

**Table II-1 - Explanation of Columns and Acronyms**

**Columns**

**Action #**

Action # corresponds to FEMA mitigation policy categories listed above.

**Action**

Description of action to be undertaken.

**Hazard**

Hazard which the action addresses.

**Objective(s) Addressed**

Reference to the numbered objective which the action supports.

**Relative Priority**

Low, moderate or high priority for funding and implementation.

**Funding Sources**

State and Federal sources of funds are noted, where applicable.

**Responsible Party**

Staff department responsible for undertaking the action. Note: The Forsyth County Board of Commissioners has ultimate authority to approve any policy, program or regulation revisions.

**Target Completion Date**

Date by which the action should be completed.

Note: Ongoing refers to the continuous implementation of the action item, in which no decisive complete date can be set. These action items require constant (ongoing) attention in order to obtain the mitigation objective addressed.

**Participating Jurisdictions**

Indicates jurisdiction(s) undertaking the mitigation action

**Abbreviations/Acronyms used in Table II-1:**

EM	Forsyth County Office of Emergency Management
INSP	Winston-Salem/Forsyth County Inspections
PL	Winston-Salem/Forsyth County Planning
FCF	Forsyth County Forester or local Fire Department
IS	City of Winston-Salem Information Systems
WSSW	Winston-Salem Storm Water Department

All	All Jurisdictions
UF	Unincorporated Forsyth County
WS	City of Winston-Salem
BT	Town of Bethania
CL	Village of Clemmons
KV	Town of Kernersville
TV	Village of Tobaccoville
RH	Town of Rural Hall
LV	Town of Lewisville
WT	Town of Walkertown

**Table II-1: Forsyth County Multi-Jurisdictional Hazard Mitigation Action Plan**

Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
<b>Preventive Actions</b>								
P-1	At next Land Use Plan Update, review and include hazard mitigation objectives.	All	1.1 2.1 3.1	Moderate	Local	All PL	Complete Ongoing	All
P-3	Update the Floodway and Floodway Fringe Regulations to require two feet of freeboard for all new structures built within a Special Flood Hazard Area.	Flood	3.2 4.2	Moderate	Local	PL INSP All	Complete	All
P-4	Update the Subdivision Ordinance by reviewing and incorporating hazard mitigation objectives.	All	1.1 2.1 3.2	Moderate	Local	PL All	Complete Ongoing	All
	CL					Ongoing	CL	
	Clemmons is updating their UDO to incorporate a site plan review item which references Hazard Mitigation Objectives 1.1, 2.1 and 3.2. Site plan petitions will consider and ensure compliance with those objectives and plan reports will indicate thus.					CL	Complete Ongoing	CL
	Clemmons updated their UDO (C-UDO-63) to incorporate a site plan review item which references Hazard Mitigation Objectives 1.1, 2.1 and 3.2. Site plan petitions consider and ensure compliance with those objectives and plan reports indicate thus.					CL	Complete Ongoing	CL
P-5	Review and revise the Unified Development Ordinance to allow for clustering of residential lots.	Flood	2.1 3.1	Moderate	Local	PL All	Complete	All
P-6	Revise and update the regulatory floodplain maps (FIRMs - Flood Insurance Rate Maps).	Flood	3.1 3.2	High	Federal State	PL <del>INSP</del> WSSW All	Complete Ongoing	All

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Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
	NC Emergency Management (NCEM) and Forsyth County multi-jurisdictional floodplain management officials have worked together to identify flood prone areas throughout the county in which to conduct detailed flood studies during upcoming FIRM revisions. NCEM has not set a date for the completion of updated FIRMs.						Ongoing	All
P-7	<p>Building Inspections – Flood Damaged Structures.</p> <p>Any and all portions of buildings that have been submerged for any length of time will be inspected for flood related damage as well as other conditions that may be dangerous to life, health or other property.</p> <p>Plan for Damaged Structures:</p> <ol style="list-style-type: none"> <li>1. Overall damage assessment/data collection (visual inspection from roadways).</li> <li>2. Data compiled and geographical areas assigned to teams.</li> <li>3. Second detailed assessment by area teams.</li> <li>4. Portions of walls, floors, ceilings, etc. that have been exposed to water will be opened for evaluation.</li> <li>5. All construction that is repaired, replaced, dried or sealed will be inspected before covered.</li> <li>6. Structure inspected for certificate of compliance.</li> </ol>	Flood	1.1	High	Local	INSP KV WSSW	Complete Ongoing	All

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Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
P-8	Policy and procedures related to storm damage and disconnected utility services: 1) inform public via television, radio and newspaper of the necessary steps to have utilities restored; 2) restrict travel as necessary while collecting damage assessment data; conduct inspections on first come, first serve basis; 4) work overtime to expedite utility reconnections.	All	1.1	High	Local	INSP KV	Complete Ongoing	All
P-9	Create a digital zoning map (Geo-Data) that can be easily reproduced for staff and public use and update on an annual basis.	All	1.1	High	Local	PL	Complete Ongoing	All
P-10	Digitize all floodplain related development documents and link them to a GIS platform.	Flood	1.1	Moderate	Local	INSP WSSW	Complete Ongoing	All
P-11	<p>Create a position for a full time Certified Floodplain Manager for the entire county</p> <p>REVIEW - This action was not accomplished during the past year due to budget cuts at the local and state level. Mitigation funding is not expected to increase within the next year; therefore, this action item is unlikely to be completed by the Target Completion Date of 2012</p> <p>There is a CFM on staff with the City of Winston-Salem Stormwater Division that handles Stormwater activities. Another staff member is expected to obtain their CFM within the next year. These staff positions handle floodplain</p>	Flood	1.1 1.2 2.1 3.1 3.2 4.1 4.2	High	Local	EM WSSW <del>INSP</del> PL  WSSW	2012  Ongoing	All

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Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
	<p>management activities throughout the county.</p> <p><u>CHANGE TO ORIGINAL MITIGATION ACTION</u> - Create a position for a full time Certified Floodplain Manager (CFM) for the entire county that coordinates Community Rating System activities and certification maintenance for all Forsyth County communities that participate in the National Flood Insurance Program: Bethania (370477), Clemmons (370531), Unincorporated areas of Forsyth County (375349), Kernersville (370319), Lewisville (370581), Rural Hall (370606), Tobaccoville (370624), Walkertown (370679), Winston-Salem (375360)</p>					EM WSSW	Ongoing 2015	
P-12	Participate in FEMA's National Flood Insurance Program	Flood	1.1 1.2 2.1 3.1 3.2 4.1 4.2	High	Local	EM All	Complete Ongoing	All
P-13	Participate in the National Flood Insurance Program's Community Rating System	Flood	1.1 1.2 2.1 3.1 3.2 4.1 4.2	High	Local	EM	Complete Ongoing	UF WS
P-14	Develop and implement the Firewise Program	Wildfires	1.1 1.2	Moderate	State Local	FCF	Complete Ongoing	All

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Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
			1.3					
P-15	Enforce burning bans during droughts	Wildfires	1.1 1.2 1.3	High	Local	FCF	Complete Ongoing	All
P-16	Participate in the Piedmont Triad Water Quality Partnership to maintain an environmentally friendly storm water system and implement best storm water management practices.	Flood	1.1 1.2 1.3	High	Local	All	Complete Ongoing	UF WS RH CL LV KV
<b>Property Protection Actions</b>								
PP-1	Create and maintain a list of repetitive flood loss properties.	Flood	2.2 3.1	Moderate	Local	EM	Complete Ongoing	All
PP-2	To acquire and remove or elevate homes in flood prone areas.  In 2009 & 2010, two repetitive flood loss properties were acquired by the City of Winston-Salem. They were demolished and removed from the floodplain with flood mitigation grant monies from North Carolina Emergency Management and FEMA, which was coordinated by the City of Winston-Salem Stormwater Department. Although PP-2 is an ongoing mitigation action item, no structures have been acquired in 2011 due to applications not reaching the repetitive flood loss threshold criteria established by FEMA. Continuous flood losses throughout the United States for recent disasters have caused mitigation grants to become more competitive.  In 2012, a mitigation grant was	Flood	3.1	Moderate	Federal State Local	WSSW EM	Complete Ongoing	All  WS

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Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
	obtained to acquire and demolish a repetitive flood loss structure in the City of Winston-Salem. The City has applied for two more grants to remove flood ravaged structures at two additional locations during the next grant cycle.							WS
PP-3	<p>Limit new development encroachment (building or fill) to 15% of the Floodway Fringe</p> <p>Current ordinance standards restrict encroachment to no more than 50% of the flood fringe. A proposal was made to the Public Works Committee of the Winston-Salem City Council to adopt regulations that would limit flood fringe encroachment to no more than 15%. On September 23, 2010, the City of Winston-Salem Stormwater Division, Winston-Salem/Forsyth County Planning Department and Winston-Salem/Forsyth County Inspections Division conducted a tour of the various flood fringe areas for the Council's Public Works Committee to show how the more restrictive regulations would impact a sampling of flood fringe areas. As of this date, the Committee has not acted on this proposal.</p>	Flood	3.2 4.2	Moderate	Local	INSP WSSW PL	2010	All
PP-4	Provide cost-share information in conjunction with FEMA flood mitigation grant assistance program information	Flood	3.1 3.2	Moderate	Federal State Local	WSSW EM	Complete Ongoing	WS

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Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
	to property owners within the City of Winston-Salem.							
<b>Emergency Management</b>								
ES-1	Ensure adequate hazard warning in case of major hazard event.	All	1.3	High	Local	EM	Complete Ongoing	All
ES-2	Improve shelter capacities with alternate power sources.	Winter Storm	1.3	High	Federal State	EM	Complete Ongoing	All
ES-3	Establish program to maintain continuity of government operations.	All	1.3	High	State	EM	Complete Ongoing	All
ES-4	Identify alternate Emergency Operations Center locations.	All	1.3	High	Local	EM	Complete Ongoing	All
ES-5	<p>Train Community Emergency Response Teams and maintain notification rosters</p> <p>A 'Forsyth County CERT Standard Operating Guide' was developed by Winston-Salem/Forsyth County Emergency Management in 2011. Two CERT courses and a day-long CERT Refresher Workshop were held in 2011, as well.</p> <p>One CERT course was held in the Spring of 2012.</p>	All	1.1 1.2 1.3	Moderate	Federal State Local	EM	Complete Ongoing	All
ES-6	<p>Install stream gages along flood prone streams for flood warning and alerting purposes</p> <p>Funding is not available; therefore no progress has been made concerning this action item in the past year. The relative priority remains "high" for the installation of stream gages. Stream gages provide water level information to the National Weather Service and local officials so that they may issue</p>	Flood	1.1 4.2	High	Federal State Local	EM WSSW	When funding becomes available	All



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Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
	flood watches and warnings as necessary to preserve life and property during rain events or dam failure.							
ES-7	Evaluate emerging technologies and upgrade through hardware/software acquisition and training where appropriate and feasible.	All	1.1 1.3 2.2	High	Local	EM IS	Complete Ongoing	All
ES-7a	Acquisition of WebEOC (resource management & communications software). This software is vital to operation of the Emergency Operations Center and can be utilized by all jurisdictions.	All	1.1 1.3	High	Local	EM	2013	All
	EM requested the acquisition of WebEOC in last year's budget and it was rejected. EM will continue to propose the acquisition of this software for the next budget year.						2015	
ES-7b	Acquire and utilize HAZUS (GIS-based mapping software developed by FEMA that models community impacts for flooding, hurricanes and earthquakes) for mitigation planning.  EM acquired HAZUS and attended several HAZUS training courses at the Emergency Management Institute. Emergency Operations Center GIS	Floods Hurricanes Earthquakes	1.1 1.2 2.1 2.2 3.1 3.2 4.1	High	Federal State Local	EM	Complete Ongoing	All

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Action #	Mitigation Actions	Hazard	Objective(s) Addressed	Relative Priority	Funding Sources	Responsible Party	Target Completion Date	Participating Jurisdictions
	support staff is working with EM to develop HAZUS models and other mapping technologies.							
ES-7c	Utilize SME (subject matter expert) support groups to develop emerging technologies in disaster preparedness, mitigation, response and recovery.  EM established an Emergency Preparedness Technology Support Group in order to share knowledge and ideas of SMEs in the fields of technology and disaster management.	All	1.1 1.2 1.3 2.1 2.2 3.1 3.2 4.1	High	Local	EM	Complete Ongoing	All
ES-8	Create maps indicating flood inundation areas during high hazard dam failure.	Dam Failure	1.1 1.3 2.2 4.2	High	Local	EM IS	Complete Ongoing	All
ES-9	<b>Jurisdiction:</b> Identify an Emergency Operations Center and an Alternate Emergency Operations Center	All	1.1 1.3	High	Local	CL	Complete Ongoing	CL
ES-10	<b>Jurisdiction:</b> Develop a Continuity of Government Operations Plan  Clemmons continuously updates their Emergency Management Plan. This year Clemmons added Appendix H to the Plan, which includes the 'Line of Succession' for the governing body.	All	1.1 1.3	High	Local	CL	Complete Ongoing	CL
ES-11	<b>Jurisdiction:</b> Public Works/Road Maintenance Plan in place to mitigate traffic problems caused by winter storms	Winter Storm	1.1 1.3	High	Local	WT	Complete Ongoing	WT
<b>Public Information Activities</b>								
PI-1	Place flood protection, emergency preparedness, and other hazard education materials in all branches of	All	1.2	High	Local	EM	Complete Ongoing	All

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	the Forsyth County public library system.							
PI-2	The Forsyth County/Winston Salem Flood Plain Administrator/Engineer has received training on erosion and sedimentation control methods and on floodplain surveying certification. On an annual basis, this person makes numerous site visits to assist property owners and developers with problems and potential problems associated with drainage, erosion, and flooding. Site visits are made at the request of the property owner or developer and are usually handled through the <del>Inspections Department</del> Stormwater Division (WSSW).	Floods	1.1 3.1 4.1	High	Local	<del>INSP</del> WSSW	Complete Ongoing	All
PI-3	Develop and conduct county-wide educational programs for the general public, organizations and businesses that emphasize emergency preparedness for all types of local hazards and help them identify how mitigation and preparedness can become incorporated into their own routine functions or activities.	All	1.1 1.2	High	Local	EM All	Complete Ongoing	All
PI-4	<b>Jurisdictions:</b> Participate in outreach activities to inform and educate the public of emergency preparedness and mitigation strategies/techniques. Example activities: newsletters, websites, hotlines, mailings, television broadcasts & postings, public events, etc.	All	1.2	Moderate	Local	CL TV WS	Complete Ongoing	CL TV WS
PI-5	Maintain ReadyFORSYTH website, ReadyFORSYTH social media and ReadyFORSYTH web application for	All	1.1 1.2 1.3	High	Federal State Local	EM	Complete Ongoing	

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	mobile devices. These educational tools provide current emergency preparedness 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.		2.1 2.2 3.1 4.1					All