

Southampton, New Jersey



COMMUNITY RESILIENCY PLAN

**SOUTHAMPTON
TOWNSHIP**

**ROBERT L. THOMPSON
BUILDING**



VINCENTOWN



TOWN HALL

Est.
1884

**Pinelands
National
Reserve**



Keep it clean & green!

LEISURE TOWNE



**Published:
April 2024**

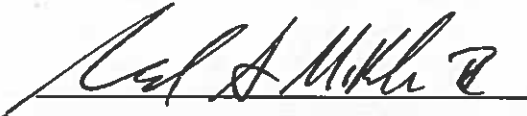
STATEMENT OF APPROVAL

The Community Resilience Plan was developed by and for Southampton Township. This plan was collaboratively developed with interested parties with guidance and support from the Department of Housing and Urban Development (HUD) and the National Institute of Standards and Technology (NIST).

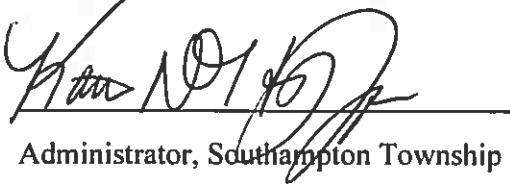
This plan identifies and prioritizes hazardous areas of concern and recommends mitigation efforts and funding sources that will help to protect Southampton Township.

The recommendations in this plan may change based upon development, hazards, and progress.

The following entities mutually agree with the contents of this plan:



Mayor, Southampton Township



Administrator, Southampton Township

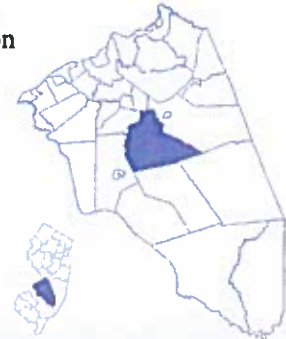


Emergency Management Coordinator, Southampton Township

Southampton Township, NJ Community Resilience Plan

Executive Summary

Southampton Township is a rural community located in South-Central Burlington County, New Jersey and home to a population of 10,317 people according to the 2020 Census. Southampton is one of 40 municipalities throughout the County.



Southampton has a total area of 44.224 square miles, of which, 43.668 square miles is land and 0.556 square miles is water. With 74% of Southampton Township being located within the Pinelands Preserve, a protected natural area of unique ecology covering 1,100,000 acres throughout New Jersey, Southampton is widely known and visited for its nature trails and scenic beauty. Aside from Pine Barrens, Southampton's beauty comes from the active farmland throughout the community that parallels some of the New Jersey highways that pass through the town. Among these are Route 70 and Route 206, which intersect at the famous Red Lion Circle, as well as Route 38. In total Southampton has 112.19 miles of roadway throughout the community. Southampton is often known by the name "Vincentown", an unincorporated area designated to the historic downtown area and center of the community. Others may know Southampton for its active adult community of LeisureTowne, which includes 2,255 homes for residents ages 55+.

Southampton Township is governed as a Township, with a Township Committee comprised of five elected members. The Township committee selects one of its members to serve as Mayor each year. The Township is managed by the Administrator/Clerk who oversees the daily operations of the municipality.

Southampton Township is patrolled full time by the New Jersey State Police from the Red Lion Barracks, located on Route 206 in Southampton. Emergency Medical Services are provided by the career and volunteer members of Hampton Lakes Emergency Squad. Fire Protection is provided by the volunteer members of Vincent Fire Company, Hampton Lakes Fire Company, and the New Jersey Forest Fire Service. The Southampton Township Office of Emergency Management coordinates for any major disasters or emergencies and has the authority to declare a Municipal State of Emergency as needed.

Despite all the wonderful things Southampton has to offer, there are certain natural hazards that loom over the community. It is important to understand that it is not realistic to assume that a threat can be completely eliminated, regardless of the amount of planning or dollars spent. This plan simply aims to identify some of the biggest hazards currently facing Southampton Township and develop mitigation strategies to lessen the impact of or improve the response and recovery from these threats.

This plan has been developed with input from stakeholders throughout the community and should be reviewed periodically and updated to adjust to new or developing hazards, revisit mitigation efforts, and address gaps in the response or recovery phases.



Southampton Township
Community Resilience Plan



What is Community Resilience Planning and why is it important?

Community Resilience is the ability to prepare for and adapt to changing conditions and to withstand and recover rapidly from disruptions. Resilience includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents.

Community Resilience is an important part of the planning process focusing mainly on the mitigation, preparedness, and recovery phases. This process is led by the Office of Emergency Management with the goal of minimizing the threat and/or impact of disasters therefore shortening and reducing the recovery from natural or manmade hazards.



Community Resilience Planning is not a “one and done” task but rather an ongoing effort to address and reevaluate new or changing threats. We must weigh all hazards, their risk, and potential impacts against the mitigation, response, and recovery plans that are currently in place to identify any gap in desired performance. Once that gap is identified, we must assess any methods to improve upon the plans to reduce the risk and/or severity therefore improving the recovery from such events.

A resilient community benefits everyone. It creates a community wide sense of safety and trust, which attracts prospective homeowners and businesses while retaining those we already have. A resilient community decreases the risk of health and safety issues as well as lessening financial and infrastructure losses.



Community Resilience

Coordination with Other Relevant Plans

This plan is not meant to replace or override any existing municipal plans, but rather to work in conjunction with other plans as a guiding tool to create a more resilient community.

Some of the other municipal plans that are already in existence and referred to are:

- Southampton Township Stormwater Management Plan
 - This plan establishes minimum stormwater management requirements and controls for “major development” that helps to reduce pollution and contamination.
- Southampton Township Emergency Operations Plan
 - This plan details the organization, responsibilities, capabilities, and procedures for response and recovery to an emergency.
- Southampton Township Flood Damage Prevention Ordinance (Chapter 17)
 - This plan promotes public health, safety, and general welfare by minimizing public and private losses due to flooding by controlling alteration of floodplains, requiring flood protection in new construction, and more.
- Community Wildfire Protection Plan (CWPP)
 - This plan is a collaborative, community-driven framework that outlines local priorities for wildfire risk management.
- Southampton Township Master Plan
 - This plan is the blueprint for a municipality that depicts current land uses, and guides decisions for both growth and conservation in the community.

Beyond the municipal plans, there are documents at other levels that help to shape this plan including:

- LeisureTowne Firewise Plan
 - This plan provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.
- Burlington County Hazard Mitigation Plan
 - This plan aims to reduce the loss of life and property by minimizing the impact of disasters by identifying risks, developing long-term strategies and creating mitigation plans to break the cycle of disaster damage and reconstruction.
- Burlington County Flood Emergency Operations Plan, Rancocas Creek Watershed Management Area #19
 - The purpose of this plan is to assign responsibilities and improve communication for issues within the Rancocas Creek Watershed.
- New Jersey Pinelands Commission Comprehensive Management Plan
 - This plan contains the rules that guide land-use, development, and natural resource protection in the Pinelands area.

These lists are not all inclusive and do not represent all plans that may play a role in community resilience.

Process and Methodology

The creation of this plan was made possible with the assistance of the U.S. Department of Housing and Urban Development (HUD) and the National Institute of Standards and Technology (NIST) through a project which Southampton volunteered to participate in for Community Resilience Planning for Disaster Recovery.

The plan was developed over the course of approximately one year, using the NIST Community Resilience Planning Guide for Building and Infrastructure Systems' six step planning process.

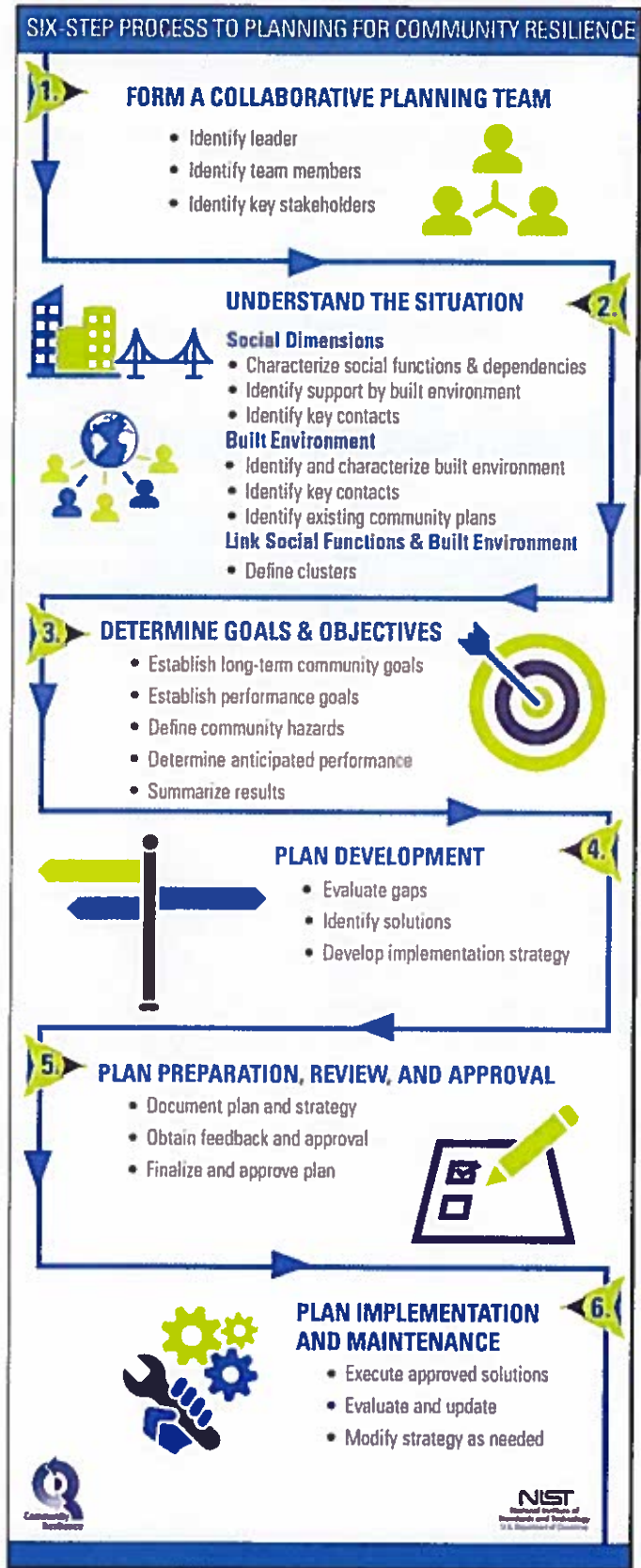
The process required a team approach to analyze the Township's current situation to identify plans, capabilities, opportunities, and threats. Once these items are understood, it is time to determine the hazards facing the community by looking at past, present, and future threats.

In community resilience planning, there is an expectation that there will be a gap between the desired recovery timeframe and the actual recovery timeframe. Determining *why* this gap exists is key to determining the possible solutions to reduce the gap between the desired and expected.

With possible solutions in mind, the implementation becomes the challenge. Some barriers to implementation include lack of manpower or time, funding, resources, authority, and laws/regulations. The plan must address each of these issues to present a realistic solution to the threats.

This plan should be updated periodically.

Southampton Township
Community Resilience Plan



Published: January 2024

2. Assessing Community Resilience

Identifying Vulnerabilities

Throughout the geographically large and diverse community that Southampton Township is, there are particular areas that are more susceptible to certain hazards. Beyond the location specific hazards of flooding and wildfire, there are vulnerable populations located throughout the community.

Historically, we can identify Ewansville and Vincentown as being susceptible to repetitive flooding issues. Those areas of town within the Pine Barrens are susceptible to wildfire. While rare within the boundaries of Southampton Township, the Pine Barrens are no stranger to wildfire.

Figure 1 Ewansville



Figure 2 Race Street Spillway in Vincentown



Figure 3 Scorched Trees from a Wildfire Encroaching On Homes

Floodplains

A floodplain is defined as the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that becomes inundated with water during a flood.

Most often floodplains are referred to as 100-year floodplains. A 100-year floodplain is not a flood that will occur once every 100 years, rather it is a flood that has a 1-percent chance of being equaled or exceeded each year. Thus, the 100-year flood could occur more than once in a relatively short period of time. Due to this misleading term, FEMA has properly defined it as the 1-percent annual chance flood. This 1-percent annual chance flood is now the standard used by most federal and state agencies and by the NFIP.

In addition to the 100-year floodplain, there is also a 500-year floodplain. A 500-year floodplain has a 0.2% (or 1 in 500) annual chance of flooding.

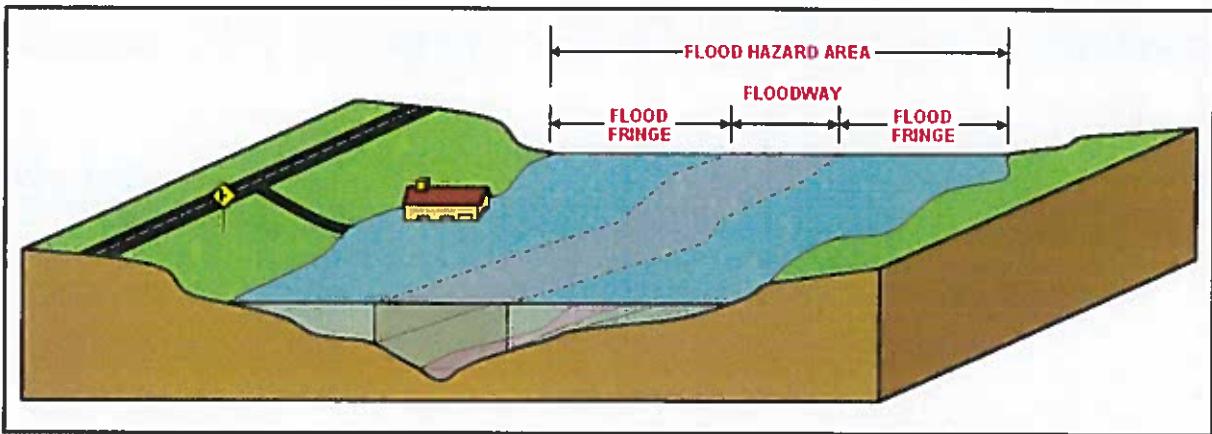
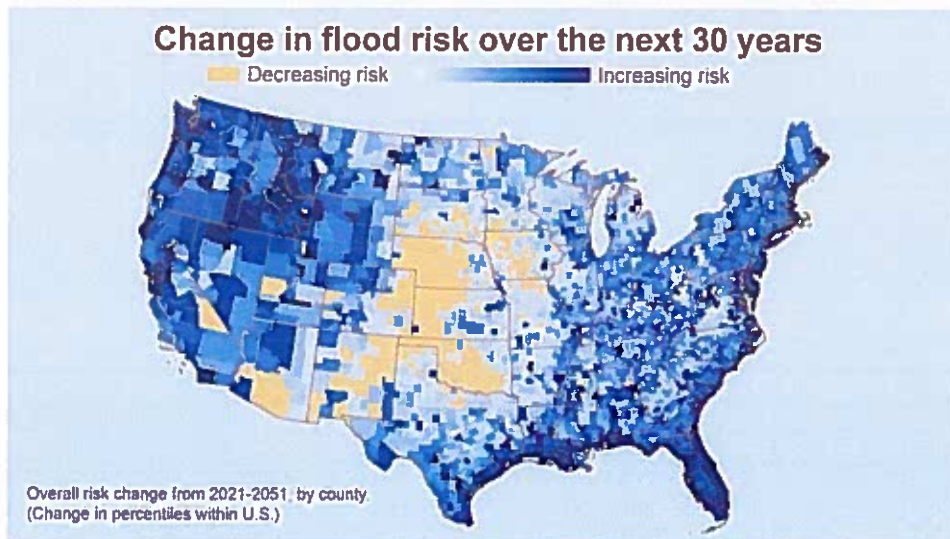


Figure 4 The Floodplain

While this seems like a very rare and unlikely occurrence, just as with the 100-year floodplain, these events are becoming more frequent worldwide. There are numerous reasons cited for the increasing frequency and severity of floods, namely global warming and increased impervious surface coverage. Together this increases sea levels and creates more runoff into waterways instead of absorption into natural areas.



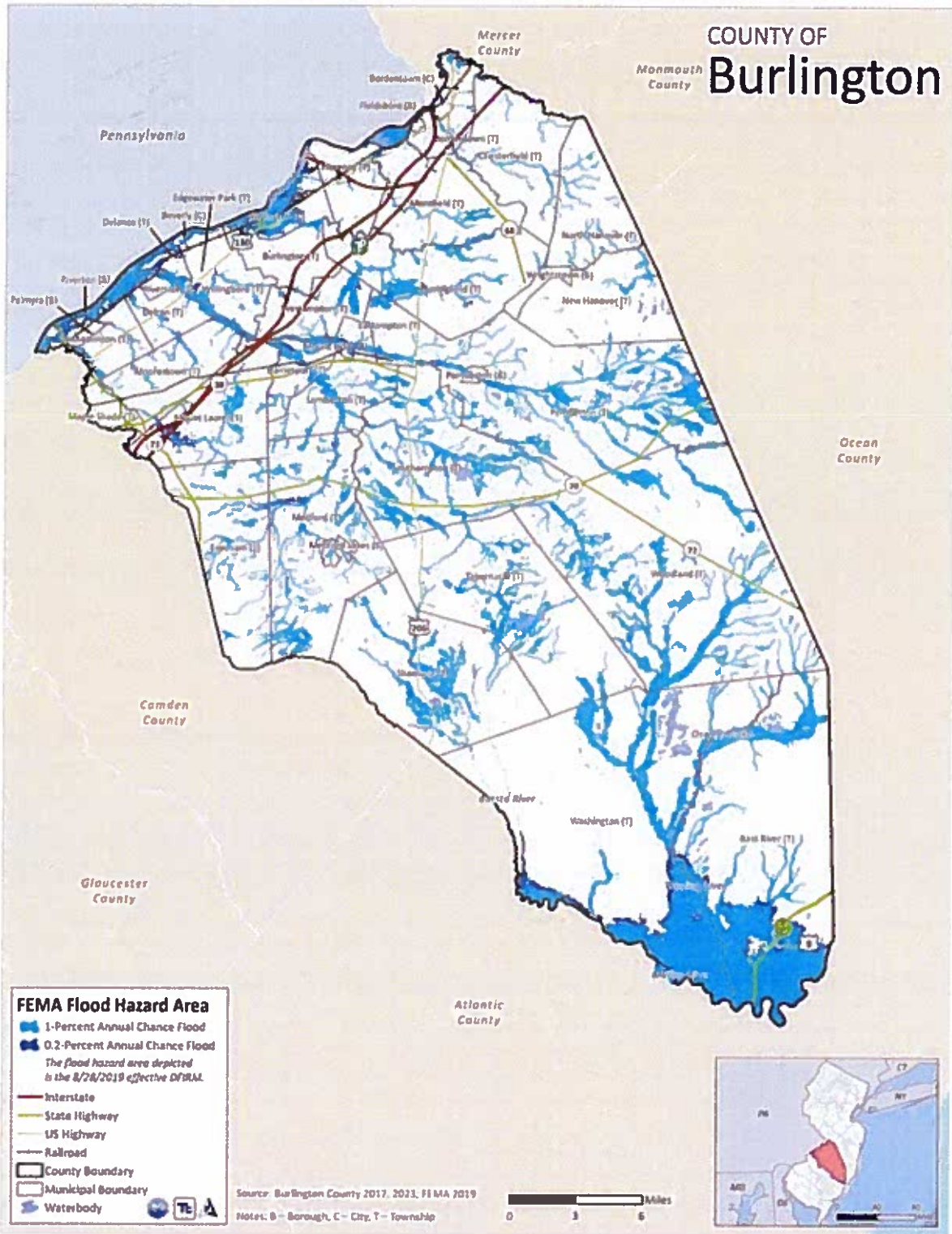


Figure 6 FEMA Flood Hazard Areas in Burlington county

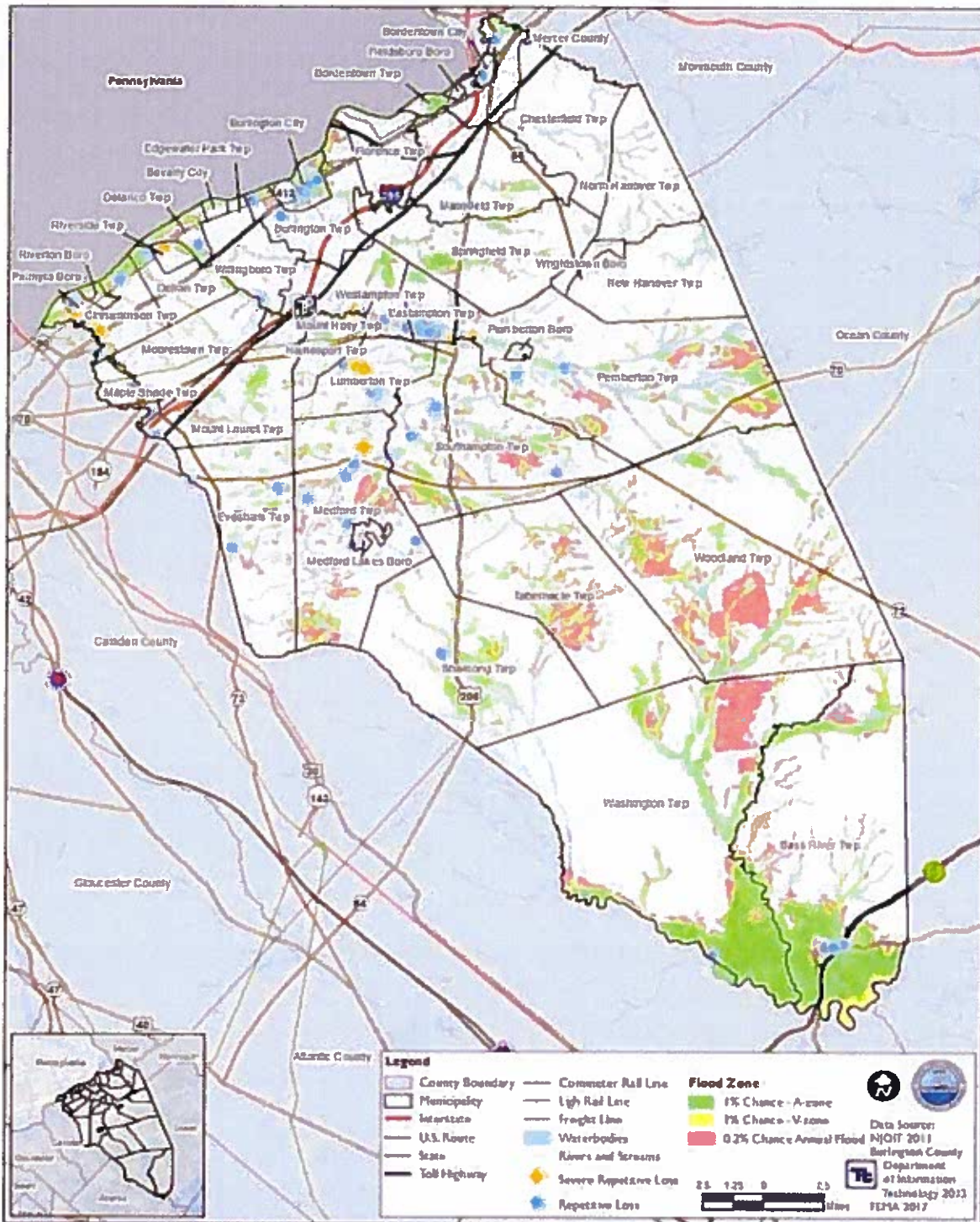


Figure 7 NFIP Repetitive and Severe Repetitive Loss Areas In Burlington County



Figure 8 Ewansville FEMA Flood Zones



Figure 9 Vincentown FEMA Flood Zones

Legends for Map

FIRM 2020 Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard

These graphics are sections taken from the FEMA Flood Insurance Rate Maps (FIRM), commonly referred to as "flood maps."

Figure 8, above, displays the North end of town where the North Branch of the Rancocas has had historic and repetitive flooding issues.

Figure 9, left, displays Vincentown where the South Branch of the Rancocas is slowed by a spillway before continuing down into Lumberton.

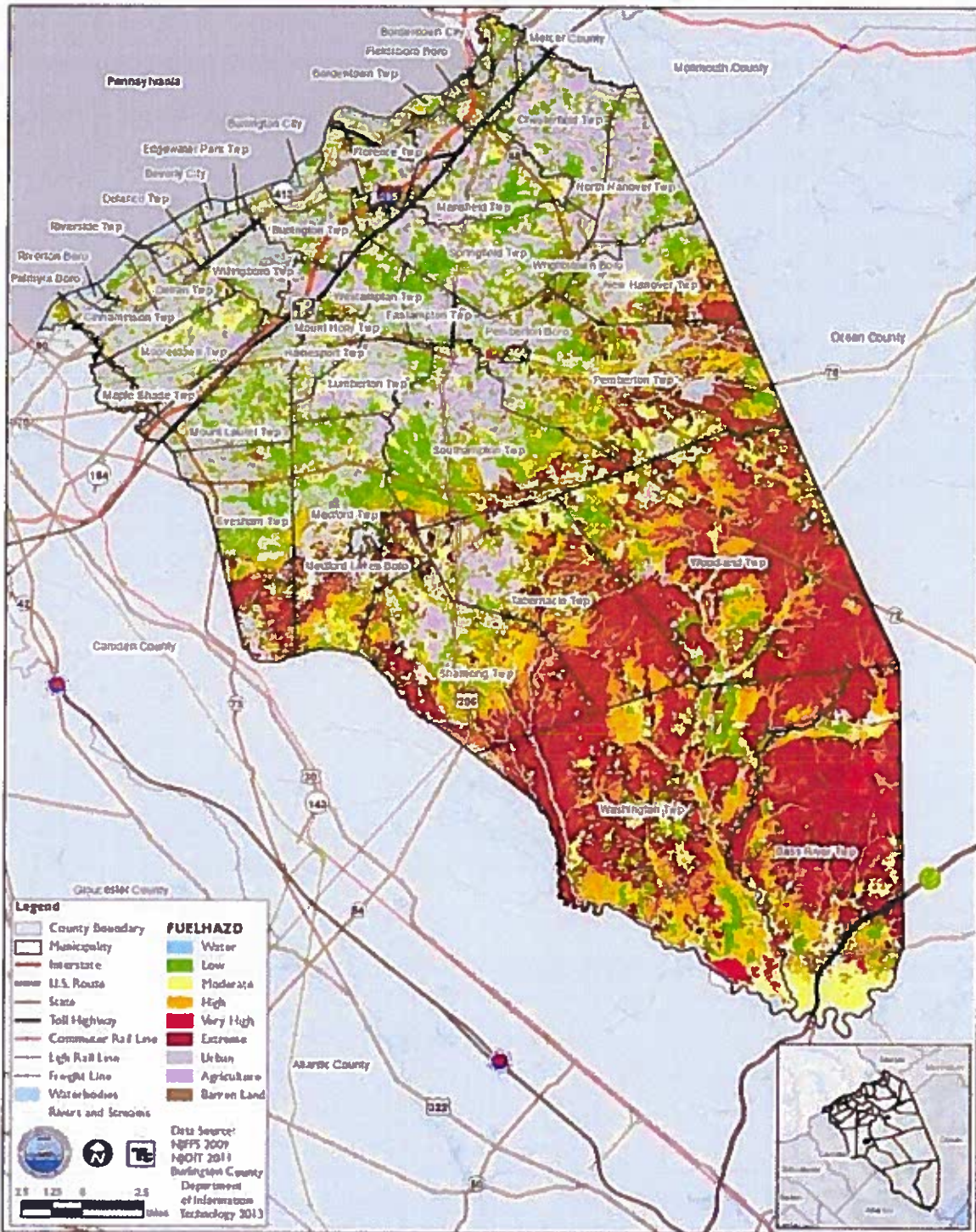


Figure 10 Burlington County Wildfire Fuel Hazard

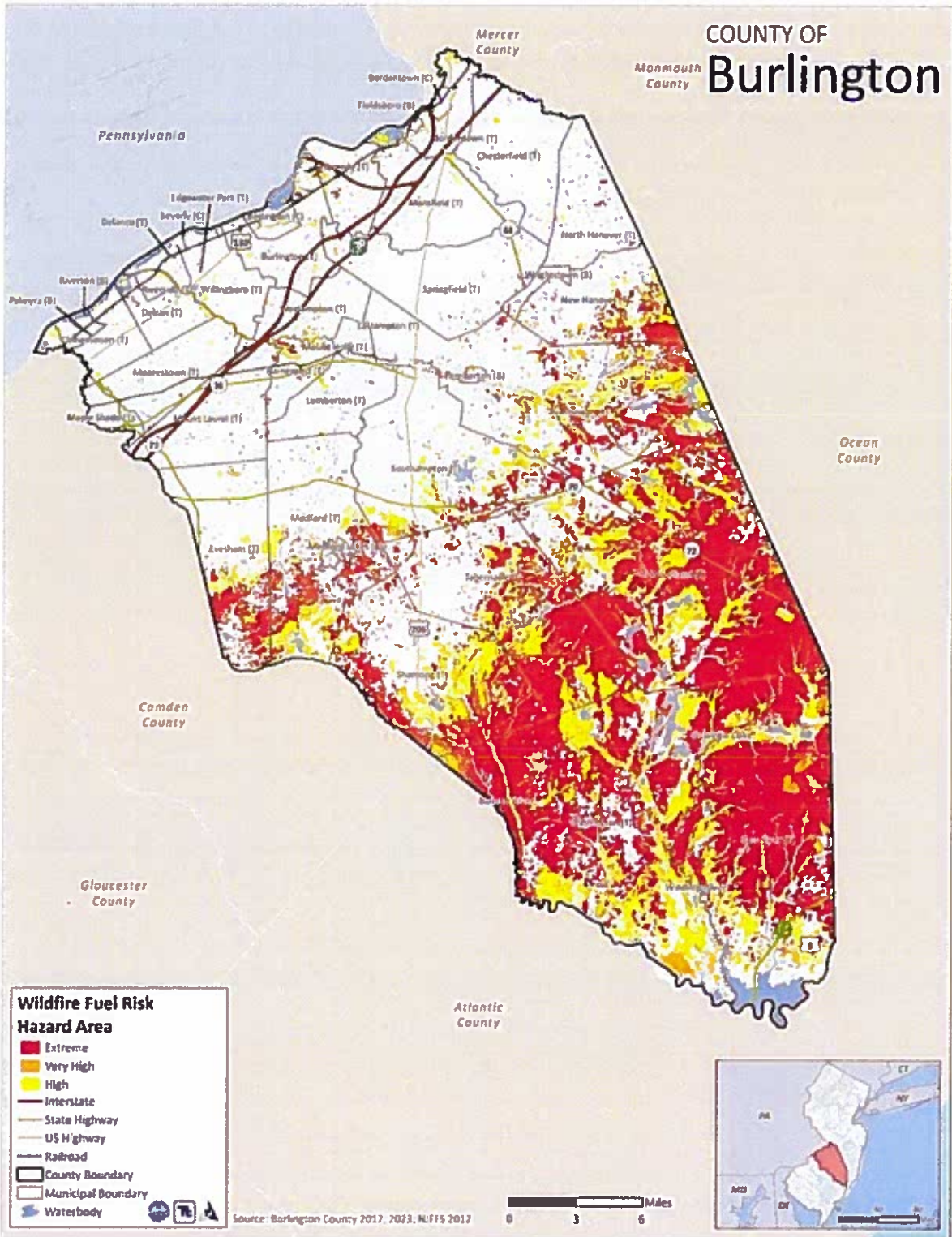


Figure 11 Burlington County Wildfire Risk

Fire Danger Rating and Color Code

Fire Danger Rating and Color Code	Description
Low (Green)	Fuels do not ignite readily from small firebrands although a more intense heat source, such as lightning, may start fires in duff or punky wood. Fires in open cured grasslands may burn freely a few hours after rain, but woods fires spread slowly by creeping or smoldering, and burn in irregular fingers. There is little danger of spotting.
Moderate (Blue)	Fires can start from most accidental causes, but with the exception of lightning fires in some areas, the number of starts is generally low. Fires in open cured grasslands will burn briskly and spread rapidly on windy days. Timber fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel, especially draped fuel, may burn hot. Short-distance spotting may occur, but is not persistent. Fires are not likely to become serious and control is relatively easy.
High (Yellow)	All fine dead fuels ignite readily and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and short-distance spotting is common. High-intensity burning may develop on slopes or in concentrations of fine fuels. Fires may become serious and their control difficult unless they are attacked successfully while small.
Very High (Orange)	Fires start easily from all causes and, immediately after ignition, spread rapidly and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high intensity characteristics such as long-distance spotting and fire whirlwinds when they burn into heavier fuels.
Extreme (Red)	Fires start quickly, spread furiously, and burn intensely. All fires are potentially serious. Development into high intensity burning will usually be faster and occur from smaller fires than in the very high fire danger class. Direct attack is rarely possible and may be dangerous except immediately after ignition. Fires that develop headway in heavy slash or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions the only effective and safe control action is on the flanks until the weather changes or the fuel supply lessens.

Vulnerable Populations

A vulnerable population is any group of individuals within a community whose needs may go unmet before or after a disaster event, including the elderly, people living in poverty, racial and ethnic minorities, people with disabilities, those suffering from chronic illness, and those with a language barrier. Additional social vulnerabilities can include renters, students, single-parent families, small business owners, culturally diverse groups, and historic neighborhoods.

A vulnerable population may include those with infrastructure type issues such as those with limited or no access to TV, internet, or phone service, those with limited or no access to transportation, those dependent upon powered medical equipment, well water, or all electric services.

It is vital that we identify vulnerable populations before a disaster occurs to better prepare to assist and plan for the special needs of each vulnerable population.

To identify vulnerable populations, we must make some generalizations using data points as we cannot specifically identify the needs of each resident in each household throughout the town.

One of these generalizations that can be made is that elderly residents will often also have other vulnerabilities such as disabilities, limited or low income, and mobility issues. LeisureTowne accounts for a large portion of our population and the highest concentration of elderly, low income, and disabled persons in our municipality.



Age

Southampton has an estimated population of 10,317 residents according to the 2020 census. Of those, 3,153 (30.6%) residents are over the age of 65. While this is not the largest population, it is the largest percentage of population over 65 in all of Burlington County and is nearly double the average for the County (16.9%).

LeisureTowne, with a population of approximately 3,209 persons, is comprised of 69% of residents being over the age of 65, according to the 2020 census. LeisureTowne is a retirement destination retirement community that draws in new residents from all over the area, many of which reside in the area for prolonged periods of time. This can lead to the high concentration of elderly, disabled, and vulnerable populations condensed into the small geographic footprint of the community.

This high concentration of residents over the age of 65 can be seen when looking at the figure below. It is important to note that while LeisureTowne does have the highest density of elderly people in the Township, it is not the only place where 65+ residents are found. Therefore, special considerations are needed to ensure that Southampton can assist in a speedy recovery for these residents.

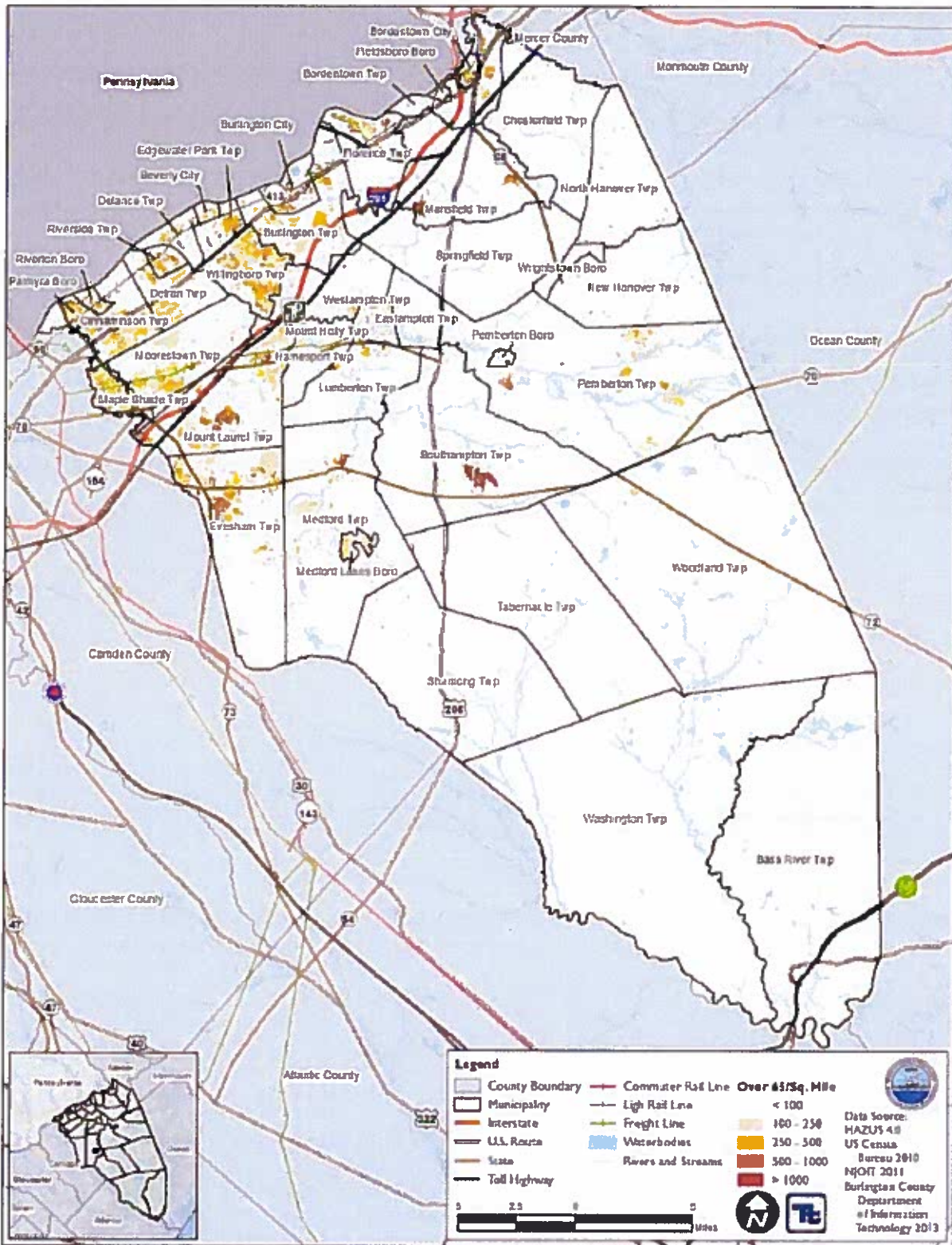


Figure 12 Population over age 65 in Burlington County
 Southampton Township
 Community Resilience Plan

Disability

When comparing Disabled and Functional Needs (DAFN) residents, the 2020 census places 9.8% of Southampton residents under the age of 65 as being with a disability.

The Census Bureau reports: “Overall, the American Community Survey (ACS) attempts to capture six aspects of disability: (hearing, vision, cognitive, ambulatory, self-care, and independent living); which can be used together to create an overall disability measure, or independently to identify populations with specific disability types.”

When we expand this group to all age ranges, the percentage of population with disabilities rises to an estimated 1,551 residents or 15% of the total population according to a 2022 Healthy Community Planning Report by the NJ Department of Health and Department of Environmental Protection. The figure below depicts the high concentration of disabled residents within LeisureTowne.

A large percentage of these disabled residents will need assistance from emergency crews in order to evacuate when a disaster strikes. This percentage is quite high when taking into consideration that Southampton has no Skilled Nursing Facilities, no assisted living facilities, and no long term care facilities. There are, as of the publication of this report, also 5 group homes for developmentally disabled persons throughout the community with each caring for approximately 5-10 residents at any given time.

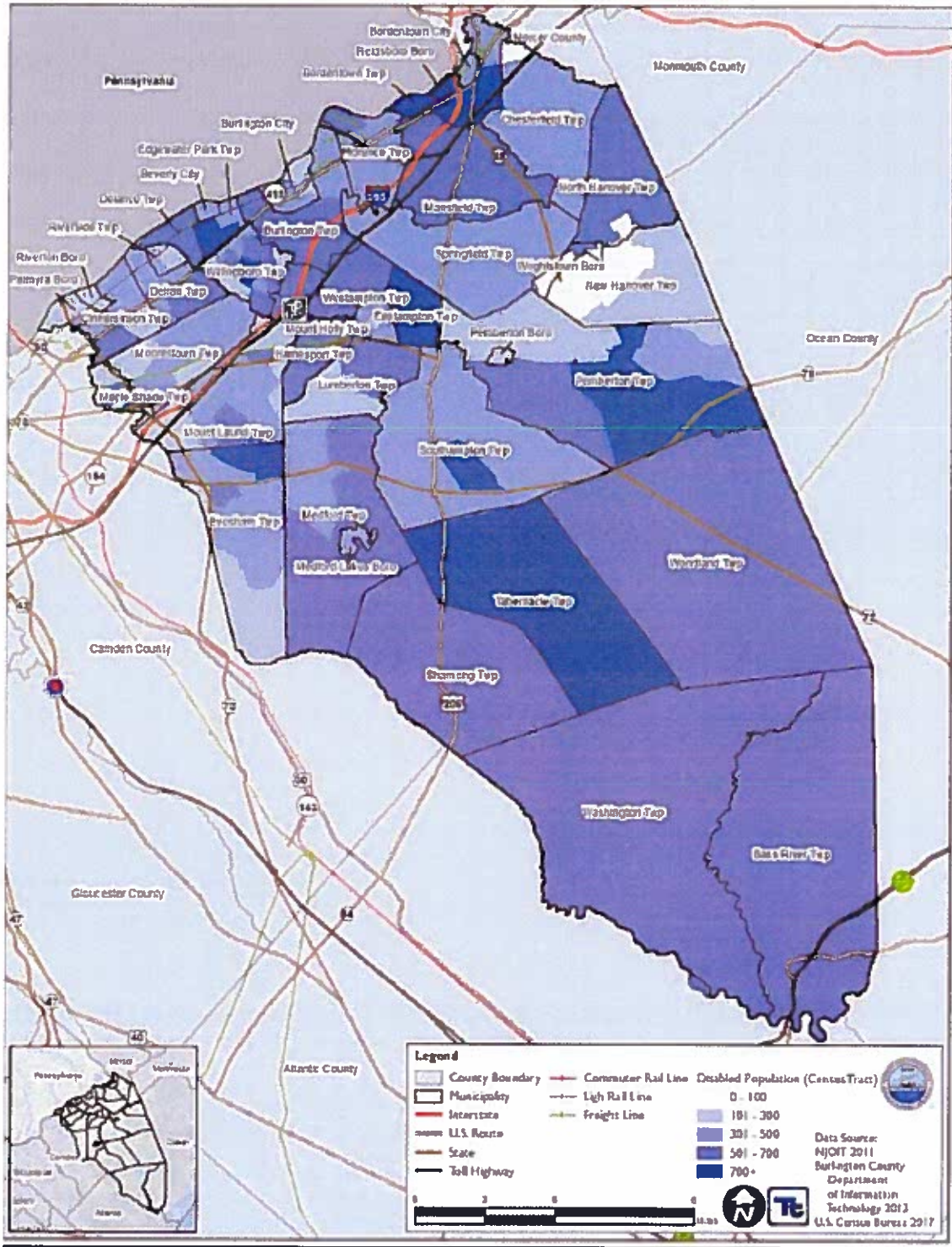


Figure 13 Population of Disabled Persons in Burlington County

Low Income

Southampton has an estimated population of 10,317 (according to the 2020 census). Of those, 1,509 (14.5%) are considered “low income” with a household income of less than \$20,000 annually being reported. This also places Southampton with the 2nd highest percentage of the population classified as low income within Burlington County.

There are an estimated 589 (5.7%) residents living below the poverty level, with an annual income of less than approximately \$15,000.

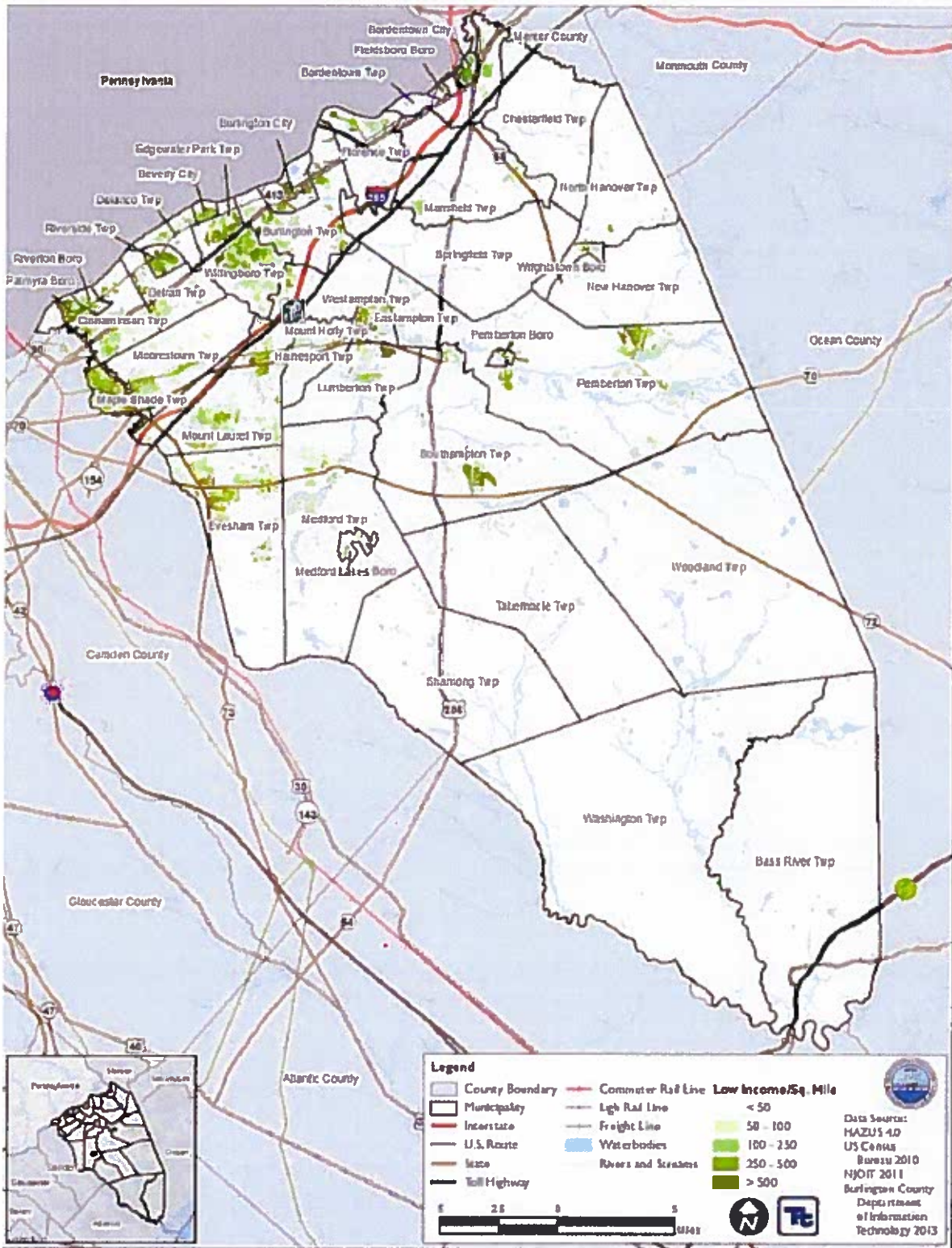


Figure 14 Population of Low Income in Burlington County

Defining the Hazards

During the community resiliency planning process, multiple hazards were looked at while determining where meaningful action could be taken.

The hazard levels are broken down into 3 categories: Routine, design, and extreme.

Routine – This hazard level is below the design level for the built environment and occurs more frequently. This event has a high probability of occurring (on the order of 50 % over a 50-year period). At this level, resilient buildings and infrastructure systems should remain functional and not experience any significant damage that would disrupt social functions in the community.

Design – This is the hazard level used in codes and standards for buildings, bridges, and similar physical infrastructure systems. Design-level events tend to have a probability of occurring on the order of 10 % over a 50-year period for ordinary structures.

Extreme – This hazard level exceeds the design level for the built environment. Extreme events have a small probability of occurrence, on the order of 2 % to 3 % over a 50-year period.

In some circumstances below, it was not possible or reasonable to strictly adhere to the definitions above and therefore the table below reflects the realistic hazard levels for each type.

Southampton Township, much like most of New Jersey can be affected by a multitude of natural or manmade hazard types. Some of the most common hazard types include winter/snowstorms, severe thunderstorms, rain, and flash flooding. Other hazard types may be rare but could be severe and include tornadoes, wildfire, hurricane, and heat or cold waves.

Outside of the natural hazards, there are always manmade hazards that could have an effect on the community including terrorism, cyber threats, and transportation accidents.

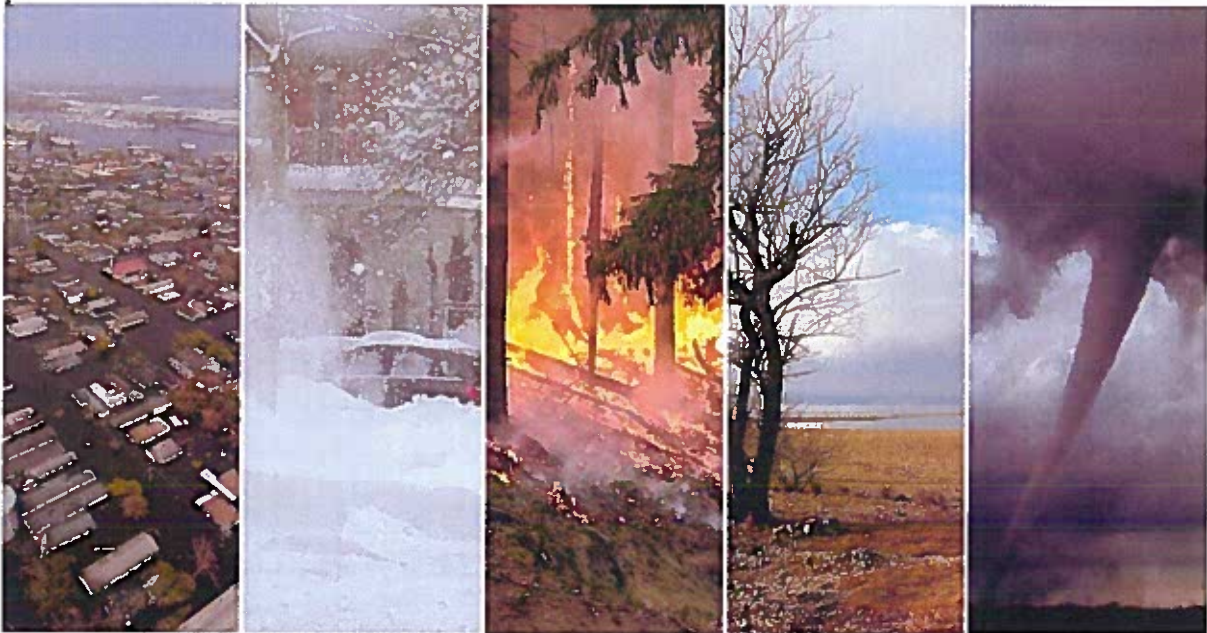
The table below identifies the hazard type and what each hazard level looks like.

Hazard Type	Routine	Design	Extreme
Snow/Winter Storm	<6 inches of snow	6-24 inches of snow	>24 inches of snow
Thunderstorms	Marginal and Slight	Enhanced	Moderate or High
Rain	>3 inches	3-6 inches	>6 inches
Flood - Riverine	10-year flood return	100-year flood return	>500-year flood return
Wind – Non-Hurricane	High Winds	Strong Winds	Derecho
Wind – Hurricane	N/A	Cat 1-2	Cat 3-5
Earthquake	N/A	Magnitude 1-4	Magnitude >5
Fire – Wildfire	Small brush fires	<100 acres	>100 acres
Fire – Urban	Fires in homes, business, or vehicles	Residential / Commercial Fires	Multi-structure fires
Drought	Drought Watch	Drought Warning	Drought Emergency
Tornado	N/A	EF-0 – EF-1	>=EF-2
Extreme Heat/Heatwave	Heat Index 80-90	Heat Index 90-105	Heat Index >105
Hail	Dime size or smaller	Nickel to Tennis Ball	Tennis Ball to Softball
Extreme Cold/Windchill	Below Freezing	Single Digits	Below 0

Many of the threats, such as tornadoes and earthquakes are extremely rare but have high potential for damage. There are mitigation efforts that can be put in place for such events, but when looking at the cost-benefit analysis, are not practical.

After reviewing the multiple hazards, it was decided that while there are many contenders, the main focus would be on flooding and wildfires.

Other hazards can still be addressed with or without this plan or added to future revisions of this plan.



Selecting the Hazards

Flooding was selected as it is a frequent event with a high risk to people and infrastructure. The future outlook of flooding would suggest that flooding will become even more commonplace and even more severe as the area continues to develop residential and commercial structures and impervious surfaces leading to increased runoff. This, in conjunction with debris and sediment in the creeks, illustrates a decrease in the natural ability of farmland and soil to absorb heavy/torrential rainfall events. Due to these reasons, and the history of severe flooding throughout Southampton Township, priority must be placed to address this worsening and devastating hazard.



Figure 165 Mill Street in Vincentown during 2019 flood

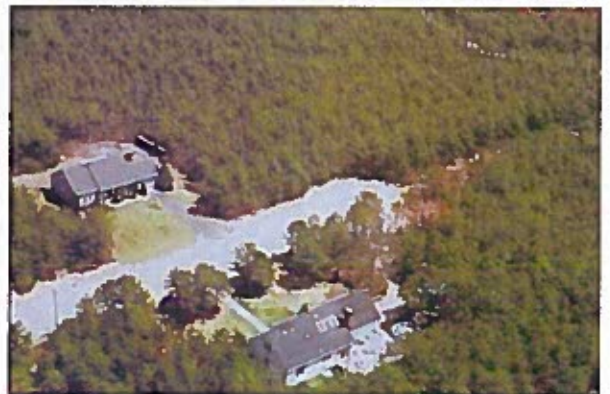


Figure 156 Allen's oil during 2004 flood

Wildfires are a common event within the Pinelands Preserve and throughout New Jersey. The number of wildfires within our municipality remains low but nearby wildfires can have dire health consequences to our residents due to heavy smoke conditions. With increases in development throughout the state and county, the Wildland Urban Interface (WUI) has become more and more developed. A wildfire has the potential to inflict mass numbers of casualties, widespread damage, and destruction of entire neighborhoods within a short period of time. This is to say, the frequency is low, but the impact potential is high. The issue is raised that our vulnerable populations, the elderly and disabled persons, will have difficulty evacuating from such a rapid threat. Due to these reasons, it is imperative to address this continued threat.



Figure 17 Wildland Urban Interface



Flooding

Southampton Township sits on two branches of the Rancocas Creek. The Rancocas Creek is a tributary of the Delaware River with a main stem of approximately 8.3 miles long and three branches, the North Branch, South Branch, and Southwest Branch. The North Branch is approximately 31 miles and drains over 167 square miles of water. The South Branch is approximately 21.7 miles and drains an area of over 144 square miles. The Southwest Branch is approximately 13.8 miles long and drains an area of approximately 55 square miles.

Southampton sits on the North Branch of the Rancocas creek as well as having the South Branch of the Rancocas run through Vincentown and over a spillway before continuing onto a confluence with the Southwest Branch of the Rancocas creek just before entering Lumberton Township.

With a land area of 28,027.8 acres, current estimates place 5,259.6 (18.8%) acres within the 1% Flood Event Hazard Area for Southampton Township and 5,346.7 (19.1%) acres are located within the 0.2% Flood Event Hazard Area. This ranks Southampton 16th highest within Burlington County, percentage wise. When we look at the total population of Southampton being estimated at 10,317 people, approximately 258 (2.5%) live within the 1% Hazard Area and 288 (2.8%) live within the 0.2% Hazard Area making Southampton tied for the 18th highest population in Flood Hazard Areas in Burlington County.



Figure 18 Residents Canoeing through Vincentown During the 2019 Flood

It is estimated that a 1% Flood Event could lead to approximately 374 displaced peoples throughout the Township due to flood waters, access, and power outages, and 51 persons seeking short-term sheltering.

In total, Southampton has approximately 50 National Flood Insurance Program (NFIP) insured homes, with 29 categorized as repetitive loss and 2 as severe repetitive loss properties. To date, there have been 156 flood claims resulting in \$3,218,832.22 in loss payments (\$20,633 of loss per claim on average). Within the 100-year flood plain are an estimated 141 buildings (2.6% of the total buildings in the Township) with a replacement cost of \$227,762,051 worth of potential dollar losses to structures and contents.

Within the 500-year flood plain are an estimated 156 buildings (2.9% of the total building in the Township) with a replacement cost of \$233,263,378 worth of potential dollar losses to structures and contents.



Figure 19 Southampton's Mayor and a resident wade through flood waters in Ewansville, 2019

These creeks have been subject to numerous flooding events in the Township in recent history, including in 2004, 2011, 2019 for the North Branch and additionally 2007 and 2014 for the South Branch. During the course of building this plan, in December 2023, an extended period of rainfall produced minor flooding throughout the community.

100- and 500-year floodplains Area, Population, and Building

100-year Floodplain				500-year flood plain			
Land Area (Acres)	Population	# of Buildings	Replacement Value	Land Area (Acres)	Population	# of Buildings	Replacement Value
5,259.6	258	141	\$227M	5,346.7	288	156	\$233M

Historic Floods in Southampton Township since 2000

Year	Cause(s)	Flooding Location(s)	Flood Level (Highest)
2004	~ 13 inches of rainfall leading to dam failures	North Branch, South Branch	1,000-year flood
2007	Nor-easter producing ~ 6 inches of rainfall	South Branch	50-year flood
2011	Hurricane Irene producing between 5-8 inches of rainfall	North Branch, South Branch	100-year flood
2014	~ 6 inches of rainfall	South Branch	30-year flood
2019	~ 5 inches of rainfall	North Branch, South Branch	100-year flood



Figure 220: Race Street during the 2004 floods



Figure 201: Water rescue during the 2007 flood



Figure 212: Resident walking through Vincentown during the 2011 flood

Wildfire

With a majority of the community being protected pinelands, there is an abundance of natural fuel and opportunity for wildfires. Burlington County and the Pinelands region has been subjected to many wildfires throughout the years, varying in size and intensity.

Southampton has experienced 1 wildfire in the past 10 years but Burlington County has experienced 10 from 2013-2018. 2023 was the worst wildfire year in over a decade 1,034 wildfires burning 17,979 acres across the state between January 1st and September 21st. This included 14 “major wildfires” where 100 or more acres burned. Of those, 7 were within Burlington County.



From 1950 to 2015, Burlington County has experienced 924 wildfire events for an average annual rate of 13.59 wildfires per year. The probability of a wildfire event in Burlington County in any given year is approximately 52.54 with a recurrence interval (in years) of 1.90.



Southampton Township has 28,446 acres, of which 5,496 (19.3%) acres are categorized as “High to Extreme” Wildfire Fuel Hazard Rating by the New Jersey Forest Fire Service (NJFFS), ranking 10th highest in the County, percentage wise. Another 14,630 (51.4%) acres are categorized as “Low to Moderate” accounting for a total of 20,126 (70.7%) acres within a risk area.

Within the high, very high, and extreme rated areas, Southampton has a population of approximately 1,626 (15.5%) persons with another 3,849 (36.8%) persons in the low and moderate zones. This accounts for approximately 5,475 (52.3%) persons within a wildfire hazard area throughout the Township.

The financial impact of a wildfire is also tremendous with an estimated 110 (2%) of structures located within the high, very high, and extreme hazard areas. These structures and their contents account for an estimated \$120,593,923 of replacement cost. When you include the structures and contents of the low and moderate hazard zones, that adds another 2,611 (32.7%) and \$2,087,376,458 of replacement cost. In all, Southampton has an estimated 5,368 buildings in the township with a total replacement cost of all structures and contents being approximately \$4,593,018,255 (\$855,629 per building on average).



Evaluating Buildings and Infrastructure

When thinking about how to measure community resilience, we followed the NIST approach of developing performance goals tables.

The performance tables below examine recovery “gaps” in buildings and infrastructure clusters throughout the community. First, buildings and infrastructure are grouped into clusters (e.g., categories of buildings that serve the same purpose, such as residential housing or retail). Then for each of these clusters, we then determine the difference between the desired recovery time vs. the anticipated recovery time.

To identify the gap, we must determine the “anticipated recovery” of a building cluster by estimating the restoration level based on a specific hazard type and level. The question is simple, “how long do we *think* a building cluster will take to recover from the hazard?” The answer, of course, is only an estimate.

After the anticipated recovery is determined for any building cluster, the question is then posed, “what timeframe do we *want* for each building cluster to recover?” This answer becomes our “desired performance.” The desired performance is broken down into three restoration levels, minimal (30%), functional (60%), and operational (90%).

Determining the difference between the anticipated recovery from a disaster and the desired recovery from a disaster gives identifies the “gap.”

It is important to determine if there is a gap, how big the gap is and why the gap exists. The process must include a realistic look at what is acceptable. It would be easy to say that we desire to recover from all disasters within a week, however that is not realistic.

The largest gap may be the most noticeable. That does not necessarily correlate to be the most important gap, however. A brief example would be that a small gap in public safety may be more important to focus on than a large gap in recreation.

If a gap is considered unacceptable, then plans must be established to reduce the delay in recovery to an acceptable level.

In this document, we included only some of the performance tables that were developed for this plan. The performance goals table for buildings are included but other tables were completed for transportation, energy, communications, water, and wastewater and not included. The performance tables below look at flooding and wildfire specifically with various hazard levels.

Performance Goals Legend

30%	<i>Minimal:</i> 30% of cluster/infrastructure system is functional – minimum number of facilities needed to initiate the minimum functions and services required of a cluster/infrastructure system.
60%	<i>Functional:</i> 60% of cluster/infrastructure system is functional – minimum number of facilities to meet the usual operations (functions and services) of a cluster/infrastructure system.
90%	<i>Operational:</i> 90% of cluster/infrastructure system is functional – minimum number of facilities needed to declare that the cluster/infrastructure system is operating at normal capacity
X	<i>Anticipated performance for operational function - 90 % cluster is functional for existing buildings and infrastructure systems</i>
V	<i>Vulnerable Population Operational:</i> 90% of cluster/infrastructure system is functional – minimum number of facilities needed to declare that the cluster/infrastructure system is operating at normal capacity. This may differ from the rest of the community due to some of the challenges faced by vulnerable populations, including economic, social, and financial disparities

Disturbance ¹	
Hazard Type	Flood
Hazard Level	Design
Affected Area	Regional
Disruption Level	Moderate

Restoration Levels ^{2,3}	
30%	Minimal
60%	Functional
90%	Operational
X	Anticipated Performance

Building Clusters	Support Needed ⁴	Design Hazard Performance											
		Phase 1: Short-Term			Phase 2: Intermediate				Phase 3: Long-Term				
		Days			Weeks				Months				
		0	1	1-3	1-4	4-8	8-12	4	4-24	24+			
Critical Facilities													
Government		X											
Emergency Services/Public Safety		X											
Child Care													
Education/Schools		X											
Child Care Centers		X											
Medical (Non-Emergency)													
Medical Offices		X											
Animal Care													
Shelters		X											
Veterinary		X											
Retail													
Critical Retail		X											
Community Organizations													
Civil Organizations		X											
Churches				30%		60%		90%		X			
Housing													
Residential Housing Neighborhoods													
Group Homes		X		30%		90%		90%		X			V
Hotels and Motels (Temp. residences)		X											
Emergency Housing and Services (Temp. Shelter)		X											
Community Recovery													
Business - Manufacturing		X											
Business - Commodity Services		X											
Business - Service Professions		X											
Recreation		X											

Disturbance ¹		Restoration Levels ^{2,3}			
Hazard Type	Flood	30%	60%	90%	Anticipated Performance
Hazard Level	Extreme	Minimal	Functional	Operational	
Affected Area	Regional				
Disruption Level	Severe	X			V

Support Needed ⁴	Phase 1: Short-Term			Phase 2: Intermediate			Phase 3: Long-Term		
	Days			Weeks			Months		
	0	1-3	1-4	4-8	8-12	4	4-24	24+	

Building Clusters	Support Needed ⁴	Design Hazard Performance								
		Phase 1: Short-Term			Phase 2: Intermediate			Phase 3: Long-Term		
		0	1-3	1-4	4-8	8-12	4	4-24	24+	
Critical Facilities										
Government		X								
Emergency Services/Public Safety		90%	X							
Child Care										
Education/Schools		X								
Child Care Centers		X								
Medical (Non-Emergency)										
Medical Offices		X								
Animal Care										
Shelters		X								
Veterinary		X								
Retail										
Critical Retail		X								
Community Organizations										
Civil Organizations		X								
Churches				30%	60%	90%			X	
Housing										
Residential Housing Neighborhoods				30%	60%	90%			X	V
Group Homes		X								
Hotels and Motels (Temp. residences)		X								
Emergency Housing and Services (Temp. Shelter)		X								
Community Recovery										
Business - Manufacturing		X								
Business - Commodity Services		60%	90%	X						
Business - Service Professions		90%	X							
Recreation		X								

Disturbance ¹	
Hazard Type	Wildfire
Hazard Level	Extreme
Affected Area	Regional
Disruption Level	Moderate

Restoration Levels ^{2,3}				
30%	Minimal			M
60%	Functional			F
90%	Operational			O
X	Anticipated Performance			V

Building Clusters	Support Needed ⁴	Design Hazard Performance													
		Phase 1: Short-Term			Phase 2: Intermediate			Phase 3: Long-Term							
		Days			Weeks			Months							
		0	1-3	1-4	4-8	8-12	4	4-24	24+						
Critical Facilities															
Government		X													
Emergency Services/Public Safety		X													
Child Care															
Education/Schools		X													
Child Care Centers		X													
Medical (Non-Emergency)															
Medical Offices		X													
Animal Care															
Shelters		X													
Veterinary		X													
Retail															
Critical Retail		X													
Community Organizations															
Civil Organizations		X													
Churches									30%	60%		90%		X	
Housing															
Residential Housing Neighborhoods			30%										90%		X
Group Homes		X													
Hotels and Motels (Temp. residences)		X													
Emergency Housing and Services (Temp. Shelter)		X													
Community Recovery															
Business - Manufacturing		X													
Business - Commodity Services		X													
Business - Service Professions		X													
Recreation		X													

3. Recommend Actions to Improve Community Resilience

This section lays out the recommendations of steps for Southampton Township to take to become more resilient. For each recommendation, there are specific actions that are proposed by the Southampton Township planning team. While the recommendations were prioritized based on the judgment of the planning team, implementation does not necessarily have to follow this order as there are some that may be considered “low hanging fruit” while others may take longer due to external factors such as the need for funding or partners.

Goals/Policies and Actions/Projects

Recommendation: Look for opportunities to support vulnerable populations in case of a wildfire

Action: Develop evacuation and recovery plan for LeisureTowne

Action: Test plans to understand challenges with temporary shelter, especially for those with special needs/accommodations.

Background: Southampton Township has a uniquely high percentage of residents that are over 65 years of age, have health issues, and are located in areas with risk of wildfire. This is due in large part to LeisureTowne, but there are other neighborhoods that could be impacted as well. While structures burning is a concern, even when nearby wildfires do not impact buildings, they may make these areas unlivable due to large amounts of smoke.

Potential Funding Sources: [BRIC](#), [HMGP Post Fire](#), [FMAG](#)

Recommendation: Identify ways to protect housing in FEMA floodplain

Action: Engage Blue Acres program state to see if land purchased on East/West Mae St. can be used to build flood protection, or water storage.

Action: Engage vulnerable populations in floodplains to understand how township can help them recover from floods quicker

Action: Develop recreational area that can double as either flood protection or can be flooded with limited impact/damage (e.g., sunken parks, raised trails)

Action: Develop education program on what NFIP does to eliminate confusion of residents. Require that anyone buying a property in floodplain completes education program.

Action: Explore options and feasibility to raise the grade of roadways in flood prone areas.

Action: Explore mitigation efforts to prevent flooding from pump station

Background: Southampton Township is one of many flood prone communities throughout the State. There are two main areas of concern, Ewingsville and Vincentown Village, who both experience frequent flooding and where multiple structures have been deemed as “repetitive loss” structures.

Potential Funding Sources: [BRIC](#), [FMA](#), [HMGP](#)

Recommendation: Ensure critical facilities/infrastructure are operational following flooding/wildfire

Action: Build vegetated berm barrier to protect Allen's Oil and Propane

Action: Ensure oil and propane tanks are relocated from floodplain or adequately protected from floodwaters

Background: Southampton Township has critical facilities that are located within hazard prone areas of the community and risk operational readiness in case of an emergency.

Potential Funding Sources: [BRIC](#), [FMA](#), [HMGP](#), [SEP](#)

Recommendation: Ensure critical functions remain operational during a flood or wildfire.

Action: Identify and document back-up facilities for fire stations and EMS

Action: Test relocation to back-up facilities annually.

Background: Southampton Township has critical facilities that are located within hazard prone areas of the community and risk operational readiness in case of an emergency.

Potential Funding Sources: [BRIC](#)

Recommendation: Continue communications and engagement with stakeholders and the public, prior to, during, and after disruptions, including during long term recovery.

Action: Continue to deliver pre-incident advanced warning to stakeholders, Township personnel, and the public through various means of communication including email, social media, Nixle, and CivicReady platforms.

Action: Continue to deliver incident updates to stakeholders and the public during the disaster and throughout the recovery process.

Action: Conduct resilience related public education to include information presented to the public through Nixle and CivicReady, emails, lectures, social media, mailers, and more.

Background: Southampton Township communicates advanced warning notification and updates to stakeholders via email, social media, Nixle, and CivicReady. These efforts have improved situational awareness on all levels and rebuilt trust in the municipality by illustrating vigilance.

Potential Funding Sources: N/A

Tracking Future Progress

Every two years, the Local Emergency Management Council will review this plan and update any progress made on action. This plan should be formally updated at least every 5 years. The responsibility of updating and tracking progress will fall to the OEM Coordination and the Local Emergency Management Council.

Action	Not Initiated	Initiated	Underway	Complete	Ongoing	Notes on Progress
Recommendation #1: Look for opportunities to support vulnerable populations in case of a wildfire						
Develop evacuation and recovery plan for Leisure Towne	X					
Test plans to understand challenges with temporary shelter, especially for those with special needs/accommodations.	X					
Recommendation #2: Identify ways to protect housing in FEMA floodplain						
Engage Blue Acres program state to see if land purchased on East/West Mae St. can be used to build flood protection, or water storage.	X					
Engage vulnerable populations in floodplains to understand how township can help them recover from floods quicker	X					
Develop recreational area that can double as either flood protection or can be flooded with limited impact/damage (e.g., sunken parks, raised trails)	X					
Develop education program on what NFIP does to eliminate confusion of residents. Require that anyone buying a property in floodplain completes education program.	X					
Explore options and feasibility to raise the grade of roadways in flood prone areas.	X					
Explore mitigation efforts to prevent flooding from pump station.	X					

Action	Not Initiated	Initiated	Underway	Complete	Ongoing	Notes on Progress
Recommendation #3: Ensure critical facilities/infrastructure are operational following flooding/wildfire						
Build vegetated berm barrier to protect Allen's Oil and Propane	X					
Ensure oil and propane tanks are relocated from floodplain or adequately protected from floodwaters	X					
Recommendation #4: Ensure critical functions remain operational during a flood or wildfire.						
Identify and document back-up facilities for fire stations and EMS	X					
Test relocation to back-up facilities annually.	X					
Recommendation #5: Continue communications and engagement with stakeholders and the public, prior to, during, and after disruptions, including during long term recovery.						
Continue to deliver pre-incident advanced warning to stakeholders, Township personnel, and the public through various means of communication including email, social media, Nixle, and CivicReady platforms.					X	
Continue to deliver incident updates to stakeholders and the public during the disaster and throughout the recovery process					X	
Conduct resilience related public education to include information presented to the public through Nixle and CivicReady, emails, lectures, social media, mailers, and more.		X				