45 – SHREWSBURY BOROUGH

PLANNING TEAM AND PARTICIPATION

Name	Title	Participation
Jerzy Chojnacki	**OEM Coordinator**	**Point of Contact, Municipal Workshops #1 and #2**
David Cranmer	Borough Engineer	Reviewed and consulted on final plan
Chris Cherbini	Borough Administrator	Provided capability assessment

COMMUNITY PROFILE

Overview

The Borough of Shrewsbury was formed in 1926 from portions of the Township of Shrewsbury and encompasses 2.3 square miles. Although predominantly a residential community, the Borough has many retail establishments along State Highway 35, most notable "The Grove at Shrewsbury," a large upscale retail center that opened its doors to Monmouth County residents in 1988. It features open-air shopping and dining establishments set in a park-like atmosphere. It was the one of the first shopping centers of its kind in the country.

The Borough adopted a Municipal Stormwater Management Plan in 2018 that outlines its strategy to address stormwater-related impacts, such as groundwater recharge, and stormwater quality and quantity, by incorporating stormwater design and performance standards for new major development.

Land Use, Development, & Growth

In Shrewsbury, residential and public land together constitute a large significant portion of its area. As a result, in 2020, urban or developed land made up nearly 80 percent of the Borough's total area.

Between 2015 and 2020, the community did not experience any significant changes in its land use; its developed land hovered at roughly 81 percent of its total area, while its wetlands made up 16 percent of the land base.

Land Use Type	Total Acres (2015)	Total Acres (2020)	Percent Change
Agriculture	4.5	4.5	>0%
Barren Land	0.0	0.0	>0%
Forest	29.2	24.0	-18%
Urban	1111.8	1119.1	1%
Water	17.3	17.5	1%
Wetlands	230.5	228.2	-1%

Source: NJDEP Land Use/Land Cover data, 2015-2020

Recent Major Development and Infrastructure from 2020 to Present

There was an addition to Shrewsbury Borough Primary School.

Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years

Affordable housing developments, including possible approval of transformation of existing office space into residential units.

Demographics & Vulnerable Populations

This plan analyzed census-derived data on population trends and population age distributions to help illustrate potential vulnerability within the borough. A population increase or decrease can illustrate potential hazard vulnerability through

development pressures on the built environment, or through physical and social impacts of marked population loss. A community with a large share of population under age five may indicate vulnerabilities in hazard response, resource allocation, and evacuation – FEMA identifies that the pediatric population is disproportionately affected during disasters, and requires special consideration in categories of anatomy and physiology, psychological, and education vulnerabilities (FEMA, 2022, NLM, 2022). Individuals over age 65 are a growing share of the country's population and often represent the greatest share of deaths from extreme weather events and other natural disasters. A larger share of population over 65 may indicate local vulnerabilities to hazard events both before and after a disaster occurs – these populations may have mobility needs, uneven access to resources, and limited social networks that makes pre-disaster engagement challenging (FEMA, 2023).

Shrewsbury Borough has a total estimated population of 4,138, of which an estimated 10% are under age 5 and 21.4% are over age 65. The Borough saw moderate population growth of an estimated 2.1% over the recent ACS survey periods of 2013-2017 and 2018-2022. With an aging population making up over twenty percent of their total community, Shrewsbury may focus hazard mitigation efforts on those with robust messaging and engagement for older residents, evacuation plans inclusive of populations with mobility issues, and resilient networks for resource accessibility post-disaster.

There are no areas of the Borough of Shrewsbury which have been identified by CDRZ, CEJST, or OBC designation criteria.

Demographics Summary	
Total Population *(2018-2022 ACS 5-year Estimates)*	4,138
Population Change since 2017	2.1%
Percent of Population Age < 5	10.0%
Percent of Population > 65	21.4%

Source: 2018-2022 ACS 5-Year Estimates, 2013-2017 ACS 5-Year Estimates

HAZARD IDENTIFICATION

One of the first steps in developing a risk assessment is for participating municipalities to review and prioritize the hazards that can affect them. This was done based on how often a hazard has occurred, how significant effects have been in the past, the difficulty and cost of recovering from such events. Jurisdictions ranked the list of hazards as either high, medium, low, or no concern. The following include the Borough's hazard ranking. The full risk assessment for each hazard is located in Section 4.0.

Hazard Ranking

High	Medium	Low
	Natural Hazards	
Nor'easter	Extreme Temperatures	Lightning
Flood	Extreme Wind	Drought
Hurricane/ Tropical Storm	Storm Surge	Landslide
	Tornado	Earthquake
	Winter Storm	Lightning
	Wildfire	
	Human-made Hazards	
	Cyber Attack	Civil Unrest
	Terrorism	Power Failure
	Pandemic	Economic Disruption

Hazard Ranking Explanation

The hazard rankings for Shrewsbury Borough have remained consistent since the previous plan update, indicating that the frequency, severity, and impact of hazards have not significantly changed. High-priority hazards include Nor'easters, floods, and hurricanes, while medium-priority hazards such as extreme temperatures and drought are monitored closely.

Significant Hazard Events Since Last Plan Update

Since the last plan update, Shrewsbury Borough has experienced localized flooding primarily affecting basements, although most of the Borough remains outside the designated flood zone. This highlights the importance of maintaining and improving drainage infrastructure to mitigate future risks.

Climate Change Impacts on Extent and Magnitude of Hazards

Climate change is expected to significantly impact the risks and hazards faced by the Borough of Shrewsbury. Rising temperatures and shifting precipitation patterns will likely increase the frequency and intensity of extreme weather events such as Nor'easters, hurricanes, and heavy rainfall. This will exacerbate existing flooding issues, particularly in areas adjacent to the tributaries of the Shrewsbury River, which already lie within the 1% and 0.2% annual chance flood zones. The increased flooding risk will necessitate more robust flood management and mitigation strategies to protect residential properties, critical infrastructure, and community lifelines.

Additionally, rising sea levels will contribute to higher water tables and more frequent coastal flooding, even in areas currently outside designated flood zones. This will increase the vulnerability of the built environment and may lead to more frequent basement flooding and damage to properties previously considered safe. The Borough will need to invest in infrastructure upgrades, such as improved drainage systems and flood barriers, to mitigate these risks. By proactively addressing these challenges, Shrewsbury can better protect its residents and infrastructure from the adverse effects of climate change.

RISK ASSESSMENT

National Flood Insurance Program (NFIP) statistics

Shrewsbury Borough	
Initial FIRM Date	8/1/79
Effective FIRM Date	6/20/2018
Number of Policies In-Force:	31
Total Losses:	10
Total Payments:	$116,816.15
Number of RL Properties:	1
Number of Mitigated RL Properties:	0
RL – Total Losses:	2
RL – Total Paid:	$5,627.78
Number of SRL Properties:	0
Number of Mitigated SRL Properties:	0
SRL – Total Losses:	0
SRL – Total Paid:	$0

Source: FEMA Policy and Loss Data, August 2024

Vulnerability of the Built Environment

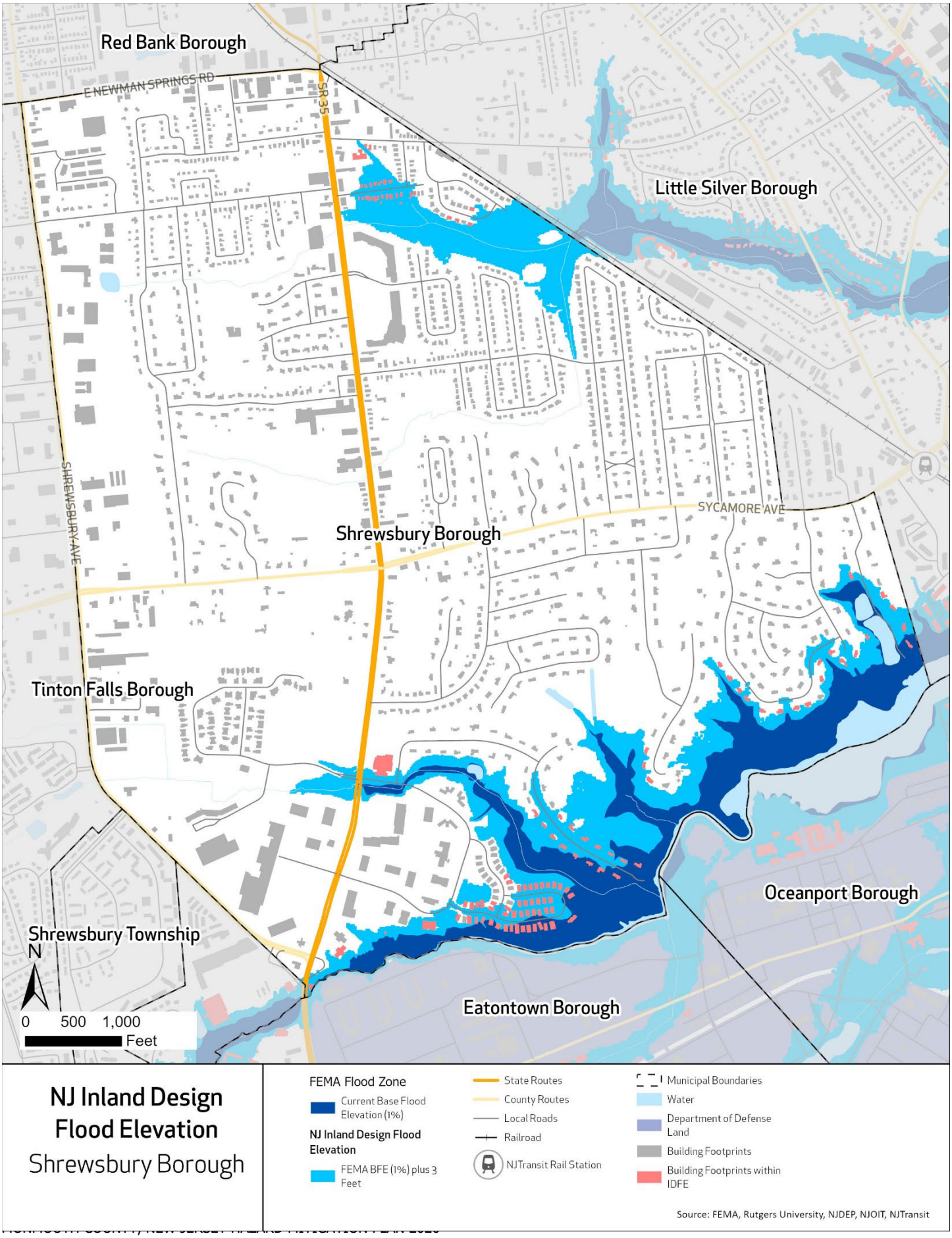
The Special Flood Hazard Area (SFHA) in the Shrewsbury Borough is primarily located adjacent to the tributaries of the Shrewsbury River which flow through the town. Approximately 6.6 percent of the total area of Shrewsbury Borough lies within the 1% annual chance flood zone as defined by FEMA. An additional 9.8 percent of the area of the municipality is in the 0.2% annual chance flood zone.

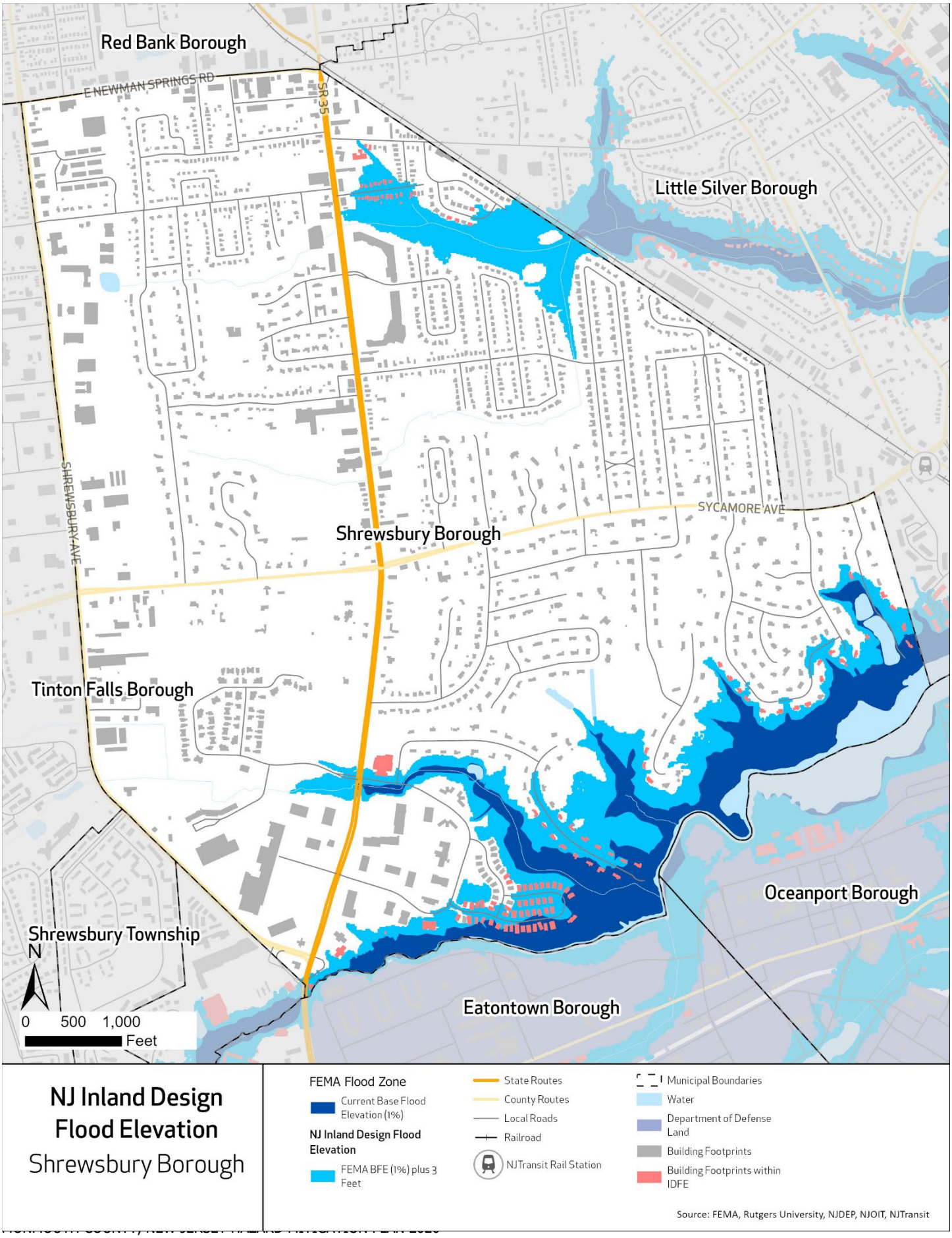
About 85.3 percent of Shrewsbury Borough is considered developed. Of the developed parcels of the town, 3.6 percent fall within the 1% annual chance flood zone and 6.6 percent are within the 0.2% annual chance flood zone. This illustrates that development in the municipality has generally occurred in areas that are less prone to flooding.

	Percentage in the 1% Floodplain	Percentage in the 0.2% Floodplain	5 feet of Sea Level Rise
Developed Parcels	3.7%	6.7%	NA
Exposed Land Area	6.6%	9.8%	NA

During the planning process, Shrewsbury Borough identified critical facilities which function as community lifelines. These facilities provide the most fundamental services in the community that, when stabilized, enable all other aspects of society to function. The municipality identified 10 total facilities. Of these facilities, none are within the floodplain.

	Number in the 1% Floodplain	Number in the 0.2% Floodplain	Number within 5 feet of Sea Level Rise
Community Lifelines and Critical Facilities	-	-	NA


Red Bank Borough
E NEWMAN SPRINGS RD
SR 35
Little Silver Borough
SHREWSBURY AVE
SYCAMORE AVE
Shrewsbury Borough
Tinton Falls Borough
Oceanport Borough
Shrewsbury Township
Eatontown Borough
N
0 500 1,000
Feet
NJ Inland Design Flood Elevation
Shrewsbury Borough
FEMA Flood Zone
Current Base Flood Elevation (1%)
NJ Inland Design Flood Elevation
FEMA BFE (1%) plus 3 Feet
State Routes
County Routes
Local Roads
Railroad
NJTransit Rail Station
Municipal Boundaries
Water
Department of Defense Land
Building Footprints
Building Footprints within IDFE
Source: FEMA, Rutgers University, NJDEP, NJOIT, NJTransit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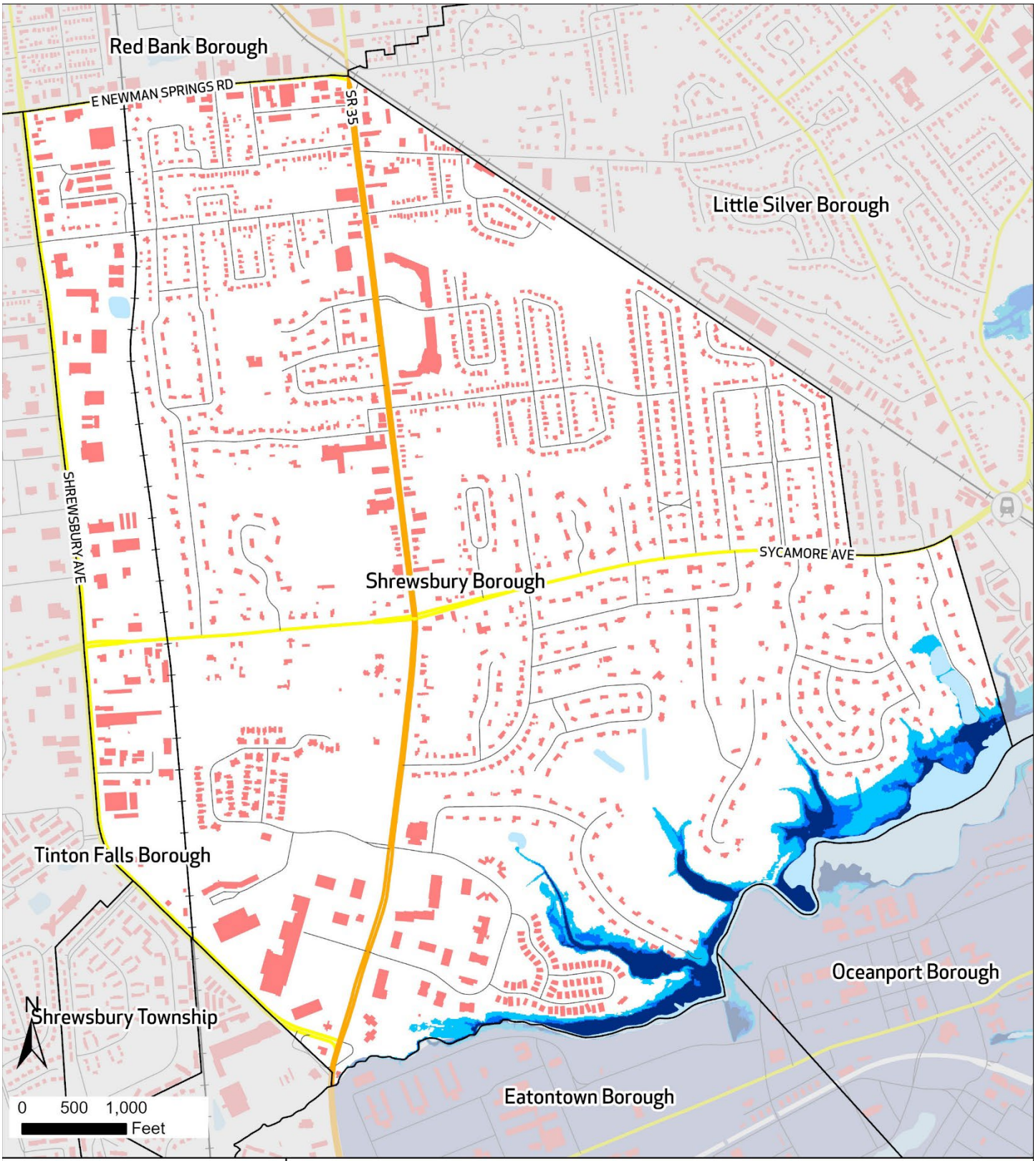
Tinton Falls Borough
Oceanport Borough
Shrewsbury Township
Eatontown Borough
N
0 500 1,000
Feet
NJ Inland Design Flood Elevation
Shrewsbury Borough
FEMA Flood Zone
Current Base Flood Elevation (1%)
NJ Inland Design Flood Elevation
FEMA BFE (1%) plus 3 Feet
State Routes
County Routes
Local Roads
Railroad
NJTransit Rail Station
Municipal Boundaries
Water
Department of Defense Land
Building Footprints
Building Footprints within IDFE
Source: FEMA, Rutgers University, NJDEP, NJOIT, NJTransit

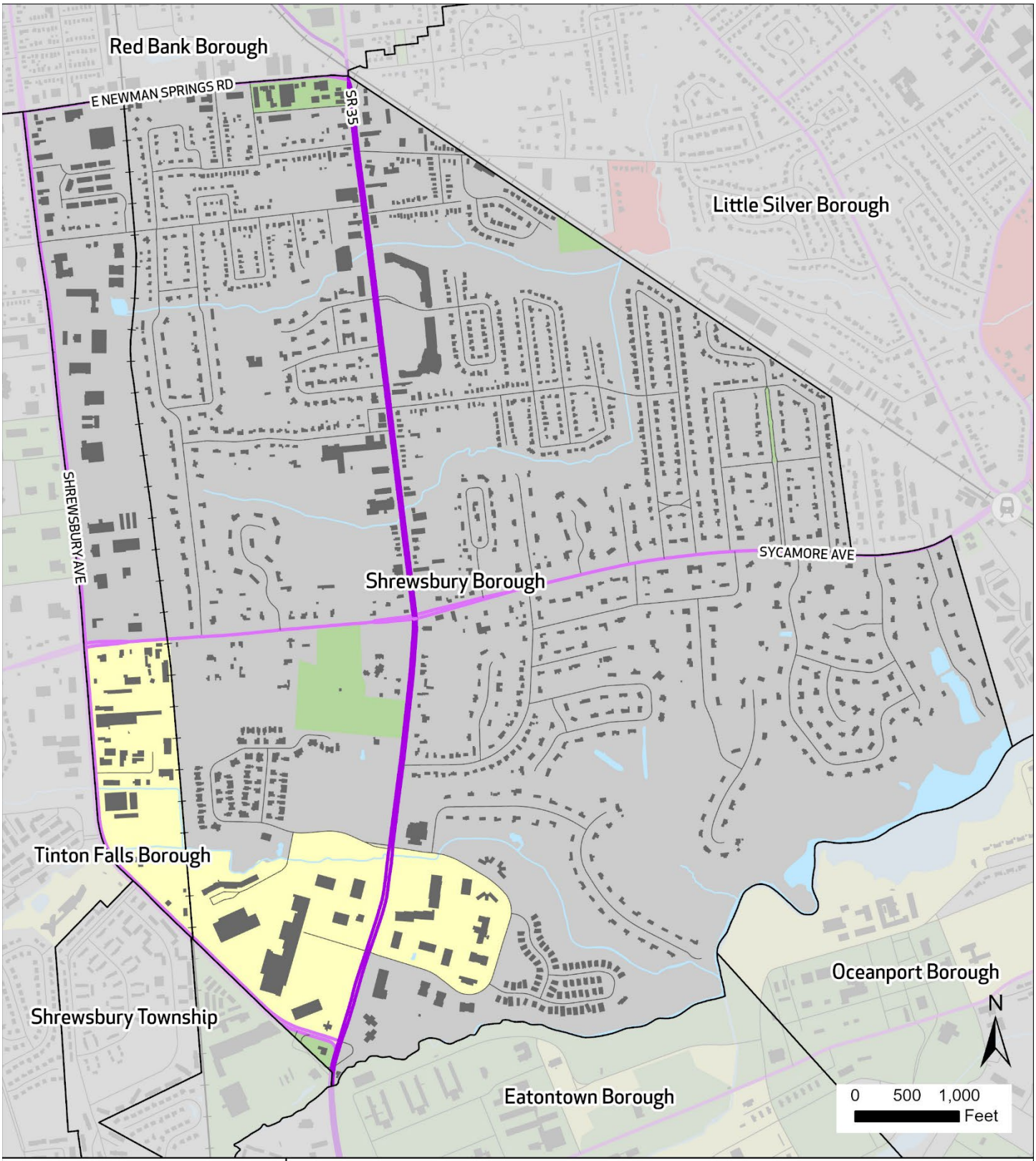


Permanent Inundation Under Sea Level Rise (SLR) Scenarios

Shrewsbury Borough

- Area Inundated Under 2 Feet SLR
- Area Inundated Under 3 Feet SLR
- Area Inundated Under 5 Feet SLR
- Interstate Highways
- State Routes
- County Routes
- Local Roads
- Rail Lines
- Municipal Boundaries
- Building Footprint
- Water
- Department of Defense Land

Source: NOAA, NJDEP, NJOIT, NJTransit



Wildland Urban Interface (WUI) Classification

Shrewsbury Borough

- Intermix
- High or Medium Density Housing
- Low or Very Low Density Housing
- No Housing
- State Routes
- County Routes
- Local Roads
- Rail Lines
- NJTransit Rail Station
- Municipal Boundaries
- Building Footprint
- Water

Source: USFS, NJDEP, NJOIT, NJTransit

CAPABILITY ASSESSMENT

Planning & Regulatory Capabilities

Shrewsbury Borough has the following additional Planning & Regulatory capabilities:

Plan and Regulation	Yes	No	Date of last update	How does this capability support hazard mitigation?
Master Plan	x		2016	Monitoring changes in the assumptions, policies and objectives forming the basis for the master plan or development regulations with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection disposition and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives.
Capital Improvement Plan	x		2024	
Local Emergency Operations Plan/Continuity of Operations Plan		x		
Floodplain Development Ordinance	x		2021	Limiting and closely monitoring any development in the municipality with regard to floodplain and storm water management
Floodplain Management Plan	x		2024	
Stormwater Management Ordinance	x		2024	
Stormwater Management Plan	x		2006	
Watershed Management Plan		X		
Sheltering Plan		X		
Evacuation Plan		X		
Substantial Damage/Improved Structures Response		X		
Repetitive Loss Plan		X		
Disaster Debris Management Plan		X		
Tracking elevation certificates and/or Letter of Map Change		X		
Post-Disaster Recovery Plan		X		
Current/recent redevelopment plans or studies		X		
Community Wildfire Protection Plan		X		
Climate Adaptation Plan		X		
Other Plans that discusses hazard mitigation		X		
Other ordinance and regulation that mitigate the impacts of natural hazards		x		

Administrative and Technical Capabilities

Shrewsbury Borough has the following Administrative and Technical capabilities:

Position	Yes	No	Explanation
Floodplain Administrator	x		
Grant Writer	x		
Staff trained to support mitigation	x		
Existing mutual aid or technical assistance agreements to support hazard mitigation projects		x	
Non-governmental organizations/other partners that work with the municipality on mitigation projects		x	

Position	Yes	No	Explanation
Organizations that work with socially vulnerable or underserved populations	x		

Education and Outreach Capabilities

Shrewsbury Borough has the following Education and Outreach capabilities:

Education & Outreach Capability	Yes	No	Explanation
Communicate natural and human-based hazards to the public	x		
StormReady	x		
Firewise USA		x	
Severe Weather Awareness Week	x		
Community Rating System (CRS)	x		

Financial Capabilities

Within the last five years, Shrewsbury Borough has used the following financial capabilities to implement hazard mitigation activities:

Financial Capability	Yes	No	Explanation
FEMA BRIC		x	
FEMA FMA		x	
FEMA Public Assistance	x		
FEMA HMGP		x	
Non-FEMA Federal Funding Programs	x		
Other FEMA resources		x	
NJ Infrastructure Bank		x	
Other state municipal assistance or grant programs	x		
Evaluation process on the prioritization of risk reduction projects against other local activities		x	
Other ongoing efforts to build additional financial capabilities		x	

Additional Capability Assessment Information:

- **Sustainable Jersey Participation Status**: Bronze

MITIGATION STRATEGY

Overview and Progress Since Last Plan Update

Shrewsbury Borough continues to implement comprehensive strategies to proactively reduce the risk of damage and loss of life from natural hazards like floods, hurricanes, and winter storms by identifying high-risk areas, implementing preventative measures like land use planning and zoning, infrastructure upgrades, public awareness campaigns, and community preparedness initiatives, ultimately aiming to minimize the impact of future natural disasters and build resilience within the community. Past focus and priority have been to reduce repetitive flooding while improving and maintaining drainage infrastructure. Future projects will further focus on this area.

Completed or Removed Actions

Action	Name	Description	Hazards Addressed	Pri-ority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
Action 45-1	Upgrade Drainage System and De-snag and Clean the Little Silver Creek	Replacement and upgrade of stormwater drainage infrastructure, stream clearing, and desnagging of Little Silver Creek.	Flood, Nor'easter, Hurricane and Tropical Storm	N/A	Borough Engineer	Monmouth County	$150,000	N/A	Completed	*$40,000 per year funded by tax levy*

New and Ongoing Actions

Action	Name	Description	Hazards Addressed	Pri-ority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
Action 45-2	Establish Public Awareness and Education Programs	Work with municipal and community stakeholders to setup a committee to develop all hazard education program including web resources and handouts. Specifically develop checklists and steps that individual residents can use to evaluate their own and immediately surrounding properties for potential impact and damage sources.	All Hazards	Medium	OEM and LEPC directives and plans.	OEM municipal budget	$2,000	5 + years	Ongoing	Currently implementing mitigation initiatives and education as part of master plan update.
Action 45-3	Relocate the First Aid Squad Outside Flood-prone Area	The First Aid Squad is located in an area that is prone to flooding. Although the building itself does not flood, the access road floods frequently reducing accessibility to the building. The town is considering	Flood, Nor'easter, Hurricane and Tropical Storm	Low	First Aid Squad	Capital budget and First Aid Squad Budget; FEMA HMA	$500,000	1 year	Ongoing	

Action	Name	Description	Hazards Addressed	Pri-ority	Responsible Party	Potential Funding	Cost Estimate	Time-line	Action Status	Notes
		moving the squad to a more desirable location.								
Action 45-4	Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Mitigate flood-prone residential structures, with particular focus on those in our community that are on FEMA's Repetitive Loss List. There is one property that is on the Borough's RL list.	Flood, Nor'easter, Hurricane and Tropical Storm, Winter Storm	High	Construction	FEMA HMA	TBD	1 year	Ongoing	
Action 45-5	Re-construction of Glorney Street to mitigate frequent flooding.	Vertical re-alignment of Glorney Street to raise street above flooding level.	Flood, Nor'easter, Hurricane and Tropical Storm, Winter Storm	High	Construction	Capital budget	138,000	1 year	Ongoing	Project was started in 2024 and should be nearing completion in 2025. Project will eliminate repetitive flooding.