



Winston Salem/Forsyth County Emergency Management
Forsyth County Public Safety Center
301 North Church Street
Winston-Salem, NC 27101
336-917-7070
www.ReadyForsyth.org

Northern Piedmont Regional Hazard Mitigation Plan

Section 9- Forsyth County

2023 Progress Report

Plan Adopted:

June 20, 2020

Date Progress Report was Prepared:

May 1, 2023

Jurisdictions Included in Plan:

- Unincorporated Forsyth County (NFIP Community # 375349)
- City of Winston-Salem (NFIP Community # 375360)
- Town of Bethania (NFIP Community # 370477)
- Village of Clemmons (NFIP Community # 370531)
- Town of Kernersville (NFIP Community # 370319)
- Town of Lewisville (NFIP Community # 370581)
- Village of Tobaccoville (NFIP Community # 370624)
- Town of Rural Hall (NFIP Community # 370606)
- Town of Walkertown (NFIP Community # 370679)

Plan Update Background:

During the 2020 Northern Piedmont Regional Hazard Mitigation Plan Planning Process, the Mitigation Planning Team (see Section 2, Table 2.3) of plan for a list of team members) along with representatives from Seven counties (Forsyth, Davie, Surry, Yadkin, Stokes, Rockingham & Caswell), which include 37 jurisdictions, worked together to produce a regional Hazard Mitigation Plan. This regional mitigation plan was approved by FEMA in June 2020. The planning teams reviewed the mitigation actions contained in the previous plan and identified and analyzed a comprehensive range of new mitigation actions. The statuses of the actions were determined to be completed, ongoing or deleted. Where feasible, mitigation actions were given completion dates. The Team reviewed the local capabilities and determined if actions could readily be accomplished by existing programs, plans, personnel, and funds. The Team also reviewed the actions contained in the 2010 North Carolina State Hazard Mitigation Plan and determined that the actions selected for the plan update are consistent with those of the State. The process for prioritizing the selected mitigation actions included discussions by the Mitigation Planning Team about the advantages and drawbacks of each identified action carried over from the previously approved plan as well as new actions identified during the update process. Actions that were carried over from the previous plan were re-prioritized based on the updated risk assessment, existing conditions in the jurisdiction, and current capabilities. The Team sought input from staff of local departments responsible for implementing each action.

City Council: Mayor Allen Joines; Denise D. Adams, Mayor Pro Tempore, North Ward; Barbara Hanes Burke, Northeast Ward; Robert C. Clark, West Ward; John C. Larson, South Ward; Jeff MacIntosh, Northwest Ward; Kevin Mundy, Southwest Ward; Annette Scippio, East Ward; James Taylor, Jr., Southeast Ward; City Manager: Lee D. Garrity

County Commissioners: David R. Plyler, Chairman; Don Martin, Vice Chair, Fleming El-Amin; Ted Kaplan; Richard V. Linville; Tonya McDaniel, Gloria D. Whisenhunt, County Manager; Dudley Watts, Jr.

Mitigation Actions were evaluated to determine if they:

- Are Cost Beneficial
- Address Identified Hazard Risks
- Are Attainable and Within Identified Capabilities
- Are Technically Feasible
- Are Politically Acceptable
- Are Socially Acceptable
- Are Legal
- Are Environmentally Sound
- Are Compatible with Mitigation Goals & Objectives

Review of Mitigation Action Plan

The Winston-Salem/Forsyth County Office of Emergency Management coordinates the review of the Northern Piedmont Regional Hazard Mitigation Plan Annex C- Forsyth County to ensure that goals and objectives set forth in the plan are kept current and the local mitigation efforts to reduce the impact of natural hazards are being accomplished. The review process involves all members of the Mitigation Planning Team, which includes representatives of all affected County departments, as well as representatives from all jurisdictions included in the plan: the City of Winston-Salem, Town of Bethania, Village of Clemmons, Town of Kernersville, Town of Lewisville, Village of Tobaccoville, Town of Rural Hall and Town of Walkertown.

A progress report is generated to reflect the effectiveness of mitigation action implementation, as outlined in the plan and reviewed by each Mitigation Planning Team member. This report includes any recommended revisions to the plan. To comply with National Flood Insurance Program regulations, this report must be reviewed by each jurisdiction's governing board, released to the media, and made available to the public. The report and the Plan are available at the following ReadyFORSYTH link: www.readyforsyth.org and Hazard Mitigation Plan can be viewed at the following link: <https://www.cityofws.org/2864/Hazard-Mitigation-Plan>

Mitigation Goals & Objectives

All mitigation objectives outlined in the plan support the overall mitigation goals to promote public health, safety and welfare of the citizens of the community; therefore the objectives have not changed and are carried out in the more specific mitigation actions. Mitigation goals and objectives can be found in Section 9 pages 291-295 of the Northern Piedmont Regional Hazard Mitigation Plan.

Mitigation Actions

Please reference the following documents at ReadyFORSYTH.org: Mitigation Action Plan (Section 9 beginning on page 291-295).

All mitigation actions listed in the 2020 Northern Piedmont Regional Hazard Mitigation Plan Section 9 Forsyth County will transition to community capabilities, with the exception of the mitigation actions listed below.

After the 2015 review of the plan, the Mitigation Planning Team determined that the following mitigation actions need further attention and will be included in the updated 2023 progress report:

Preventive Actions

MITIGATION ACTION P-6	
Proposed Action:	Revise, update and locally adopt floodplain maps (FIRMs – Flood Insurance Rate Maps)
BACKGROUND INFORMATION	
Site and Location:	NC Emergency Management (NCEM) and Forsyth County multi-jurisdictional floodplain management officials work together to identify flood prone areas throughout the county in which to conduct detailed flood studies during FIRM revisions.
History of Damages:	Flash flooding, caused by heavy and prolonged rain, is possible throughout Forsyth County. Due to past events, Forsyth County has repetitive flood loss areas.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	Flood
Category:	Prevention
Priority (High, Moderate, Low):	High
Estimated Cost:	Local Staff Costs
Potential Funding Sources:	Federal, State & Local
Lead Agency/Department Responsible:	Winston-Salem Stormwater
Implementation Schedule:	Present – 2025

Property Protection Actions

MITIGATION ACTION PP-2	
Proposed Action:	Acquire and remove or elevate structures in flood prone areas
BACKGROUND INFORMATION	
Site and Location:	The City of Winston-Salem has multiple flood prone areas and NFIP Repetitive Loss properties.
History of Damages:	Several properties have been flooded multiple times.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	Flooding
Category:	Property Protection
Priority (High, Moderate, Low):	High
Estimated Cost:	Varies depending on property
Potential Funding Sources:	Federal grants, property owner cost share
Lead Agency/Department Responsible:	Winston-Salem Stormwater
Implementation Schedule:	Current – 2025

**No Properties have been acquired and demolished in 2022-2023.

Emergency Services

MITIGATION ACTION ES-2	
Proposed Action:	Equip an emergency shelter with an alternate power source.
BACKGROUND INFORMATION	
Site and Location:	Winston-Salem/Forsyth County Schools high school.
History of Damages:	Displacement of individuals and families during emergencies require local governments to provide emergency shelter. These emergencies often result in widespread power outages that affect shelter locations. Past Forsyth County events include winter storms and tropical systems, but shelters may be used for other types of emergencies.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	All
Category:	Emergency Services
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$50,000
Potential Funding Sources:	Local staff costs, Federal grant
Lead Agency/Department Responsible:	Emergency Management
Implementation Schedule:	2025

**Is not currently being implemented due to insufficient funding.

MITIGATION ACTION ES-6	
Proposed Action:	Install stream gages along flood prone streams for flood warning and alerting purposes
BACKGROUND INFORMATION	
Site and Location:	Muddy Creek at Highway 67/Reynolda Rd and Salem Creek at Fraternity Church Road
History of Damages:	Both sites would monitor streams that contribute to flood prone areas and NFIP Repetitive Loss properties. Muddy Creek and Salem Creek meander through urban areas. The gages would provide more accurate flash flood and river flood warning services, as well as data related to pollutant loading.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	Flood
Category:	Emergency Services
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	USGS Gages - \$75,000 each (does not include annual maint.) NCEM Gages (water level only)- \$10,000 each (does not include annual maintenance)
Potential Funding Sources:	Federal, Local, Local staff costs
Lead Agency/Department Responsible:	Winston-Salem Stormwater
Implementation Schedule:	2025

**Is not currently being implemented due to insufficient funding.

MITIGATION ACTION ES-7	
Proposed Action:	Acquisition of WebEOC (resource management & communications software).
BACKGROUND INFORMATION	
Site and Location:	Emergency Operations Center/Emergency Management Office
History of Damages:	This software is vital to the operation of the Emergency Operations Center and can be utilized by all jurisdictions. County-wide emergency exercises are performed on an annual basis. Every exercise has proven the need for such a resource management tool. The Forsyth County tornado event that occurred on May 8, 2008 would have been better managed with this tool, allowing for resource coordination from a central location.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	All
Category:	Emergency Services
Priority (High, Moderate, Low):	High
Estimated Cost:	\$75,000 cost / \$25,000 annually
Potential Funding Sources:	Local
Lead Agency/Department Responsible:	Emergency Management
Implementation Schedule:	Completed.

MITIGATION ACTION	
Proposed Action:	Create maps indicating flood inundation areas during high hazard dam failure
BACKGROUND INFORMATION	
Site and Location:	
History of Damages:	In 1912, Winston Dam was overtopped but the extent of damages is unknown. Future occurrences are possible, considering most dams are maintained by private land owners and the date of dam construction is not recorded.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	Dams
Category:	Emergency Services
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Local staff time
Lead Agency/Department Responsible:	Map Forsyth
Implementation Schedule:	Complete

**There are 53 high hazard dams in Forsyth County. Mapforsyth has completed inundation maps for all 53 high hazard dams and all have been loaded to FC WebEOC.

Public Information/Public Education & Awareness

MITIGATION ACTION PI-1	
Proposed Action:	Update flood protection, emergency preparedness and other hazard education materials in Forsyth County Public Library.
BACKGROUND INFORMATION	
Site and Location:	Forsyth County Public Library
History of Damages:	N/A
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	All
Category:	Public Education & Awareness
Priority (High, Moderate, Low):	High
Estimated Cost:	Minimal, < \$100
Potential Funding Sources:	Local Library System & FEMA Publications
Lead Agency/Department Responsible:	Emergency Management
Implementation Schedule:	Completed

** All Flood information, flood maps, Forsyth County/Winston-Salem historical information and emergency preparedness material are found in the North Carolina Room of the Central Branch of the Forsyth County Public Library.

MITIGATION ACTION PI-5	
Proposed Action:	Update and maintain ReadyFORSYTH website, ReadyFORSYTH social media and ReadyFORSYTH web application for mobile devices on a daily basis.
BACKGROUND INFORMATION	
Site and Location:	Web-based
History of Damages:	These educational tools provide current emergency preparedness and response information to Forsyth County residents, business owners and visitors. The website also contains local hazards, events, incidents, training and exercises. The website and social media are accessible via free computer and internet services that are available to the public at all county library locations.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	All
Category:	Public Education & Awareness
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff cost & \$500 annual server cost
Potential Funding Sources:	Local
Lead Agency/Department Responsible:	Emergency Management
Implementation Schedule:	Daily, Current – 2025

**Updated daily.

MITIGATION ACTION P-1	
Proposed Action:	At next Land Use Plan Update, review and include hazard mitigation objectives.
BACKGROUND INFORMATION	
Site and Location:	Forsyth County parks and open space
History of Damages:	The County has one of the most restrictive/protective floodplain ordinances in NC and these plans are listed in the Comprehensive Plan (Legacy) that was adopted by Forsyth County and all the municipalities in 2012 and 2014.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	All
Category:	Prevention
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Unknown
Potential Funding Sources:	Local
Lead Agency/Department Responsible:	City of Winston-Salem, Winston-Salem/Forsyth County Planning
Implementation Schedule:	Current – 2025

** Change proposed action to: “Many hazard mitigation objectives have already been included in the county’s Land Use Plan. In conjunction with its efforts to improve its CRS rating, the county and municipalities will look at including actions to increase the amount of open space.”