draft of my thesis that I would be submitting to my committee later that week. At around 9 a.m., I received a text message from one of my sisters. She had sent me a link to a WLOS story called "Canton paper mill to close, workforce reduced at Waynesville plant" (2023). I was completely blindsided by the announcement. It appeared that everyone in Haywood County was, too; as Canton's mayor, interviewed in another article, said, "When I was downtown and I saw grown men with tears in their eyes, there are not words, and no one was prepared on this dark

Monday to deal with that" (Thompson 2023). As I read these initial stories on the topic, I began to consider all the ways in which Evergreen's closure will affect the county I have grown up next to, and which I have dedicated so much of my time to learning about in the past year and a half. Although I hope this is not the case, it is possible that the mill's closure will trigger a different type of disaster in Haywood County, this time due to deindustrialization. That morning, as I considered such possibilities, I recorded the articles' information, set up a Google Alert for "Canton mill," and promised myself to always focus on researching the issues that are most important to my home region.

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APPENDIX A: INTERVIEW SCRIPT

1. Please tell me your name, your age, your occupation, and your history with Haywood County [may substitute for Canton, Cruso, Clyde, etc., based on where the respondent lives/lived]
    a. Did you live in Haywood during the 2004 floods? If so, can you briefly describe your experience?
    b. Have you experienced any other floods prior to Fred? If so, can you briefly describe your experience?
2. Describe how your day unfolded on the day Fred hit to the best of your ability.
    a. When did you first become concerned about the weather or the possibility of flooding?
    b. Where were you during the flood?
    c. What do you remember feeling during the flood?
3. Was any of your property [land or possessions] damaged during Fred? If so, can you describe the damages?
4. (if yes to #3) Did you need assistance in cleaning your property or replacing your possessions after Fred? If so, can you explain who helped you and how?
    a. [Non-FEMA aid/assistance]:
        i. How effective was the aid you received?
        ii. How do you feel about the aid you received, and why did you feel that way?
    b. [FEMA aid/assistance]:

i. Did you ever apply for FEMA aid or consider applying for FEMA aid? If so, can you describe that process?

ii. Did you face any challenges when applying for FEMA aid? If so, can you describe them?

iii. How would you describe your feelings towards FEMA, FEMA workers, and the aid you received from them?

5. How has Fred and its effects impacted your life?
6. What does the word "community" mean to you? How would you describe your community?
    a. How do you think Fred has affected your community? Why?
    b. Do you think your community has gone "back to normal" since Fred? Why or why not?
7. Is there anything else you would like to share about your experience with Fred?

Vita

Megan E. Hall was born and raised in Candler, North Carolina, a small town in Buncombe County. She attended North Carolina State University as a Thomas Jefferson Scholar and earned her B.S. in Plant Biology and B.A. in Sociology in 2020. Her undergraduate honors thesis is titled “Public Opinion and Genetically Modified Organisms.” After taking a year off from school to pursue freelance writing opportunities, she enrolled as a graduate student in the Appalachian Studies program at Appalachian State University. Her first day of classes, August 17, 2021, coincided with the arrival of Tropical Storm Fred and concurrent flash floods and landslides in Western North Carolina. She has been studying the storm and its effects on Haywood County ever since.