

CRS 510 Floodplain Management

2012 Progress Report

Sumter City-County Hazard Mitigation Plan

The Santee-Lynches Hazard Mitigation Plan, adopted May 11, 2010 by Sumter County and May 4, 2010 by the City of Sumter, and approved by FEMA June 15, 2010, is the officially adopted Floodplain Management Plan for both the City and the County. It contains specific goals and objectives, and lists responsibilities and actions that pertain to minimizing flood damage in both jurisdictions, and all of the other planning documents and efforts fall under the scope of that plan and contribute to the implementation of the specific goals and objectives outlined in the HMP/FMP.

Sumter County Mitigation Strategy

Goal #1 Ensure the protection of critical facilities in the county.

Objectives

- Identify needed repairs and improvements to critical facility structures and equipment.
- Identify critical facilities that are at risk of being damaged or incapacitated due to a natural disaster.

Goal #2 Increase public education and awareness of natural hazards.

Objectives

- Provide public education to increase awareness of hazards and publicize the effectiveness of mitigation by incorporating/developing web sites, pamphlets, radio, television, and print media.
- All interested individuals will be encouraged to participate in hazard mitigation planning and training activities.
- Educate the public about emergency shelters and evacuation procedures.

Goal #3 Ensure that the availability and operation of the county's infrastructure will not be significantly disrupted by a natural disaster.

Objectives

- Water, sewer, roads, power, and natural gas infrastructure must be assessed for their vulnerability, and be inspected for their ability to maintain functionality during the occurrence of a natural disaster.

Goal #4 Reduce the potential impact of natural disasters on new and existing development

Objectives

- Through comprehensive plans, building codes, or zoning ordinances and similar local government initiatives should address natural hazard mitigation and strengthen present policies to further protect the county and incorporated municipalities.
- Address identified data limitations regarding lack of detailed information about development build-out potential in high hazard areas.

Goal #5 Ensure that emergency shelters have adequate capacity and resources.

Objectives

- Ensure the availability of back up power through generators.
- Ensure that adequate and sufficient medical supplies and equipment are present.

- Utilize Census Block Group population counts to ensure that shelters are adequate in size to serve surrounding population.

Goal #6 Reduce the impact of wildfires on homes, buildings, critical facilities, and infrastructure.

Objectives

- Address identified data limitations regarding lack of detailed information about vegetation types and individual structures located within the more rural areas of the County.
- Develop a comprehensive approach to reducing the possibility of damage and loss of function due to the exposure of critical facilities and infrastructure to wildfire.

Goal #7 Reduce the impact of severe winds on houses, buildings, critical facilities, and infrastructure.

Objectives

- Pursue community oriented grants for structures

Goal #8 Reduce the impact of floods on homes, buildings, critical facilities, and infrastructure.

Objectives

- Develop a comprehensive approach, through long-range planning, ICC Code revisions and zoning enforcement, to reducing the possibility of damage to structures.
- Protect existing structures and assets that are most vulnerable to the effects of flooding.
- Promote the continuing purchase of flood insurance by property owners in flood hazard areas.
- Address identified data limitations regarding lack of detailed information about individual structures located in the 100 year floodplain; flood probabilities other than the 100 year flood plain; and first floor elevations for priority areas.

Goal #9 Ensure the protection and function of Communications.

Objectives

- Communication lines should be frequently inspected in order to determine vulnerability to natural hazards.
- Inadequate communication systems supporting emergency service operations will be retrofitted or relocated to withstand the impact of natural disasters.

Goal #10 Facilitate the preparedness of Emergency Response

Objectives

- Enhance response capacity of the County fire, sheriff, and emergency services personnel to at-risk populations.
- Obtain funding for new equipment and training in order to enhance response times and performance.

Goal #11 Construct a new Emergency Management Office & EOC

Objectives

- Choose location and design of Emergency Management Office and EOC that meets safety and response requirements.
- *Obtain funding for updated and functional Emergency Management Office and well equipped EOC.*

Goal #1: Ensure the protection of critical facilities in the county.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High A	Facility Evaluation	Prepare facility audits by evaluating all critical facilities exposure to damage from natural hazards and power losses from downed power lines. Include a review of insurance coverage and identify where more information can be found on the property protection measures recommended by the audit.	Emergency Manager	12 Months
	2012	A partial audit was completed in 2010, primarily of fire stations, in preparation for the investment of funds generated through the "Pennies for Progress" sales tax. Additionally, shelters are evaluated annually with the cooperation of the American Red Cross		Complete / Ongoing
Medium A	Repair Facilities	Make repairs found listed in the audits in order for the facility to remain operational in case a natural disaster occurs. Items to consider include replacing roofs, installing storm windows and hurricane shutters, improved electrical systems, and ensuring the structures meet the required building codes.	County Administrator & City Manager	1-2 Years
	2012	The "Pennies for Progress" funding has allowed the county to build two new rural fire stations and are in progress of completing building of two more brand new stations. These funds have also allowed for renovations to be completed to eleven rural stations and are currently in progress to complete renovations on two other stations. Upon completion of these projects all rural stations will have received renovations or a new station. Purchasing necessary generators for critical facilities that are without are considered on-going and we will continue to target potential funding opportunities to fund generators for these critical facilities.		Ongoing
Low F,H,T,WS ,E	Backup Power for Critical Facilities	All critical facilities should have a proper backup power supply in order to make sure that if power lines are downed, they can remain functional. Therefore, it is essential that critical facilities should be equipped with backup generators.	Emergency Manager	Within 5 Years
	2012	Four new portable electric start generators were purchased for use in local Red Cross and DSS shelters as needed.		Ongoing

Goal #2: Increase public education and awareness of natural hazards.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
Medium A	Public Education and Awareness information (M) (P)	Prepare background information, articles and other explanations of hazard mitigation topics and provide them to County, municipal, and private offices for use in presentations, newsletter articles, websites, brochures, and other outreach projects.	Emergency Manager	12 Months
	2012	Information from the American Red Cross, FEMA, and SC EMD is generally used for educational purposes. Compiling this information is the responsibility of the Emergency Management Agency and is part of an ongoing process.		Ongoing
High A	Public Education and Awareness (M) (P)	Prepare and disseminate outreach projects based on any prepared material concerning hazard mitigation. These projects should be publicized by the utilization of newsletters, news releases, directed mailings, handouts, websites, radio, and television.	Emergency Manager	12 Months
	2012	Throughout the year during public awareness presentations; natural hazard information was shared with local citizens. Also this information was distributed from the County Emergency Management exhibitor's booth during the week of the Sumter County Fair. All Hazards packets inclusive of Ready.Gov materials along with a letter of explanation were in fact distributed to all city personnel in June 2012 for their personal and family safety in preparation of an emergency. Materials from Ready.Gov are available for public review and printing via web. Materials are also available through Police Emergency Management and City Public Safety and Welfare. Annual Emergency Natural Disasters Mock Exercises are conducted with all-hazards entities participating inclusive of Shaw AFB.		Ongoing

Goal #3: Ensure that the county's infrastructure will not be significantly disrupted by a natural disaster.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High F,H,T,WS, TS,E	Inspection of Lines	Utility lines and structures need to be inspected for their ability to withstand a natural hazard.	Provider	12 Months
	2012	This is part of an ongoing process performed by the individual utility providers		Ongoing
Low F,H,T,WS, DF,WF, E	Replace or Retrofit Outdated Structures	Any antiquated structures that are deemed vulnerable should be replaced or retrofitted.	Emergency Manager & Public Works	3 Years.
	2012	The County's Storm Water Department reworked the outlet structure for a storm water pond in the Amherst and Morris Way Subdivision to increase the pond's storage volume and decrease the peak discharge rate in order to mitigate flooding. The County's Storm Water Department reworked the outlet of a pipe culvert in the Lakewood Subdivision to mitigate flooding.		Ongoing
Medium F,H,WS,E	Models and Database	The County and municipalities should develop geographically accurate models and databases of their infrastructure systems.	IT Department	3 Years. Ongoing
	2012	Currently the County's GIS database contains up-to-date files that show the location of fire departments, schools, radio towers, and fire hydrants.		Ongoing

Goal #4: Reduce the impact of natural disasters on new and existing developments.

Priority	Name	Action/Progress	Responsible Party	Timeframe
High	Update Plans, Codes, and Ordinances	When comprehensive plans, land use plans, zoning, and subdivision ordinances are up for revision, they should include natural disaster mitigation provisions.	Planning Department	24 Months.
	2012	The Planning Department continues to implement the 2030 Comprehensive Land Use Plan, adopted in 2009, included mapped floodplains in conservation areas, which discourages public and private development and values the natural and beneficial functions of wetlands and floodplains. This will reduce the impact of natural disasters on new development and re-development projects. The plan also weighs the costs related to public services and denotes primary investment areas for development where adequate infrastructure already exists. Currently City & County Zoning Ordinances are in the process of being evaluated for revisions but already include coordinated approaches to development permits that take into account natural environmental features as well as public safety, access, and infrastructure costs. In addition, the City and County Flood Hazard Prevention Ordinances address public safety and flood hazard mitigation in the form of requirements for development in Special Flood Hazard Areas that are beyond the minimum required under federal law. New structures in the floodplain are required to meet stringent development requirements designed to address public safety and mitigation issues.		Complete/ Ongoing

Goal # 5: Ensure that emergency shelters have adequate capacity and resources				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High A	Shelter Audit	Perform an audit of shelters to determine which of these structures are better-suited and equipped to serve at-risk populations. In addition, the audit should also determine what equipment is needed to meet these tasks.	Emergency Manager	Ongoing
	2012	Sumter County Emergency Management works with the American Red Cross to audit and review shelters capabilities on a regular basis. Our mandatory shelter at Sumter High School has been retrofitted with backup generator capability.		Ongoing
Medium A	Special Needs Population Survey	Use demographic data to determine the location of at-risk populations and develop plans to provide transportation in order to evacuate them to shelters that can provide medical care and meet any special needs that they may have.	Emergency Manager	Ongoing
	2012	At risk populations have been identified through a survey on local bus routes. The locations of low income residents with no access to a vehicle, as identified by the 2010 Census, were mapped to identify priority preference for new and modified bus routes. No follow up plan has been created to determine how to provide medical care or transportation in the case of an emergency.		Complete/ Ongoing
Low F,H,T,WS ,E	Backup Power	Make sure shelters have an adequate back up power supply by furnishing them with generators.	Emergency Manger	Ongoing
	2012	A limited number of portable generators are available for the remaining shelters. Grant funding has been used to purchase additional portable generators for shelters to serve as back up and additional power usage. Four new electric start generators were purchased for use in Red Cross and DSS shelters		Ongoing
Low A	Medical and Health Facilities	Public and private medical and health care facilities will be retrofitted or relocated to withstand natural disasters.	Emergency Manager	5 Years
	2012	The on-site generator at Toumey Regional Healthcare System was recently upgraded and a portable generator purchased to provide power to the patient rehab center.		3 years

Goal # 6: Reduce the impact of wildfires on homes, buildings, critical facilities, and infrastructure.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
Medium WF	Evaluate Areas Susceptible to Wildfires	Utilize GIS analysis to identify structures (homes and other buildings) that are in areas susceptible to wildfire.	Emergency Manager	5 Years
	2012	No formal survey has been completed at this time due to a lack of staff. However the Planning Department has addressed data needs and expects to utilize information from the US Forest Service, NOAA, FEMA, and the Tax Assessors database to target areas that may be susceptible to wildfires.		Ongoing
Goal # 7: Reduce the impact of severe wind on homes, buildings, critical facilities, and infrastructure.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High H,T,WS,T S	Vegetation Management	Inspect and manage vegetation that could damage critical facilities if felled by wind.	Emergency Manager / Public Works	12 Months
	2012	As part of this ongoing process risks such as overhanging limbs, dead trees, etc. are dealt with as they arise. Sumter County brought in an outside contractor in 2009 to trim trees around power lines and electrical facilities to reduce the impact of wind on the electrical grid.		Ongoing

Goal # 8: Reduce the impact of floods on homes, buildings, critical facilities, and infrastructure.

Priority	Name	Action/Progress	Responsible Party	Timeframe
High	Drainage Ditch Maintenance	Implement a formal and regular drainage ditch and canal system maintenance program for storm water management.	Public Works	Ongoing
	2012	In 2011 the County's Storm Water Department cleaned 185 catch basins and 7,061 feet of pipe culvert in the Urbanized Areas of Sumter County (excluding the city limits).		Ongoing
High F	Update Flood Maps	Encourage FEMA to update flood maps.	Planning	Ongoing;
	2012	In April 2011 Members of the City/County Planning Department, Sumter County Mapping, and City and County Stormwater Departments participated in a discovery meeting with SCDNRC in regards to the FEMA Map Modernization Initiative and the Wateree Watershed Project. The planning Department provided information in both paper and digital format that detailed local infrastructure as well as priority areas and flooding event history in order to revise the local flood maps. We continue to support FEMA's efforts to obtain the most up to date and accurate maps for the purpose of flood zone determinations and property protection.		Ongoing
High F	Back Flow Prevention	Install back-flow prevention valves in sewer pipes.	Public Works	Ongoing
	2012	The county has identified the installation of back-flow valves to be unnecessary.		Complete
High	Storm Water Management	Implement the mandatory storm water utility/tax.	Public Works	Completed. This was implemented FY 2010 in both City & County
	2012	This tax has now been adopted by both the City and County Councils along with new Stormwater Ordinances, as of August 2010. Both the City and the County have implemented Stormwater Utility sections under their respective Public Works Depts.		Complete

Goal #8: New Actions				
Priority	Name	Action/Progress	Responsible Party	Timeframe
Med F	Storm Water Management	Pilot mitigation projects for storm water ponds and wetlands at public parks and a public golf course to determine better ways to manage and protect natural storm water treatment and water quality management.	Planning & Public Works	Ongoing
	2012	The County, in cooperation with Carolina Clear Cooperative Extension, installed a rain garden at Patriot Park to capture and treat water from the parking lot and soccer fields. The City planted cypress trees in the Palmetto Park stormwater detention pond to improve appearance as well as improve water quality through nutrient uptake. The new Sumter Judicial Building incorporates a number of stormwater retention/detention devices. Three underground detention areas will collect stormwater from across the site, while five infiltration strips are being installed for the collection of parking lot run off for filtration.		Ongoing
High F	Data limitations, amended strategies to address issues	Fold information gleaned through the Comprehensive Plan update, the Hazard Mitigation Plan update, and the County-wide Watershed Study into a comprehensive floodplain management plan.	Planning	2 years
	2012	No progress has been made towards completing a Comprehensive Floodplain Management Plan at this point in time due to limited staff availability.		2 years
High F	Data limitations	Identify through GIS overlays areas coupled with building permit files where development has impacted floodplains and critical areas, and address future impacts through the comprehensive floodplain management plan.	Planning	2 years
	2012	New building permits are strictly regulated by the local Flood Damage Prevention Ordinance, which meets a higher standard than required by FEMA.		Ongoing
Med F	Data limitations	Track local flooding events through citizen participation and gathering information through coordination with Public Safety department and Public Works departments, coupled with data from federal sources (USGS, NOAA, etc.)	Planning	2 years
	2012	Due to staffing limitations only a small number of local flooding events have been documented.		Ongoing

Goal # 9: Ensure the protection and function of Communications.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High	Inspection of Lines	An inspection of communication lines in order to determine what needs to be replaced, and to ensure that they are clear from tree limbs and other obstructions.	Provider	Ongoing
	2012	This is part of an ongoing process conducted by the individual providers. All providers have aggressive programs in place to keep lines free from vegetation.		Ongoing
Low	Creation of Mobile Dispatch Unit	Create a mobile dispatch unit to ensure that communications are not lost as a result of a natural disaster.	County EM Director	Ongoing
	2012	The Sumter County Sheriff's Department has acquired a FEMA trailer as a Mobile Command Unit.		Complete
Low	Retrofit and Relocate Communication System	Utility and communication systems supporting emergency services operations will be retrofitted or relocated to withstand the impact of a natural disaster.	Provider	Ongoing
	2012	Back-up telecommunications center has been relocated to an improved site. This facility has more space and is more functional and is equipped with a generator. Telecommunication tests at site are run regularly to ensure that switching locations will work properly when needed. 10 additional phone lines were added to distribute to emergency personnel as needed in case of emergency.		Ongoing

Goal #10: Facilitate the preparedness of Emergency Response.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High	Emergency Response Preparation Evaluation	Conduct a review of emergency response plans and programs to identify where additional activities are needed to respond to natural hazards.	Emergency Manager	Ongoing
	2012	The Sumter County Emergency Operations Plan (EOP) takes an all hazards approach is reviewed and updated every other year.		Ongoing
Medium	Emergency Response Preparation Equipment	Purchase any necessary equipment that is critical for the response to natural disasters and to ensure that personnel have adequate and up-to date training and the use of specific equipment.	Emergency Manager	Ongoing
	2012	The Emergency Operations Center, Alternate Emergency Operations Center, and Mobile Operations Center are continually being looked at for new funding for improved emergency response. Emergency Management staff engages in continuing education classes involving all aspects of emergency response and participate in drills, exercises, and forums. The County is currently investigating grants to upgrade and repair their radion 800mhz radios including City & County Police and Fire. Sumter County recently participated in a training exercise for dealing with a radiation response. Recently completed training for not only responding to but also the reporting of critical information after the emergency to get things back online and begin the insurance recovery process.		Ongoing

New Goal #11: Improve the continuity of operations for the Emergency Management Agency and the Emergency Operations Center.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High A	New EMO/EOC pre-development	Choose the location and design of a new Emergency Management Office and Emergency Operations Center.	County Administrator/ Emergency Manager	Immediate
	2012	No new Emergency Management Office and Operations Center has been designated. The new Sumter Judicial Center was proposed as a candidate for the new Emergency Management Office and Operation center. It was then determined that the current office space offered better protection against hurricane damage than the new Judicial Center would, so it was decided to keep the office where it was.		Complete
High A	New EMO/EOC Development	Locate funding for an updated & functional Emergency Management Office and a well-equipped Emergency Operations Center.	County Administrator/ Emergency Manager	3 Years
	2012	The County's Emergency Management team actively pursues available grants for training and equipment by including multiple organizations in order to make the best case for needed funds. They coordinate City and County Fire Departments, Police, and Emergency Services to secure and distribute grant funding.		Ongoing

City of Sumter Mitigation Strategy

Goal #1 Ensure the protection of critical facilities in the city.

Objectives

- Identify needed repairs and improvements to critical facility structures and equipment.
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Goal #2 Increase public education and awareness of natural hazards.

Objectives

- Provide public education to increase awareness of hazards and publicize the effectiveness of mitigation by incorporating/developing web sites, pamphlets, radio, television, and print media.
- All interested individuals will be encouraged to participate in hazard mitigation planning and training activities.
- Educate the public about emergency shelters and evacuation procedures.

Goal #3 Ensure that the availability and operation of the city's infrastructure will not be significantly disrupted by a natural disaster.

Objectives

- Water, sewer, roads, power, and natural gas infrastructure must be assessed for their vulnerability, and be inspected for their ability to maintain functionality during the occurrence of a natural disaster.

Goal #4 Reduce the potential impact of natural disasters on new and existing development

Objectives

- Through comprehensive plans, building codes, or zoning ordinances and similar local government initiatives should address natural hazard mitigation and strengthen present policies to further protect the city and incorporated municipalities.
- Address identified data limitations regarding lack of detailed information about development build-out potential in high hazard areas.

Goal #5 Reduce the impact of wildfires on homes, buildings, critical facilities, and infrastructure.

Objectives

- Address identified data limitations regarding lack of detailed information about vegetation types and individual structures located within the more forested or overgrown areas of the City.
- Develop a comprehensive approach to reducing the possibility of damage and loss of function due to the exposure of critical facilities and infrastructure to wildfire.

Goal #6 Reduce the impact of severe winds on houses, buildings, critical facilities, and infrastructure.

Objectives

- Pursue community oriented grants for structures

Goal #7 Reduce the impact of floods on homes, buildings, critical facilities, and infrastructure.

Objectives

- Develop a comprehensive approach, through long-range planning, ICC Code revisions and zoning enforcement, to reducing the possibility of damage to structures.
- Protect existing structures and assets that are most vulnerable to the effects of flooding.
- Promote the continuing purchase of flood insurance by property owners in flood hazard

areas.

- Address identified data limitations regarding lack of detailed information about individual structures located in the 100 year floodplain; flood probabilities other than the 100 year flood plain; and first floor elevations for priority areas.

Goal #8 Ensure the protection and function of Communications.

Objectives

- Communication lines should be frequently inspected in order to determine vulnerability to natural hazards.
- Inadequate communication systems supporting emergency service operations will be retrofitted or relocated to withstand the impact of natural disasters.

Goal #9 Facilitate the preparedness of Emergency Response

Objectives

- Enhance response capacity of the City fire, police, and emergency services personnel to at-risk populations.
- Obtain funding for new equipment and training in order to enhance response times and performance.

Goal #1: Ensure the protection of critical facilities in the city.

Priority	Name	Action/Progress	Responsible Party	Timeframe
High A	Facility Evaluation	Prepare facility audits by evaluating all critical facilities exposure to damage from natural hazards and power losses from downed power lines. Include a review of insurance coverage and identify where more information can be found on the property protection measures recommended by the audit.	Emergency Manager	12 Months
	2012	Although no formal audit has been completed many critical facilities are evaluated annually as part of the review of the Sumter County Emergency Operations Plan. Additionally, shelters are evaluated annually with the assistance of the American Red Cross.		Ongoing
Medium A	Repair Facilities	Make repairs found listed in the audits in order for the facility to remain operational in case a natural disaster occurs. Items to consider include replacing roofs, installing storm windows and hurricane shutters, improved electrical systems, and ensuring the structures meet the required building codes.	City Manager	1-2 Years
	2012	Repairs are made to critical facilities on an as-needed basis as funds allow.		Ongoing
Low F,H,T,WS ,E	Backup Power for Critical Facilities	All critical facilities should have a proper backup power supply in order to make sure that if power lines are downed, they can remain functional. Therefore, it is essential that critical facilities should be equipped with backup generators.	EM	Within 5 Years
	2012	Four new portable electric start generators were purchased for use in local Red Cross and DSS shelters as needed.		Ongoing

Goal #2: Increase public education and awareness of natural hazards.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
Medium A	Public Education and Awareness information	Prepare background information, articles and other explanations of hazard mitigation topics and provide them to County, municipal, and private offices for use in presentations, newsletter articles, websites, brochures, and other outreach projects.	EM	12 Months
	2012	<p>All Hazards packets inclusive of Ready.Gov materials along with a letter of explanation were in fact distributed to all city personnel in June 2012 for their personal and family safety in preparation of an emergency. Materials from Ready.Gov are available for public review and printing via web. There are materials also available through Police Emergency Management and City Public Safety and Welfare.</p> <p>Annual Emergency Natural Disasters Mock Exercises are conducted with all-hazards entities participating inclusive of Shaw AFB. The Publication and Awareness Information with regard to public safety and welfare, fire protection, hazards etc... is a continual process that is shared with the public and private sector by multiple entities within the city.</p>		Ongoing
High A	Public Education and Awareness	Prepare and disseminate outreach projects based on any prepared material concerning hazard mitigation. These projects should be publicized by the utilization of newsletters, news releases, directed mailings, handouts, websites, radio, and television.	EM	12 Months
	2012	This is an ongoing process that is shared between Emergency Management, the Fire Department, and law enforcement. Personnel regularly speak to schools, civic groups, senior groups, etc. In addition, Emergency Management operates a booth at the Sumter County Fair annually.		Ongoing

Goal #3: Ensure that the county's infrastructure will not be significantly disrupted by a natural disaster.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High F,H,T,WS ,DF,WF,E	Inspection of Lines	Utility lines and structures need to be inspected for their ability to withstand a natural hazard.	Provider	12 Months
	2012	This is part of an ongoing process performed by the individual utility providers		Ongoing
Low F,H,T,WS ,DF,WF,E	Replace or Retrofit Outdated Structures	Any antiquated structures that are deemed vulnerable should be replaced or retrofitted.	EM & Public Works	3 Years
	2012	No antiquated structures have been replaced or significantly retrofitted since under the current plan due to a lack of available funds.		Ongoing
Medium F,H,E	Models and Database	The County and municipalities should develop geographically accurate models and databases of their infrastructure systems.	IT Department	3 Years
	2012	The City's Engineering department routinely updates information in the County's GIS database system with regards to storm sewers, and water utility infrastructure.		Ongoing

Goal #4: Reduce the impact of natural disasters on new and existing developments.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
Medium F,H,DF,E, D	Update Plans, Codes, and Ordinance	When comprehensive plans, land use plans, zoning, and subdivision ordinances are up for revision, they should include natural disaster mitigation provisions.	Planning Department	2-4 Years
	2012	The Planning Department continues to implement the 2030 Comprehensive Land Use Plan, which includes mapped floodplains in conservation area which discourages public and private development and values the natural and beneficial functions of wetlands and floodplains. This will reduce the impact of natural disasters on new development and re-development projects. The plan also weighs the costs related to public services and denotes primary investment areas for development where adequate infrastructure already exists. City & County Zoning Ordinances are in the process of being evaluated for revisions but already include coordinated approaches to development permits that take into account natural environmental features as well as public safety, access, and infrastructure costs. In addition, the City and County Flood Hazard Prevention Ordinances address public safety and flood hazard mitigation in the form of requirements for development in Special Flood Hazard Areas that are beyond the minimum required under federal law. New structures in the floodplain are required to meet stringent development requirements designed to address public safety and mitigation issues.		Complete
Low F,H,DF,E, D	Property Protection Measures	Incorporate retrofitting incentives by establishing a program of technical assistance and financial incentives to encourage property protection measures on private property.	City Council	Ongoing
	2012	The Planning Department supports FEMA initiative that provides financial assistance for retrofitting flood prone homes, and provides technical assistance in applying for this funding.	Planning Department	Ongoing
Low F,DF	Flood Control Projects	Implement flood control projects for areas such as farm drainage, bridge improvements, and repairing dams that are prone to failure.	Public Works	Ongoing
	2012	A bank stabilization project on Turkey Creek from Commerce St to Calhoun St. was partially funded through NRCS and was completed in December 2011. This work will help prevent		Complete

		stream bank erosion and therefore maintain capacity of the channel.		
Goal # 5: Reduce the impact of wildfires on homes, buildings, critical facilities, and infrastructure.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High WF	Evaluate Areas Susceptible to Wildfires	Utilize GIS analysis to identify structures (homes and other buildings) that are in areas susceptible to wildfire.	EM & Planning Department	Ongoing
	2012	No formal survey has been completed at this time due to a lack of staff. However, the Planning Department has addressed data needs and expects to utilize information from the US Forest Service, NOAA, FEMA, and the Tax Assessor database to target areas that may be susceptible to wildfires.		2 years
Goal # 6: Reduce the impact of severe wind on homes, buildings, critical facilities, and infrastructure.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High H,T,WS,T S	Vegetation Management	Inspect and manage vegetation that could damage critical facilities if felled by wind.	EM & Public Works	12 Months
	2012	This is part of an ongoing process. As risks are identified they are dealt with by the responsible agency/organization.		Ongoing

Goal # 7: Reduce the impact of floods on homes, buildings, critical facilities, and infrastructure.

Priority	Name	Action/Progress	Responsible Party	Timeframe
High F	Drainage Ditch Maintenance	Implement a formal and regular drainage ditch and canal system maintenance program for storm water management.	Public Works	Ongoing
	2012	The city public works department removes obstructions in channels as necessary. Also, contract labor crews are used in October, November, and December each year to remove vegetation and debris from Turkey Creek and Shot Pouch Branch as well as other drainage ditches within the City Limits.		Ongoing
High F	Flood Threat Recognition Program	Determine the possibility of a flood threat recognition system that utilizes rain and stream gauges, along with a central gauge, to monitor and predict the occurrences of floods and flash floods	Public Works	Ongoing
	2012	The city does not see this as feasible due to the fact that the City is located at the headwaters of our drainage basin. Our local creeks and drainage canals rise very quickly in response to localized heavy rainfall but stream levels are not affected by rainfall events outside of Sumter County.		Complete
High F	Update Flood Maps	Encourage FEMA to update flood maps.	Planning Department	Ongoing
	2012	In April 2011 Members of the City/County Planning Department, Sumter County Mapping, and City and County Stormwater Departments participated in a discovery meeting with SCDNRC in regards to the FEMA Map Modernization Initiative and the Wateree Watershed Project. The planning Department provided information in both paper and digital format that detailed local infrastructure as well as priority areas and flooding event history in order to revise the local flood maps. We continue to support FEMA's efforts to obtain the most up to date and accurate maps for the purpose of flood zone determinations and property protection.		Ongoing

High F	Back Flow Prevention	Install back-flow prevention valves in sewer pipes.	Public Works	Ongoing
	2012	The city does not believe this is necessary in our current storm sewer system.		Complete
High F	Storm Water Management	Implement the mandatory storm water utility/tax.	Public Works	Ongoing
	2012	The city began collecting a monthly stormwater fee from City residents in July 2011. This fee is used to fund the City's MS4 program which includes the construction permitting program that ensures that runoff from new development does not exceed pre-development rates.		Complete/ Ongoing
Goal # 7: New Actions				
Priority	Name	Action/Progress	Responsible Party	Timeframe
Med F	Storm Water Management	Pilot mitigation projects for storm water ponds and wetlands at public parks and a public golf course to determine better ways to manage and protect natural storm water treatment and water quality management.	Planning & Public Works	Ongoing
	2012	The County, in cooperation with Carolina Clear Cooperative Extension, installed a rain garden at Patriot Park to capture and treat water from the parking lot and soccer fields. The City planted cypress trees in the Palmetto Park stormwater detention pond to improve appearance as well as improve water quality through nutrient uptake. The new Sumter Judicial Building incorporates a number of stormwater retention/detention devices. Three underground detention areas will collect stormwater from across the site, while five infiltration strips are being installed for the collection of parking lot run off for filtration.		Ongoing

High F	Data limitations, amended strategies to address issues	Fold information gleaned through the Comprehensive Plan update, the Hazard Mitigation Plan update, and the County-wide Watershed Study into a comprehensive floodplain management plan.	Planning	2 years
	2012	No progress has been made towards completing a Comprehensive Floodplain Management Plan at this point in time due to limited staff availability.		2 years
High F	Data limitations	Identify through GIS overlays areas coupled with building permit files where development has impacted floodplains and critical areas, and address future impacts through the comprehensive floodplain management plan.	Planning	2 years
	2012	New building permits are strictly regulated by the local Flood Damage Prevention Ordinance, which meets a higher standard than required by FEMA.		Ongoing
Med F	Data limitations	Track local flooding events through citizen participation and gathering information through coordination with Public Safety department and Public Works departments, coupled with data from federal sources (USGS, NOAA, etc.)	Planning	2 years
	2012	Due to staffing limitations only a small number of local flooding events have been documented.		Ongoing

Goal # 8: Ensure the protection and function of Communications.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High H,T,WS,T S	Inspection of Lines	An inspection of communication lines in order to determine what needs to be replaced, and to ensure that they are clear from tree limbs and other obstructions.	Provider	Ongoing
	2012	This is part of an ongoing process undertaken by individual providers.		Ongoing
Low A	Creation of Mobile Dispatch Unit	Create a mobile dispatch unit to ensure that communications are not lost as a result of a natural disaster.	City EM Director	Ongoing
	2012	The City of Sumter Police Department does in fact have a Mobile Command Post that is fully functional for communications, command post, special events operations established in 2011 for All-Hazards along with Emergencies. It is equipped with a generator, lights, radio, etc... to be self-sufficient. The Police Department Emergency Manager is responsible for maintenance and operation.		Complete
Low A	Retrofit and Relocate Communication System	Utility and communication systems supporting emergency services operations will be retrofitted or relocated to withstand the impact of a natural disaster.	Provider	Ongoing
	2012	The City of Sumter Police Department along with 911 Telecommunications and Fire have in fact established an Alternate PSAP that is operational and functional in lieu of an emergency, event, or natural disaster that necessitates relocation from the current law enforcement center. This location is equipped with a generator. The Sumter Law Enforcement Center is equipped with roll down shutters at the main entrance to the facility in lieu of a natural disaster preparation to minimize damages. The Sumter Emergency Communication services inclusive of Police/Sheriff, Fire, and EMS have out-lying towers that receive regular maintenance, management, and annual certifications. The City of Sumter is currently migrating to the "Cloud" which is an off-site storage of WYSE Clients enabling recoverable data in lieu of a natural disaster or other interruption.		Complete

Goal #9: Facilitate the preparedness of Emergency Response.				
Priority	Name	Action/Progress	Responsible Party	Timeframe
High A	Emergency Response Preparation Evaluation	Conduct a review of emergency response plans and programs to identify where additional activities are needed to respond to natural hazards.	EM	Ongoing
	2012	The Sumter County Emergency Operation Plan is updated annually.		Ongoing
Medium A	Emergency Response Preparation Equipment	Purchase any necessary equipment that is critical for the response to natural disasters and to ensure that personnel have adequate and up-to date training and the use of specific equipment.	EM	Ongoing
	2012	Regular training occurs on specialized equipment for both departments along with Emergency Management. Additionally, Emergency Management provides quarterly training on Web EOC. Maintaining readiness through proper training is an ongoing process.		Ongoing

The City and County Public Works Department, Stormwater Divisions, and Planning Department work closely to ensure all public projects fully meet the requirements of the Flood Damage Prevention Ordinance. County Emergency Management coordinates with City and County Police, Fire Departments and Emergency Services to procure funding through available grants to update equipment and provide training to insure minimal losses to life and property.

Floodplain Management

Each year as part of our Community Rating System activities, the Sumter City-County Planning Department notifies financial and insurance entities and property owners of the status of properties that lie within the floodplain and floodways.

Sumter County contains approximately 5392 individual parcels that lie in Special Flood Hazard Areas (SFHA). Each year the Planning Department sends notices to each of these property owners, informing them that their property is located in a mapped SFHA. Property owners are encouraged to call or visit the Floodplain Coordinator, who can provide site-specific information and advice on flood insurance, and mitigation and retrofitting options that can improve their ability to respond to natural disasters, and lessen property damage. Over a four week period after the mail out, staff answered telephone calls, informed property owners of the availability of flood insurance, and sent determination letters and maps showing their property in relation to the mapped Special Flood Hazard Areas.

The County Mapping Department maintains the latest DFIRM data, effective February 16, 2007, for all the floodplains in the City and County, in their GIS database. They make this data available to all City and County agencies across their network as well as online via the Sumter County website. The Planning Department maintains small scale paper maps and makes them available for viewing and printing through the City and County websites. These maps were last updated January 20, 2012.

The Planning Department maintains and regularly updates a GIS database that tracks all Letters of Map Amendment (LOMA) that have been issued in Sumter. Having these LOMAs available to all planning staff allows them to provide residents with the most up to date information concerning the state of their property in regards to the floodplain and insurance requirements.

The Planning and Building Departments coordinate permitting and inspections to ensure that improvements on properties located in Special Flood Hazard Areas are constructed in accordance with the Sumter Flood Damage Prevention Ordinance. We maintain records of all these activities and make this information available to contractors and property owners. The Planning Department works closely with each applicant for a building permit, a land disturbance permit, subdivision and site plan

approvals, and any type of development activity that is governed by the Flood Damage Prevention Ordinances. Staff answers questions, offers technical assistance, and makes site visits to assure compliance before final Certificate of Occupancy is given for all projects in located in Special Flood Hazard Areas.

In April 2011 Members of the City/County Planning Department, Sumter County Mapping, and City and County Stormwater Departments participated in a discovery meeting with SCDNRC in regards to the FEMA Map Modernization Initiative and the Wateree Watershed Project. The Planning Department provided information in both paper and digital formats that detailed local infrastructure as well as priority areas and flooding event history in order to revise the local flood maps. We continue to support FEMA's efforts to obtain the most up to date and accurate maps for the purpose of flood zone determinations and property protection.

At this time elements pertaining to the adoption of a Comprehensive Floodplain Management Plan have not been realized due to reduced staffing levels in the Planning Department.

Stormwater Management

In order to be compliant with activities mandated under the Metropolitan Small Area NPDES Stormwater Permit, the City of Sumter and Sumter County recently adopted and passed a Stormwater Utility Plan. Activities such as identification of all outlets and collection points for stormwater runoff, maintenance schedules, and public outreach and education have been substantially completed under this Plan. Future activities that will be required under the new permit are being anticipated and staff will be hired and trained in order to complete them when that becomes necessary.

All commercial and residential developments in both the City and the County are required to have an approved stormwater management plan that minimizes impacts to the floodplains in the 10-year storm event. The Planning and Public Works Departments completed the Sumter County Watershed Plan in order to provide an assessment of county-wide conditions and challenges that may be addressed through partnering and cooperation for the maximum benefits that may be realized by the public through more efficient stormwater management and floodplain protection. In addition to lowering flood losses, higher water quality is expected to result from the implementation of the Plan's recommended activities.

The Planning Department continues to implement the 2030 Comprehensive Plan, adopted in 2009. Elements pertaining to flood damage prevention, stormwater impacts and wetland mitigation, and open space preservation are contained within this document in the chapters on Natural Resources and Land Use. The Zoning Ordinance and the Flood Damage Prevention Ordinance are being

reviewed for possible updates in order to reflect newly-adopted policies and to implement some of the recommendations contained in the Sumter City-County 2030 Comprehensive Plan.

Whenever it offers a better way of addressing stormwater control and localized floodplain issues in our area, low-impact stormwater design and low-impact development (LID) are now presented as development options. Within a well-designed low-impact development, stormwater structures including rain gardens, bioswales, and water quality buffers result in a strategic layout designed to maximize the ability of the development to absorb and contain stormwater, thereby limiting the impacts to the nearby floodplains.

Sumter County partners with Clemson Extension through the Sumter Stormwater Solutions Program to coordinate a community wide approach to stormwater management through education and public involvement. The 2012 Adaptive Stormwater Education Plan lists forty-six separate activities, which specifically target the general public, youth, elected and appointed officials, professionals, homeowners, and commercial interests. These activities include public service announcements, mailings, workshops, and informational displays.

Meanwhile, City and County Staff charged with implementing and administering the regulations under the Flood Damage Prevention Ordinance, the Zoning Ordinance, and the Stormwater Ordinances are all working together to assure full compliance on all permitting activities and projects.

For credit under the Community Rating System, this report is being distributed to the media and made available to the public. It is being sent to representatives of the news media that report on Sumter County in their respective newspapers and media outlets. Copies of this report are available for review at Sumter City-County Planning Department, 12 W. Liberty Street, Sumter, SC 29151, and also at the Department of Public Safety, Sumter, SC 29151. In addition, notice of its availability is posted on the Planning Department's website.



Donna McCullum
Zoning Administrator / CRS Coordinator
Sumter County, South Carolina

1 October 2012

Date