

7 Mitigation Action Plans

Requirement §201.6(c)(3)(iii): [The mitigation strategy section shall include an] action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

This section provides the mitigation action plans for each participating jurisdiction. The plans are organized as follows:

- ▶ Alamance County
- ▶ City of Burlington
- ▶ City of Graham
- ▶ City of Mebane
- ▶ Town of Elon
- ▶ Town of Green Level
- ▶ Town of Haw River
- ▶ Town of Ossipee
- ▶ Town of Swepsonville
- ▶ Village of Alamance
- ▶ Durham County-Durham City
- ▶ Orange County
- ▶ Town of Carrboro
- ▶ Town of Chapel Hill
- ▶ Town of Hillsborough
- ▶ Person County-City of Roxboro

Note that both Durham County and the City of Durham as well as Person County and the City of Roxboro opted to coordinate on joint mitigation action plans. Additionally, several actions pursued by multiple Alamance County jurisdictions were carried forward but consolidated into the Alamance County Mitigation Action Plan. These projects will provide mitigation to all applicable jurisdictions, but the County is serving as the lead party responsible for implementation.

SECTION 7: MITIGATION ACTION PLANS

Table 7.1 – Mitigation Action Plan, Alamance County

Action #	Action Description	Applicable Jurisdictions	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention										
P-1	Direct each County office of agency to assess how it can better incorporate hazard mitigation goals into its planning and implementation of its duties	Alamance County	All Hazards	1.2	Moderate	Alamance County Emergency Management	County	2020-2025	Carry forward	Each department is working on a COOP plan and they will address hazard mitigation goals and planning into their duties.
P-2	Maintain shelter agreements with the American Red Cross	Alamance County	All Hazards	2.2	Moderate	Alamance County Emergency Management	County	2020-2025	Carry forward	Alamance County has taken on the responsibilities of opening and maintaining shelters on their own. ARC will be used as a backup if need.
P-3	Review methods of school construction to ensure that all new schools are constructed to the maximum cost feasible standards of wind resistance, flood resistance, and access so that they can be used as shelters for evacuees during and after natural hazard events.	Alamance County	All Hazards	1.2	Moderate	Alamance County Inspections Department	General Fund	2020-2025	Carry forward	No progress made due to administrative limitations. Our Inspections department will follow all guidelines on new projects.
P-4	Review the subdivision regulations and make appropriate changes to encourage alternatives to placing lots in flood-prone areas and to minimize impervious surface coverings, if necessary.	Alamance County	Flood	1.2	Moderate	Alamance County Planning Department	General Fund	2020-2025	Carry forward	Planning is still working on this. No progress has been made due to limited staff resources.
P-5	Propose a policy to the Board of Commissioners prohibiting the development of critical public facilities in the 100-year floodplain in cases where viable alternatives exist. Presently, most critical facilities located in the floodplain are waste pump stations because they must be located at low elevations because the handle gravity flowing sewage.	Alamance County, Town of Green Level, Town of Swepsonville	Flood	1.2	Moderate	Alamance County Planning Department	General Fund	2020-2025	Carry forward	Planning is still working on this. No progress has been made due to limited staff resources.
P-6	Develop specific regulations that prohibit dumping in the county's watersheds	Alamance County	Flood	1.1	Moderate	Alamance County Planning Department	Staff time	2020-2025	Carry forward	Planning is still working on this. No progress has been made due to limited staff resources.
P-7	When the county land use plan is complete, create a land use map with an overlay of flood hazards and any other natural hazards that can be mapped.	Alamance County	All Hazards	1.2	Moderate	Alamance County Emergency Management, Alamance County GIS Department	County	2020-2025	Carry forward	Land use study is still in progress. GIS planner will create this overlay when the land use study is completed. Where possible, local community land use mapping should be incorporated.
Property Protection										
PP-1	Look for opportunities to acquire or relocate structures vulnerable to floods	Alamance County	Flood	4.2	Low	Alamance County Emergency Management, Alamance County Planning Department	General Fund	2020-2025	New	EM monitors flood prone areas.
PP-2	Monitor structures affected by flood and track damages and repair costs. If damages and repair costs are high relative to the value of the structure, consider mitigation including elevation, acquisition, or floodproofing.	Alamance County	Flood	4.2	High	Alamance County Emergency Management, Alamance County Planning Department	General Fund	2020-2025	Carry forward	No progress was made on this project. The County will continue to monitor the county properties which are or may be impacted by flooding events.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Applicable Jurisdictions	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
PP-3	Monitor recreational facilities located in the floodplain and evaluate flood resistance of county structures.	Alamance County	Flood	4.2	Moderate	Alamance County Planning Department	General Fund	2020-2025	Carry forward	No progress was made on this project. The County will monitor the county properties which are or may be impacted by flooding events.
PP-4	Monitor reservoirs for potential flooding problems and note any unexpected flooding issues.	Alamance County	Flood	4.2	High	Alamance County Emergency Management	N/A	2020-2025	Carry forward	No progress was made on this project. The County will coordinate with Municipal watershed owners and operators to monitor levels and control of the dams and gates for flooding.
Structural Projects										
SP-1	Seek funding to the retrofit of critical facilities and County-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	Alamance County	All Hazards	4.2	Moderate	Alamance County Buildings and Inspections Department, Alamance County Planning Department, Alamance County Emergency Management	State grants, UHMA grants, other federal grants	2020-2025	Carry forward	No progress was made on this project due to limited funding. Will evaluate resilience needs and look for grants and resource funding to retrofit county facilities.
SP-2	Seek funding for the installation of backup generators or quick connect hook ups for mobile generators on any newly constructed and existing county critical facilities.	Alamance County	All Hazards	4.2	Moderate	Alamance County Buildings and Inspections Department, Alamance County Planning Department, Alamance County Emergency Management	Local, State grants, UHMA grants, other federal grants	2020-2025	New	Work to install a spare transfer switch to one of our local shelters.
Emergency Services										
ES-1	Coordinate with the North Carolina Department of Transportation (NCDOT) to maintain adequate and effective snow and ice removal plans by the towns/cities and NCDOT. "Adequate" means that all major thoroughfares are cleared and remain clear within 12 hours of last snowfall.	Alamance County, Town of Green Level, Town of Haw River, Town of Swepsonville	Severe Winter Weather	2.2	Moderate	Alamance County Emergency Management	Staff time	2020-2025	Carry forward	Attended local area DOT meetings and gathered updates on their snow and ice removal plans to ensure that they can adequately treat and plow roads.
Public Education & Awareness										
PEA-1	Encourage builders, developers, and architects to become familiar with the National Flood Insurance Program (NFIP) land use and building standards by attending annual workshops presented by the North Carolina Division of Emergency Management (NCEM). This can be accomplished by creating a mailing list and providing it to NCEM to use for its announcements. This task can be further supported by distributing copies of NCEM's announcements from the Alamance County Inspections Department when builders and developers apply for permits.	Alamance County, Town of Green Level, Town of Haw River, Town of Swepsonville	Flood	2.1	Moderate	Alamance County Emergency Management	General Fund	2020-2025	Carry forward	No progress was made on this project due to limited staff resources.
PEA-2	Encourage citizens and businesses/industries to develop emergency preparedness plans.	Alamance County, Town of Green Level	All Hazards	2.1	Moderate	Alamance County Emergency Management; Alamance County LEPC	LEPC	2020-2025	Carry forward	County EM has been working directly with local chemical facilities on developing Emergency Response Plans for 1st responder response.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Applicable Jurisdictions	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
PEA-3	Encourage homeowners to review insurance policies as part of an overall family disaster plan.	Alamance County	All Hazards	2.1	Moderate	Alamance County Emergency Management	N/A	2020-2025	Carry forward	No progress made on this project due to limited staff. Plan to add this to the Emergency Management website
PEA-4	Increase awareness of the natural hazards potential to local officials, the general public, and private industry.	Alamance County	All Hazards	2.1	Moderate	Alamance County Emergency Management	N/A	2020-2025	Carry forward	We have shared information via our website pertaining to preparation and planning for disasters.
PEA-5	Discourage the public and developers from developing property in flood zones.	Alamance County	Flood	1.2	Moderate	Alamance County Planning Department	General Fund	2020-2025	Carry forward	No progress made on this project due to limited staff.
PEA-6	Maintain documents about flood insurance, flood protections, floodplain management, and natural and beneficial functions of floodplains at the local libraries and government offices.	Alamance County	Flood	2.1	Moderate	Alamance County Planning Department	General Fund	2020-2025	Carry forward	No progress made on this project due to limited staff.
PEA-7	Maintain GIS system at www.alamance-nc.com. From this site anyone from a private citizen, builder, insurance company, etc. can see if a property is located in the 1-percent-annual-chance (100-year) floodplain.	Alamance County, Town of Haw River, Town of Ossipee, Town of Swepsonville, Village of Alamance	Flood	2.1	Moderate	Alamance County GIS Department	General Fund	2020-2025	Carry forward	The County Land Use plan is in progress and a land-use GIS layer is expected as a deliverable once the plan is complete.
PEA-8	Provide local real estate agents with handouts that will advise potential buyers to investigate the flood hazard for the property they are considering purchasing.	Alamance County,	Flood	2.1	Moderate	Alamance County Planning Department	Unknown	2020-2025	Carry forward	In Progress. Implementation delayed due to limited staff resources.
PEA-9	Educate citizens to listen for the watches and warnings issued by the National Weather Service	Alamance County, Town of Green Level, Town of Haw River, Town of Ossipee, Village of Alamance	All Hazards	2.2	Moderate	Alamance County Emergency Management	County	2020-2025	Carry forward	The County has utilized our website and social media outlets to share information to the public and local municipalities on listening to and having a warning system in the home. The County is now working with hearing impaired and distributing hearing impaired weather alert radios devices to those who request them.
PEA-10	Maintain Alamance County Communications' capability to monitor weather conditions and advise all emergency services regarding watches and warnings.	Alamance County,	Flood	2.2	Moderate	Alamance County Emergency Management	County	2020-2025	Carry forward	We have updated our Nixle alert system and are promoting personnel to sign up for the service. Will continue to monitor and push weather information to PSAP's and other Emergency Services in the county to keep them aware of impending weather.

SECTION 7: MITIGATION ACTION PLANS

Table 7.2 – Mitigation Action Plan, City of Burlington

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Discourage the public and developers from developing property in flood zones.	Flood	1.2	Moderate	City of Burlington Building and Inspections	General fund	2020-2025	Carried Forward	The City works with developers and property owners on a case-by-case basis.
P-2	Adopt policy prohibiting the development of critical public facilities in the 100-year floodplain in cases where viable alternatives exist.	Flood	1.2	Moderate	City of Burlington Building and Inspections	General fund	2020-2025	Carried Forward	This activity is ongoing. This is not an adopted policy, but the City of Burlington Floodplain Manager oversees construction and acquisition of property in flood-prone areas. It is not the policy of the City to place critical systems in areas subject to flooding.
P-3	Expand the City's Geographic Information System (GIS) capabilities to include more hazard specific information.	All Hazards	1.2	Moderate	City of Burlington GIS Division	Staff time	2020-2025	Carried Forward	This activity is ongoing and continually evaluated for effectiveness and modified as needed. Current capability includes the ability to define hazard areas from historical data as well as the ability to project potential areas of concern. The City will also continue to monitor opportunities to enhance GIS technologies and appropriate datasets for hazard mitigation planning.
P-4	Continue the City's participation in the National Flood Insurance Program (NFIP) so citizens are eligible for flood insurance.	Flood	1.2	Moderate	City of Burlington Building and Inspections	General fund	2020-2025	Carried Forward	The City maintained active participation in the NFIP.
P-5	Request that each City department/office assess how it can better incorporate hazard mitigation goals into its separate planning processes and/or implementation of its duties.	All Hazards	1.2	Moderate	City of Burlington Office of Emergency Management	City funds	2020-2025	Carried Forward	Informal assessments completed. No formal documentation developed yet due to limited administrative resources.
P-6	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Wildfire	2.2	Moderate	City of Burlington Fire Department, City of Burlington Water Department	Staff time	2020-2025	Carried Forward	This activity is ongoing based on regular maintenance schedules and is continually evaluated for effectiveness and modified as needed.
P-7	Develop a detailed hazard assessment for dams in Alamance County and add to county hazard mitigation plan.	Dam Failure	3.2	Moderate	City of Burlington Office of Emergency Management	Local, County	2020-2025	Carried Forward	Dam failure is included in this plan update and will continue to be evaluated in future updates.
Property Protection									
PP-1	Monitor structures affected by flood and track damages and repair costs. If damages and repair costs are high relative to the value of the structure, consider mitigation including elevation, acquisition, or floodproofing.	Flood	4.2	High	City of Burlington Office of Emergency Management, City Planning Department	General fund	2020-2025	Carried Forward	This activity was implemented as needed following hazard events. The City has the capability to conduct damage assessments with assistance from the County and the State.
PP-2	Monitor recreational facilities located in the floodplain and evaluate flood resistance of city structures.	Flood	4.2	Moderate	City of Burlington, City Planning Department	General fund	2020-2025	Carried Forward	No progress made due to limited administrative resources.
PP-3	Monitor reservoirs, lakes, and streams for potential flooding problems and note any unexpected flooding issues.	Flood	1.1	High	City of Burlington	N/A	2020-2025	Carried Forward	All reservoirs and water sources located throughout the city have been processed by various companies (i.e. dam review, etc.). City of Burlington reservoirs are assessed each year for potential problems as well as security issues.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Structural Projects									
SP-1	Retrofit critical facilities and City-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	City of Burlington Building and Inspections, Office of Emergency Management, City Planning Department	Internal staff time	2020-2025	Carried Forward	No progress made due to fiscal limitations.
SP-2	Install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities.	All Hazards	4.2	Moderate	City of Burlington Building and Inspections, Office of Emergency Management, City Planning Department	Local, State grants, UHMA grants, other federal grants	2020-2025	Carried Forward	No progress made due to fiscal limitations. The City will continue to seek funding to install backup generators as needed for new facilities.
Emergency Services									
ES-1	Meet annually with State Forester for Alamance County to improve coordination of wildfire control and response.	Wildfire	3.2	Moderate	City of Burlington Fire Department	Staff time	2020-2025	Carried Forward	This activity is implemented annually.
Public Education & Awareness									
PEA-1	Encourage builders, developers, and architects to become familiar with the National Flood Insurance Program (NFIP) land use and building standards by attending annual workshops presented by the North Carolina Division of Emergency Management (NCEM).	Flood	1.2	Moderate	City of Burlington Building and Inspections, City of Burlington Office of Emergency Management	General fund	2020-2025	Carried Forward	No progress made due to limited staff resources.
PEA-2	Encourage homeowners to review insurance policies as part of an overall family disaster plan.	All Hazards	2.1	Moderate	City of Burlington Office of Emergency Management	Staff time	2020-2025	Carried Forward	In Progress. The City gives presentations to HOAs and neighborhood groups and distributes literature.
PEA-3	Increase awareness of the natural hazards potential to local officials, the general public, and private industry.	All Hazards	2.1	Moderate	City of Burlington Office of Emergency Management, Burlington Office of Public Information	Staff time	2020-2025	Carried Forward	This activity is ongoing and continually evaluated for effectiveness and modified as needed. Recent outreach methods include giving presentations and maintaining a presence at public events.
PEA-4	Maintain documents about flood insurance, flood protection, floodplain management, and natural and beneficial functions of floodplains at the local libraries and government offices.	Flood	2.1	Low	City of Burlington, Alamance County Planning Department	N/A	2020-2025	Carried Forward	This activity is ongoing. The City will continue to support maintaining these materials at local libraries and government offices.
PEA-5	Provide local real estate agents with handouts that will advise potential buyers to investigate the flood hazard for the property they are considering purchasing.	Flood	2.1	Low	City of Burlington, City Planning Department	Unknown	2020-2025	Carried Forward	No new resources were developed due to limited staff and fiscal resources.
PEA-6	Educate citizens to listen for the watches and warnings issued by the National Weather Service.	All Hazards	2.2	Moderate	City of Burlington Office of Emergency Management	County	2020-2025	Carried Forward	The City of Burlington Office of Emergency Management conducted annual presentations to Burlington Housing authority, Burlington Senior center, and Burlington Community network and has maintained a presence at local community events such as the annual Carousel Festival. Presentations include NWS information as well as inclement and hazardous weather planning/preparation.

SECTION 7: MITIGATION ACTION PLANS

Table 7.3 – Mitigation Action Plan, City of Graham

Action #	Action Description	Hazard(s) Addressed	Goal Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Review methods of school construction to ensure that all new schools are constructed to the maximum cost feasible standards of wind resistance, flood resistance, and access so that they can be used as shelters for evacuees during and after natural hazard events.	Flood	1.2	Moderate	City of Graham	General fund	2022	Carried forward	The City of Graham Planning Department reviews plans for all new and existing structures for this. The City of Graham currently has one charter school under construction and will reach out to them regarding use as a shelter.
P-2	Propose a policy prohibiting the development of critical public facilities in the 100-year floodplain in cases where viable alternatives exist. Presently, most critical facilities located in the floodplain are waste pump stations because they must be located at low elevations because they handle gravity flowing sewage.	Flood	1.2	Moderate	City of Graham Public Works Department	General fund	2024	Carried forward	The City is currently moving our most at-risk pump station (Boyd Creek) out of the floodplain.
P-3	Consider expanding the County's Geographic Information System (GIS) capabilities to include maintaining Elevation Certificates in a computer database.	Flood	1.2	Moderate	Alamance County GIS Department	Staff time, General fund	2023	Carried forward	Graham has centralized our Floodplain permitting and Elevation Certificates such that they are ready when requested.
P-4	Continue City of Graham's participation in the National Flood Insurance Program (NFIP) so citizens are eligible for flood insurance.	Flood	1.2	Moderate	City of Graham	General fund	2020	Carried forward	Graham complied with the most recent update of the regulations and maps and will adopt language to allow for the 'most current map' to rule as part of our 160D update.
P-5	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Wildfire	2.2	Moderate	City of Graham Fire Department	Staff time	2025	Carried forward	No progress reported due to administrative barriers. Timeline based on Rating Schedule dictated by Office of State Fire Marshal.
Property Protection									
PP-1	Monitor recreational facilities located in the floodplain and evaluate flood resistance of county structures.	Flood	4.2	Moderate	City of Graham Public Works Department	Staff time	2022	Carried forward	Graham will continue to monitor. A new route to the Wastewater Treatment Plant was installed in 2019 to provide access outside of the floodplain.
PP-2	Monitor reservoirs, lakes, and streams for potential flooding problems and note any unexpected flooding issues.	Flood	4.2	Moderate	City of Graham/ Alamance County EM	General fund	2025	Carried forward	Dam repairs were completed at reservoir in 2020. Graham will continue to monitor.
Structural Projects									
SP-1	Seek funding to the retrofit of critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	City Buildings and Inspections Department, City Planning Department, City Emergency Services	Local, State grants, federal grants	2025	Carried forward	The City of Graham has begun to use smart meters to detect leaks throughout the city and re-ran electrical lines underground to City Hall to increase reliability.
SP-2	Seek funding for the installation of backup generators or quick connect hook ups for mobile generators on any newly constructed and existing county critical facilities.	All Hazards	4.2	Moderate	City Buildings and Inspections Department, City Planning Department, City Emergency Services	Local, State grants, federal grants	2020	Completed	City Hall, Police Department, Fire Department, Water Treatment, Wastewater Treatment, and our pump stations are now all covered by back-up generators. Additional facilities to be identified.
Emergency Services									
ES-1	Meet annually with State Forester for Alamance County to improve coordination of wildfire control and response.	Wildfire	3.2	Moderate	City of Graham	General fund	2021	Carried forward	No progress due to staff limitations. New Fire Chief will reach back out to State Forester and reestablish this link.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
ES-2	Coordinate with the North Carolina Department of Transportation (NCDOT) to maintain adequate and effective snow and ice removal plans by the towns/cities and NCDOT. "Adequate" means that all major thoroughfares are cleared and remain clear within 12 hours of last snowfall.	Severe Winter Weather	2.2	Moderate	City of Graham	General fund	2023	Carried forward	Limited progress due to administrative barriers. It has been difficult to get a response from NCDOT for snow clearing of specific routes. The City continues to reach out and attempt to take over some primary routes.
Public Education & Awareness									
PEA-1	Encourage builders, developers, and architects to become familiar with the National Flood Insurance Program (NFIP) land use and building standards by attending annual workshops presented by the North Carolina Division of Emergency Management (NCEM). This can be accomplished by creating a mailing list and providing it to NCEM to use for its announcements. This task can be further supported by distributing copies of NCEM's announcements from the Alamance County Inspections Department when builders and developers apply for permits.	Flood	2.1	Moderate	City of Graham	General fund	2025	Carried forward	The City of Graham works with Alamance County to ensure that developers are up-to-date when applying for permits and by attending workshops. City staff attends CFP trainings, and reviews all NFIP regulations.
PEA-2	Encourage citizens and businesses/industries to develop emergency preparedness plans.	All Hazards	2.1	Moderate	City of Graham	General fund	2023	Carried forward	No progress reported due to limited staff resources. The City will maintain an Emergency Preparedness page on the City website in conjunction with the County to help inform local residents.
PEA-3	Encourage homeowners to review insurance policies as part of an overall family disaster plan.	All Hazards	2.1	Moderate	City of Graham	General fund	2023	Carried forward	No progress reported due to limited staff resources. The City will maintain an Emergency Preparedness page on the City website in conjunction with the County to help inform local residents.
PEA-4	Increase awareness of the natural hazards potential to local officials, the general public, and private industry.	All Hazards	2.1	Moderate	City of Graham	General fund	2022	Carried forward	The usage of NIXLE has increased awareness of the frequency of hazards. The City will continue to push notifications regarding hazardous weather over this and other media.
PEA-5	Discourage the public and developers from developing property in flood zones.	All Hazards	1.2	Moderate	City of Graham	General fund	2025	Carried forward	Graham adopted a 2' above base flood elevation building requirement to decrease development potential of flood zones.
PEA-6	Maintain documents about flood insurance, flood protections, floodplain management, and natural and beneficial functions of floodplains at the local libraries and government offices.	Flood	2.1	Moderate	City of Graham	General fund	2025	Carried forward	Documents are made available at City Hall.

SECTION 7: MITIGATION ACTION PLANS

Table 7.4 – Mitigation Action Plan, City of Mebane

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Maintain Shelter Agreements with the American Red Cross	All Hazards	2.2	Moderate	Alamance County/ City	General Fund	2020-2025	Carried Forward	This is in the CIP for the shelter in Mebane.
P-2	Expand the County's GIS Capabilities to Include Maintaining Elevation Certificates	Flood	2.2	Moderate	Alamance County/ City	Staff Time	2020-2025	Carried Forward	County maintains GIS but City maintains elevation certificates available to county upon request.
P-3	Continue the City of Mebane's participation in the National Flood Insurance Program	Flood	1.2	Moderate	City	Staff Time	2020-2025	Carried Forward	The City has maintained compliance with the NFIP and will continue to do so as part of plan review and permitting process.
P-4	Monitor Reservoirs, Lakes, and Streams for Potential Flooding Problems and Note any Unexpected Flooding Issues	Flood	1.2	Moderate	City	Staff Time	2020-2025	Carried Forward	City has checked culverts and streams along outfalls ahead of large predicted storm events and cleared debris as necessary to prevent flooding. No major issues beyond maintenance needs have been noted.
P-5	Review All Fire Districts Coverage to Ensure there are Adequate Quantities of Water for Fire Fighting Purposes and that all Water Points are Maintained on a Regular Basis	Wildfire	2.2	Moderate	City	Staff Time	2020-2025	Carried Forward	OSFM conducted ISO inspections in 2018. Will review with OSFM upon next inspection.
P-6	When County Land Use Plan is Complete, Create a Land Use Map with an Overlay for Flood Hazards and any Other Natural Hazards	All Hazards	1.2	Moderate	City	General Fund	2020-2022	Carried Forward	Land use plan completed locally. County has flood hazard on the County GIS. Will look to provide additional mapping as data becomes available.
Property Protection									
PP-1	Monitor Structures Affected by Flood and Track Damages and Repair Costs.	Flood	4.2	Low	City	Hazard Mitigation Grants	2020-2025	Carried Forward	No progress to report due to low priority. City owned structures will be monitored and tracked. Private structures will be tracked by building permits.
Structural Projects									
SP-1	Seek funding to retrofit critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	City	State Grants, UHMA Grants, other federal grants	2020-2025	Carried Forward	As buildings are upgraded, we will look into retrofitting facilities with the latest technology. Many facilities have backup generators installed and low water consumption fixtures.
SP-2	Seek funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities	All Hazards	4.2	Moderate	City	Local, State Grants, UHMA Grants, other federal grants	2020-2025	Carried Forward	Backup generators have now been installed at nearly all existing facilities. All new construction facilities will be evaluated as part of plan review.
Emergency Services									
ES-1	Meet Annually with State Forester for Alamance County to Improve Coordination of Wildfire Control and Response	Wildfire	3.2	Moderate	City	Staff Time	2020-2025	Carried Forward	No progress due to limited staff resources. Fire department to meet annually with State forester to coordinate Wildfire Control and Response.
ES-2	Coordinate with the NCDOT to Maintain Adequate and Effective Snow Removal Plans by Cities and NCDOT	Severe Winter Weather	3.1	Moderate	Public Works	General Fund	2020-2021	Carried Forward	In process with a municipal agreement with the NCDOT.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Public Education & Awareness									
PEA-1	Encourage Familiarity with National Flood Insurance Program (NFIP)	Flood	2.1	Moderate	Planning, Zoning and Inspections	Staff Time	2020-2025	Carried Forward	No new progress to report due to limited administrative resources. Will continue existing outreach as part of plan review and permitting process.
PEA-2	Encourage Citizens and Businesses to Develop Emergency Preparedness Plans	All Hazards	2.1	Moderate	City	Staff Time	2020-2025	Carried Forward	No progress made due to administrative limitations. Will place information on the website encouraging development of emergency preparedness plans.
PEA-3	Encourage Homeowners to Review Insurance Policies as Part of an Overall Family Disaster Plan	All Hazards	2.1	Moderate	City	Staff Time	2020-2025	Carried Forward	Educational material is posted on website/handouts
PEA-4	Increase Awareness of the Natural Hazards Potential to Officials, Public and Industry	All Hazards	2.1	Moderate	City	Staff Time	2020-2025	Carried Forward	Code Red information is placed on the City's website. Citizens are informed by Code Red notifications as hazards arise.
PEA-5	Provide Local Real Estate Agents with Handouts that Will Advise Potential Buyers to Investigate the Flood Hazards for the Property Under Consideration	Flood	2.1	Low	City	Staff Time	2020-2025	Carried Forward	Planning department provides information to agents and developers.

SECTION 7: MITIGATION ACTION PLANS

Table 7.5 – Mitigation Action Plan, Town of Elon

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Review methods of school construction to ensure that all new schools are constructed to the maximum cost feasible standards of wind resistance, flood resistance, and access so that they can be used as shelters for evacuees during and after natural hazard events.	All Hazards	1.2	High	Alamance County, Town of Elon	Elon University	2020-2025	Carried forward	Completed and continuing ongoing implementation. Elon University donated and built a new Elementary school for the residents of Elon and surrounding community. Built in 2019. Estimated cost \$19m.
P-2	Consider adopting a policy prohibiting the development of critical public facilities in the 100-year floodplain in cases where viable alternatives exist. Presently, most critical facilities located in the floodplain are waste pump stations because they must be located at low elevations because they handle gravity flowing sewage.	Flood	1.2	Moderate	Town of Elon Public Works Department, Town of Elon Planning Department	General Fund	2020-2025	Carried forward	Completed and continuing ongoing implementation. The Town of Elon Public Works along with Town of Elon Planning(TRC) coordinate an inventory of all public facilities and identify the facilities that are within the 100 year floodplain-if any.
P-3	Expand the County's Geographic Information System (GIS) capabilities to include maintaining Elevation Certificates in a computer database.	Flood	1.2	Moderate	Alamance County, Town of Elon	General Fund	2020-2025	Carried forward	Completed and continuing ongoing implementation. The Town of Elon works in conjunction with Alamance Co. GIS in computer based driven software on this.
P-4	Continue Town of Elon's participation in the National Flood Insurance Program (NFIP) so citizens are eligible for flood insurance.	Flood	1.2	Moderate	Town of Elon	General Fund	2020-2025	Carried Forward	Completed and continuing ongoing implementation. Elon actively participates in the NFIP for its citizens.
P-5	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Wildfire	2.2	Moderate	Alamance County, Town of Elon Fire Department	General Fund	2020-2025	Carried forward	Completed and continuing ongoing implementation. Town of Elon contracts with 3rd party testing company to model and project needed water supplies for firefighting and domestic use on a yearly basis to keep up with growth and to help with FD ISO rating. Estimated cost \$10,000.
P-6	When the county land use plan is complete, create a land use map with an overlay of flood hazards and any other natural hazards that can be mapped.	All Hazards	1.2	Moderate	Town of Elon	N/A	2020-2025	Carried forward	Completed and continuing ongoing implementation. Town participated with Alamance Co EM on flood mapping. Mapping was completed in 2015-2016.
P-7	Direct Town of Elon to assess how it can better incorporate hazard mitigation plan goals and objectives into its planning and implementation of its duties with the County's plans.	All Hazards	1.2	Moderate	Alamance County/Town of Elon	General Fund	2020-2025	New	
Property Protection									
PP-1	Monitor reservoirs, lakes, and streams for potential flooding problems and note any unexpected flooding issues.	Flood	1.2	Moderate	Town of Elon, Alamance County	N/A	2020-2025	Carried forward	Completed and continuing ongoing implementation. No new flood risks were identified in the last five years, but the Town and the County will continue to monitor for any new potential flood issues within the area.
Structural Projects									
SP-1	Seek funding to the retrofit of critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	Town Buildings and Inspections Department, Town Planning Department, Town Emergency Services	General Fund, Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	The Towns TRC committee together with plans review have been able to review and approve all new construction builds from 2015-2020 particularly with new construction at Elon University with backup generators (where applicable and required by the NC Fire Code) along with fire resistant materials, wind retrofits and upgrades, as well as 911 communications requirements in buildings for effective radio transmissions.
Emergency Services									
ES-1	Meet annually with State Forester for Alamance County to improve coordination of wildfire control and response.	Wildfire	3.2	Moderate	Alamance County, Town of Elon Fire Department	NA	2020-2025	Carried forward	The Town of Elon FD conducts monthly meeting with the local arson task force and topics such as wildland fires are discussed occasionally with local FS Rep.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
ES-2	Coordinate with the North Carolina Department of Transportation (NCDOT) to maintain adequate and effective snow and ice removal plans by the towns/cities and NCDOT. "Adequate" means that all major thoroughfares are cleared and remain clear within 12 hours of last snowfall.	Severe Winter Weather	2.2	Moderate	Town of Elon	General Fund	2020-2025	Carried forward	The Town's Public Works Department provided completed snow removal from the Towns streets during every snow storm from 2015-2020. This was for any storm which produced enough precipitation to cover the roads and maintained them clear.
Public Education & Awareness									
PEA-1	Encourage builders, developers, and architects to become familiar with the National Flood Insurance Program (NFIP) land use and building standards by attending annual workshops presented by the North Carolina Division of Emergency Management (NCEM). This can be accomplished by creating a mailing list and providing it to NCEM to use for its announcements. This task can be further supported by distributing copies of NCEM's announcements from the Alamance County Inspections Department when builders and developers apply for permits.	Flood	1.2	Moderate	Town of Elon	General Fund	2020-2025	Carried forward	The Town of Elon along with Alamance County provides this information during the Town's Technical Review Committee meetings with contractors, architects, etc. The Town continues to provide this information to the institutions with the most development activity such as Elon University, Blakey Hall and Twin Lakes Retirement Centers. A link to the Flood Damage Prevention Ordinance has been placed on the Town's website.
PEA-2	Encourage citizens and businesses/industries to develop emergency preparedness plans.	All Hazards	2.1	Moderate	Town of Elon	General Fund	2020-2025	Carried forward	The Town will continue to coordinate efforts to meet with the major institutions and businesses (Elon University, Twin Lakes, Blakey Hall, Labcorp, Carolina Biological, Sonoco, and Engineering Controls) to encourage continued development of their plans as their operations expand.
PEA-3	Encourage homeowners to review insurance policies as part of an overall family disaster plan.	All Hazards	2.1	Moderate	Town of Elon	Staff Time	2020-2025	Carried forward	The Town of Elon FD's Emergency Management currently maintains an updated preparedness page on their website. This information will continue to be updated periodically to help inform town residents.
PEA-4	Increase awareness of the natural hazards potential to local officials, the general public, and private industry.	All Hazards	2.1	Moderate	Town of Elon	Staff Time	2020-2025	Carried forward	In the Town of Elon FD preparedness page on the Town's website and a link also is added to the Alamance Co. Emergency Preparedness website.
PEA-5	Maintain hazard mitigation plan and floodplain information on the Town's website (www.elonnc.com).	All Hazards	2.1	Moderate	Town of Elon	Staff Time	2020-2025	Carried forward	The website carries you to the Hazard Mitigation Plan, NFIP website, and flood damage prevention ordinance (which is already in the Planning Departments documentation for download).
PEA-6	Maintain documents about flood insurance, flood protections, floodplain management, and natural and beneficial functions of floodplains at the local libraries and government offices.	Flood	2.1	Moderate	Town of Elon, Alamance County	General Fund	2020-2025	Carried forward	The Town of Elon is the FEMA repository for all related documents within its jurisdiction. The Town also works closely in conjunction with Alamance County concerning flooding issues.
PEA-7	Maintain GIS system at www.alamance-nc.com. From this site anyone from a private citizen, builder, insurance company, etc. can see if a property is located in the 1-percent-annual-chance (100-year) floodplain.	Flood	2.1	Moderate	Alamance County	Staff Time	2020-2025	Carried forward	The Town provides a link on the Town's website to the County's GIS. The Town will continue to maintain this link.
PEA-8	Provide local real estate agents with handouts that will advise potential buyers to investigate the flood hazard for the property they are considering purchasing.	Flood	2.1	Moderate	Town of Elon	Staff Time	2020-2025	Carried forward	The Town provides links or info to the County GIS and NC FRIS website.
PEA-9	Educate citizens to listen for the watches and warnings issued by the National Weather Service	Flood	2.2	Moderate	Town of Elon	Staff Time	2020-2025	Carried forward	The Town of Elon in conjunction with Alamance Co. inform the residents via website as well as the countywide emergency alert system, Nixle, of upcoming warnings and watches.

SECTION 7: MITIGATION ACTION PLANS

Table 7.6 – Mitigation Action Plan, Town of Green Level

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Review the subdivision regulations and make appropriate changes to encourage alternatives to placing lots in flood-prone areas and to minimize impervious surface coverings, if necessary.	Flood	1.2	Moderate	Town of Green Level	Local	2020-2025	Carried forward	No progress was made due to administrative limitations.
P-2	Discourage the public and developers from developing property in flood zones.	Flood	1.2	Moderate	Town of Green Level	Local	2020-2025	Carried forward	No progress made due to administrative limitations.
P-3	Expand the County's Geographic Information System (GIS) capabilities to include maintaining Elevation Certificates in a computer database	Flood	1.2	Low	Alamance County	Local, County	2020-2025	Carried forward	The Town now maintains ECs, but they are not yet made available on the County's GIS website.
P-4	Continue the Town of Green Level's participation in the National Flood Insurance Program (NFIP) so citizens are eligible for flood insurance.	Flood	1.2	Moderate	Town of Green Level	Local, County	2020-2025	Carried forward	The Town has remained an active participant in the NFIP.
P-5	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Wildfire	2.2	Moderate	Town of Green Level, Town of Haw River	Local, County	2020-2025	Carried forward	No progress was made due to administrative limitations.
P-6	When the county land use plan is complete, create a land use map with an overlay of flood hazards and any other natural hazards that can be mapped.	All Hazards	1.2	Moderate	Town of Green Level	Local, County	2020-2025	Carried forward	County land use plan is now under development.
Structural Projects									
SP-1	Seek funding to the retrofit of critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	Town Buildings and Inspections Department, Town Planning Department, Town Emergency Services	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	No progress was made due to limited administrative and fiscal resources.
SP-2	Seek funding for the installation of backup generators or quick connect hook ups for mobile generators on any newly constructed and existing county critical facilities.	All Hazards	4.2	Moderate	Town Buildings and Inspections Department, Town Planning Department, Town Emergency Services	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	No progress was made due to limited administrative and fiscal resources.
Emergency Services									
ES-1	Meet annually with State Forester for Alamance County to improve coordination of wildfire control and response.	Wildfire	3.2	Moderate	Town of Green Level, Town of Haw River	Local, County	2020-2025	Carried forward	No progress was made due to limited staff resources.
Public Education & Awareness									
PEA-1	Encourage residents to sign up for the countywide emergency notification system. Greater awareness of hazard events will help make residents more aware of their risks and encourage them to take preparedness and property protection actions to mitigate their individual hazard risk.	All Hazards	2.1	Moderate	Town of Green Level	Local	2020-2025	New	

SECTION 7: MITIGATION ACTION PLANS

Table 7.7 – Mitigation Action Plan, Town of Haw River

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Expand the County's Geographic Information System (GIS) capabilities to include maintaining Elevation Certificates in a computer database.	Flood	1.2	Moderate	Alamance County GIS Department	Local, County	2020-2025	Carried forward	The Town of Haw River now maintains ECs and will work in conjunction with Alamance County GIS Department to make them available in a computer database.
P-2	Continue Town of Haw River's participation in the National Flood Insurance Program (NFIP) so citizens are eligible for flood insurance.	Flood	1.2	Moderate	Town of Haw River	Local	2020-2025	Carried forward	The Town of Haw River has participated in the NFIP Program since 07/18/1975.
P-3	When the county land use plan is complete, create a land use map with an overlay of flood hazards and any other natural hazards that can be mapped.	All Hazards	1.2	Moderate	Town of Haw River	Local, County	2020-2025	Carried forward	The Town is now working on a new comprehensive plan to be completed in Fall 2020. Once complete, the Town can work to provide GIS land use data to the County. The Town of Haw River works in conjunction with Alamance County GIS Department on mapping.
P-4	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Wildfire	2.2	Moderate	Town of Haw River Fire Department	Local, County	2020-2025	Carried forward	Completed an interconnect with Graham to improve pressure for emergency response. The Town of Haw River has budgeted for a water/fire flow study to be completed by Hazen-Sawyer for the FY 2020-2021.
Property Protection									
PP-1	Monitor recreational facilities located in the floodplain and evaluate flood resistance of county structures.	Flood	4.2	Moderate	Town of Haw River Public Works Department	Local, County	2020-2025	Carried forward	Red Slide Park is in the floodplain and experiences regular flooding and has been closed on several occasions. Regular monitoring will continue.
PP-2	Monitor reservoirs, lakes, and streams for potential flooding problems and note any unexpected flooding issues.	Flood	4.2	Moderate	Town of Haw River	Local, County	2020-2025	Carried forward	The Town will continue to monitor flooding problems. Recent changes to potential flood issues include a mill property being redeveloped with a new river access point. This land will be privately maintained.
Structural Projects									
SP-1	Seek funding to the retrofit of critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	Town Buildings and Inspections Department, Town Planning Department, Town Emergency Services	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	Surge protection was installed for electrical equipment at Town Hall. The Town of Haw River will continue to look for grant money regarding upgrading critical facilities to improve resilience to all hazards and to improve energy usage.
SP-2	Seek funding for the installation of backup generators or quick connect hook ups for mobile generators on any newly constructed and existing county critical facilities.	All Hazards	4.2	Moderate	Town Buildings and Inspections Department, Town Planning Department, Town Emergency Services	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	Ongoing. The Town of Haw River has installed a back-up generator for Town Hall, the Fire Department, and the Civic Center. The generator is maintained on a regular basis. The Haw River Police Department will be purchasing a generator in the 2020-2021 Budget year using grant money. Most of our pump stations do have generators and we will continue to upgrade pump stations without generators when possible.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Emergency Services									
ES-1	Meet annually with State Forester for Alamance County to improve coordination of wildfire control and response.	Wildfire	3.2	Moderate	Town of Haw River Fire Department	Local, County	2020-2025	Carried forward	This has been performed annually with the Haw River Fire Chief and the Alamance County Fire Marshall's office.
Public Education & Awareness									
PEA-1	Encourage citizens and businesses/industries to develop emergency preparedness plans.	All Hazards	2.1	Moderate	Town of Haw River	Local	2020-2025	Carried forward	The Haw River Fire Department has continued to work with business owners on developing emergency response plans.
PEA-2	Encourage homeowners to review insurance policies as part of an overall family disaster plan.	All Hazards	2.1	Moderate	Town of Haw River, Alamance County	Local	2020-2025	Carried forward	The Haw River Fire Department continued to work with homeowners on developing family emergency plans.
PEA-3	Increase awareness of the natural hazards potential to local officials, the general public, and private industry.	All Hazards	2.1	Moderate	Town of Haw River	Local	2020-2025	Carried forward	The Haw River Fire Department continued to promote awareness on natural hazards through education at local schools.
PEA-4	Discourage the public and developers from developing property in flood zones.	All Hazards	1.2	Moderate	Town of Haw River	Local	2020-2025	Carried forward	No progress to report due to limited administrative capability. The Town of Haw River reviews all new development through the TRC process.
PEA-5	Maintain documents about flood insurance, flood protections, floodplain management, and natural and beneficial functions of floodplains at the local libraries and government offices.	Flood	2.1	Moderate	Alamance County, Town of Haw River	Local, County	2020-2025	Carried forward	The Town of Haw River works in conjunction with Alamance County GIS Department on this, and the Town is the repository for all flood documents
PEA-6	Encourage residents to sign up for the countywide emergency notification system. Greater awareness of hazard events will help make residents more aware of their risks and encourage them to take preparedness and property protection actions to mitigate their individual hazard risk.	All Hazards	2.1	Moderate	Town of Haw River	Local	2020-2025	New	

SECTION 7: MITIGATION ACTION PLANS

Table 7.8 – Mitigation Action Plan, Town of Ossipee

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Wildfire	2.2	Moderate	Town of Ossipee	Local, County	2020-2025	Carried forward	No progress was made due to limited administrative resources.
P-2	When the county land use plan is complete, create a land use map with an overlay of flood hazards and any other natural hazards that can be mapped.	All Hazards	1.2	Moderate	Town of Ossipee	Local, County	2020-2025	Carried forward	The County land use plan is now in the process of being developed.
Property Protection									
PP-1	Monitor reservoirs, lakes, and streams for potential flooding problems and note any unexpected flooding issues.	Flood	4.2	Moderate	Town of Ossipee	Local, County	2020-2025	Carried forward	No progress was made due to limited administrative resources.
Structural Projects									
SP-1	Seek funding to the retrofit of critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	Town of Ossipee	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	No progress was made due to lack of funding.
SP-2	Seek funding for the installation of backup generators or quick connect hook ups for mobile generators on any newly constructed and existing county critical facilities.	All Hazards	4.2	Moderate	Town of Ossipee	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	No progress was made due to lack of funding.
Emergency Services									
ES-1	Meet annually with State Forester for Alamance County to improve coordination of wildfire control and response.	Wildfire	3.2	Moderate	Town of Ossipee	Local, County	Annually	Carried forward	No progress was made due to limited administrative resources.
Public Education & Awareness									
PEA-1	Encourage homeowners to review insurance policies as part of an overall family disaster plan.	All Hazards	2.1	Moderate	Town of Ossipee	Local	2020-2025	Carried forward	No progress was made due to administrative limitations.
PEA-2	Increase awareness of the natural hazards potential to local officials, the general public, and private industry.	All Hazards	2.1	Moderate	Town of Ossipee	Local	2020-2025	Carried forward	No progress was made due to administrative and technical limitations.
PEA-3	Encourage residents to sign up for the countywide emergency notification system. Greater awareness of hazard events will help make residents more aware of their risks and encourage them to take preparedness and property protection actions to mitigate their individual hazard risk.	All Hazards	2.1	Moderate	Town of Ossipee	Local	2020-2025	New	

SECTION 7: MITIGATION ACTION PLANS

Table 7.9 – Mitigation Action Plan, Town of Swepsonville

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Review the subdivision regulations and make appropriate changes to encourage alternatives to placing lots in flood-prone areas and to minimize impervious surface coverings, if necessary.	Flood	1.2	Moderate	Town of Swepsonville	Local	2020-2025	Carried forward	No progress made due to administrative limitations
P-2	Continue Town of Swepsonville's participation in the National Flood Insurance Program (NFIP) so citizens are eligible for flood insurance.	Flood	1.2	Moderate	Town of Swepsonville	Local	2020-2025	Carried forward	The Town has maintained compliance with NFIP requirements for continued participation.
P-3	Develop specific regulations that prohibit dumping in the county's watersheds	Flood	1.1	Moderate	Town of Swepsonville	Local	2020-2025	Carried forward	No progress made due to administrative limitations
P-4	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Wildfire	2.2	Moderate	Town of Swepsonville	Local, County	2020-2025	Carried forward	No progress made due to administrative limitations
Property Protection									
PP-1	Monitor reservoirs, lakes, and streams for potential flooding problems and note any unexpected flooding issues.	Flood	4.2	Moderate	Town of Swepsonville	Local, County	2020-2025	Carried forward	No progress made due to administrative limitations
Structural Projects									
SP-1	Seek funding to the retrofit of critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	Town of Swepsonville	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	No progress made due to staff and funding limitations.
SP-2	Seek funding for the installation of backup generators or quick connect hook ups for mobile generators on any newly constructed and existing county critical facilities.	All Hazards	4.2	Moderate	Town of Swepsonville	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	No progress made due to staff and funding limitations.
Public Education & Awareness									
PEA-1	Encourage citizens and businesses/industries to develop emergency preparedness plans.	All Hazards	2.1	Moderate	Town of Swepsonville	Local	2020-2025	Carried forward	No progress made due to lack of administrative resources for outreach.
PEA-2	Encourage homeowners to review insurance policies as part of an overall family disaster plan.	All Hazards	2.1	Moderate	Town of Swepsonville	Local	2020-2025	Carried forward	No progress made due to lack of administrative resources for outreach.
PEA-3	Increase awareness of the natural hazards potential to local officials, the general public, and private industry.	All Hazards	2.1	Moderate	Town of Swepsonville	Local	2020-2025	Carried forward	No progress made due to lack of administrative resources for outreach.
PEA-4	Discourage the public and developers from developing property in flood zones.	All Hazards	1.2	Moderate	Town of Swepsonville	Local	2020-2025	Carried forward	No progress made due to lack of administrative resources for outreach.
PEA-5	Maintain documents about flood insurance, flood protections, floodplain management, and natural and beneficial functions of floodplains at the local libraries and government offices.	Flood	2.1	Moderate	Town of Swepsonville	Local	2020-2025	Carried forward	No progress made due to lack of administrative resources for outreach.

SECTION 7: MITIGATION ACTION PLANS

Table 7.10 – Mitigation Action Plan, Village of Alamance

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Continue to expand the County's Geographic Information System (GIS) capabilities to include maintaining Elevation Certificates in a computer database.	Flood	1.2	Moderate	Village of Alamance	Local, County	2020-2025	Carried forward	County now maintains ECs in a computer database. The Village will work to compile and provide ECs to the County.
P-2	Continue the Village of Alamance's participation in the National Flood Insurance Program (NFIP) so citizens are eligible for flood insurance.	Flood	1.2	Moderate	Village of Alamance	Local	2020-2025	Carried forward	The Village has maintained compliance with the NFIP
P-3	Review all fire districts coverage to ensure that there are adequate quantities of water for firefighting purposes and that all water points are maintained on a regular basis.	Wildfire	2.2	Moderate	Village of Alamance	Local, County	2020-2025	Carried forward	No progress made due to administrative limitations.
P-4	When the county land use plan is complete, create a land use map with an overlay of flood hazards and any other natural hazards that can be mapped.	All Hazards	1.2	Moderate	Village of Alamance	Local, County	2020-2025	Carried forward	The County land use plan is now under development.
Property Protection									
PP-1	Monitor reservoirs, lakes, and streams for potential flooding problems and note any unexpected flooding issues.	Flood	4.2	Moderate	Village of Alamance	Local	2020-2025	Carried forward	No progress made due to administrative limitations.
Structural Projects									
SP-1	Seek funding to the retrofit of critical facilities and Village-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	Village of Alamance	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	No progress made due to administrative and fiscal limitations.
SP-2	Seek funding for the installation of backup generators or quick connect hook ups for mobile generators on any newly constructed and existing county critical facilities.	All Hazards	4.2	Moderate	Village of Alamance	Local, State Grants, UHMA Grants, other potential federal grants	2020-2025	Carried forward	No progress made due to administrative and fiscal limitations.
Emergency Services									
ES-1	Meet annually with State Forester for Alamance County to improve coordination of wildfire control and response.	Wildfire	3.2	Moderate	Village of Alamance	Local, County	Annually	Carried forward	No progress reported
Public Education & Awareness									
PEA-1	Encourage homeowners to review insurance policies as part of an overall family disaster plan.	All Hazards	2.1	Moderate	Village of Alamance	Local	2020-2025	Carried forward	No progress made due to administrative limitations.
PEA-2	Increase awareness of the natural hazards potential to local officials, the general public, and private industry.	All Hazards	2.1	Moderate	Village of Alamance	Local	2020-2025	Carried forward	No progress made due to administrative limitations.
PEA-3	Maintain hazard mitigation plan and floodplain information on the Village's website.	All Hazards	2.1	Moderate	Village of Alamance	Local	2020-2025	Carried forward	No progress made due to administrative limitations.

SECTION 7: MITIGATION ACTION PLANS

Table 7.11 – Mitigation Action Plan, Durham County-Durham City

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Implement a Stormwater Utility Fee for all properties within the unincorporated areas of Durham County.	All Hazards	1.2	High	County Engineering and Environmental Services	Fee funded, staff time; estimated cost \$300,000	August 2020	New	The County will implement a stormwater utility fee to collect funds to ensure the County has resources to implement projects throughout the unincorporated areas of the County to meet the future Falls Lake and Jordan Lake rules. Estimated cost includes consultant costs for data development, rate development, public education, and full implementation of the new fee.
Property Protection									
PP-1	Seek funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed County or City critical facilities	All Hazards	4.2	Moderate	Buildings and Inspections Department, Planning Department, Emergency Services	Local, State grants, UHMA grants, other federal grants	2020-2025	Carried forward	No new generators installed in last five years due to competing priorities.
Natural Resource Protection									
NRP-1	Identify and obtain additional properties to increase protected open space as a land-use tool to reduce adverse impacts from floods.	Flood	1.2	Moderate	City-County Planning Department	HMGP or PDM with local or State match	2020-2025	Carried forward	Acquisition and elevation projects are in progress in the City. City and County will work to identify more properties to pursue additional acquisitions.
Structural Projects									
SP-1	Seek funding to retrofit critical facilities and City- and County-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	Buildings and Inspections Department, Planning Department, Emergency Services	Local, State grants, UHMA grants, other federal grants	2020-2025	Carried forward	No retrofits were completed due to competing priorities and funding limitations. A new police department headquarters and emergency communications center was completed and opened in 2018 and incorporated resilient design including hurricane-resistant glass and low energy consumption features. City and County will work to identify existing facilities in need of retrofits.

SECTION 7: MITIGATION ACTION PLANS

Table 7.12 – Mitigation Action Plan, Orange County

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Continue implementation of the Orange County 2030 Comprehensive Plan	All Hazards	1.1	Moderate	Orange County Planning and Inspections Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	This action is in progress and Orange County Planning staff continues to implement the 2030 Comprehensive Plan. Updates to the Comprehensive Plan may take place within the next 5 years or may result from the 2020 Census, however, at this time staff is not positive if/when that may actually occur.
P-2	Continue participation in the Community Rating System (CRS) and annual recertification in order to increase public safety, reduce property damage, avoid economic loss, and allow for a decrease in flood insurance premiums for Orange County residents.	Flood, Hurricane and Tropical Storm	1.1	High	Orange County Planning and Inspections Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	For 2015 the Orange County CRS rating was an 8. Since 2016 the CRS rating for Orange County has been a 6. Last recertification date was September 16, 2019.
P-3	Continue to enforce floodplain regulations through the county's Special Flood Hazard Area (SFHA) Overlay District contained within the Orange County Unified Development Ordinance and continue training efforts for the Certified Floodplain Manager (CFM).	Flood, Hurricane and Tropical Storm	1.2	High	Orange County Planning and Inspections Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	Orange county continues to enforce floodplain regulations through the County's Special Flood hazard Area Overlay District contained within the Orange county Unified Development ordinance. Michael Harvey is the Orange County Floodplain Manager and he is credentialed as a Certified Floodplain Manager (CFM) as of 2009.
P-4	Continue to collaborate and support municipal mitigation strategies	All Hazards	3.2	Moderate	Orange County Emergency Services	General Fund (existing staff salaries)	2020-2025	New	
P-5	Engage in assessments of local supply chain resiliency for critical commodities	Drought	3.1	Moderate	Orange County Emergency Services; Orange County Sustainability	General Fund (existing staff salaries)	2020-2025	New	
P-6	Continue to develop, review, update, and implement recommendations in local and regional plans to improve the reliability, redundancy, and resiliency of water resources (water, wastewater, reclaimed water).	All Hazards	3.1	Moderate	OWASA, Orange County Planning and Inspections Department	CIP and Operating Budgets	2020-2025	New	
Property Protection									
PP-1	Continue enforcement of the North Carolina State Building Code.	All Hazards	1.2	High	Orange County Planning and Inspections Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	Currently operating under the 2018 edition of the NC State Building Codes and 2017 edition of the National Electrical Code. Updated every 6 years and next scheduled update is January 2025.
PP-2	Continue participation in the National Flood Insurance Program (NFIP) to reduce the impact of a future flood event, mitigate effects of flooding, and allow citizens to be eligible for affordable flood insurance.	Flood, Hurricane and Tropical Storm	1.2	High	Orange County Planning and Inspections Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	Orange County has expanded its mapping and public outreach program. We will prohibit development in the floodway/special flood hazard area and require buffers (Per Section 6.13 of the UDO) from the 1% annual area of inundation (buffers range from 65ft to 80ft based on slope. No setbacks have been noted.
PP-3	Identify potential flood hazards of critical infrastructure and mitigation measures to address.	Flood, Hurricane, Tropical Storm	4.2	High	OWASA	CIP and Operating Budgets	2020-2025	New	
PP-4	Explore expanding situational awareness tools and strategies for increased monitoring of local hazards such as installation of additional stream gauges	All Hazards	2.2	Moderate	Emergency Services, OWASA	General Fund (existing staff salaries)	2020-2025	New	

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Natural Resource Protection									
NRP-1	Strive to ensure future development occurs in a manner that protects floodplains, streams, wetlands, and other natural features which work to reduce flood hazard susceptibility and continue to enforce existing regulations pertaining to stormwater management and erosion control standards contained within the Orange county Unified Development Ordinance.	Flood, Hurricane and Tropical Storm	1.1	High	Orange County Planning and Inspections Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	<p>The County enforces floodplain development regulations and riparian/floodplain buffers standards exceeding minimum FEMA model ordinance and State riparian buffer requirements.</p> <p>The County prevents development activities (i.e. grading, placement of fill material, etc.) within SFHAs and requires preservation of a floodplain buffer, measured from the edge of the 1%-annual area of inundation. This 'floodplain buffer' is required to be preserved in its natural state to assist with the natural infiltration of storm water runoff and serve as an overall flood control measure. The size of the buffer, which is based on the slope of the subject property, can range anywhere from 65 ft. to 80 ft.</p> <p>With respect to the County's storm water and erosion control programs, the County pushes development projects to adhere to low impact storm water design principles where practical and design erosion control basins in key critical watershed areas to the 25 year storm event.</p>
Structural Projects									
SP-1	Explore the possibility of retrofitting critical facilities to harden against high winds and lightening.	All Hazards	4.2	Moderate	Emergency Services, Asset Management	Unified hazard Mitigation Assistance (UHMA)	2020-2025	Carried Forward	Asset Management (AMS) staff worked with an architect (Jim Stumbo) in the Spring of 2018 and before to explore hardening the ES center. This produced drawings and specs which formed the basis for a grant application to the NC 9-1-1 Board for funding to create a hardened, updated, and more secure "Orange County Resilient PSAP" built to withstand wind speeds of up to 150 MPH. This was submitted on June 15th, 2018 but was not funded. AMS staff is currently exploring the possibility of hardening a new Emergency Services Substation in Efland.
SP-2	Conduct a cost-benefit review during the planning and design phase of construction of new government owned facilities or critical facilities to determine the feasibility of equipping the facility with back-up generators, lightening protection, high wind protection, and/or 361 compliant tornado shelters.	All Hazards	4.2	Moderate	Emergency Services, Asset Management	Unified hazard Mitigation Assistance (UHMA)	2020-2025	Carried Forward	This is being completed on a case-by-case basis with each new facility and major retrofit.
SP-3	Continue to identify and explore possibility of improving or retrofitting existing critical facilities with on site energy generation.	All Hazards	4.2	Moderate	Emergency Services, Asset Management, OWASA	Unified hazard Mitigation Assistance (UHMA)	2020-2025	New	
Emergency Services									
ES-1	Identify and implement strategies to increase swift water rescue capacity.	Flooding, Severe Weather, Hurricane and Tropical Storm	2.2	Moderate	Emergency Services	Emergency Management Performance Grant (EMPG)	2020-2025	New	

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
ES-2	Engage with regional stakeholders in comprehensive emergency response planning including Complex Coordinated Terror Attack response and Mass Casualty Incident response planning.	All Hazards	3.2	Moderate	Emergency Services	General Fund (existing staff salaries)	2020-2025	New	
Public Education & Awareness									
PEA-1	Provide education and outreach to Orange County residents in multiple languages in order to increase awareness of natural hazard potential in the county and maintain a link to the Eno-Haw Regional Hazard Mitigation Plan on Orange County's Website.	All Hazards	2.1	Moderate	Orange County Planning and Inspections Department; Emergency Services	General Fund (existing staff salaries)	2020-2025	Carried Forward	Revised to pursue outreach in multiple languages. Orange County continues to host and sponsor the Community Emergency Response Team (CERT) training. Since 2015, Orange County has hosted 8 CERT Basic Training Courses. In 2018, Orange County hosted a FEMA Community Mitigation Workshop to educate residents about mitigation options. In 2018-2019, Emergency Services staff worked with both Chamber of Commerces to develop and host 6 business emergency preparedness workshops. Also in 2018, the Orange County Health and Emergency Services Departments partnered to deliver 4 preparedness workshops to the limited English proficiency community. These workshops included take home preparedness kits for participants. Orange County EM continues to utilize social media and other platforms to inform and educate residents of natural hazards.
PEA-2	Engage in regional events, activities, and training opportunities related to natural hazards in order to improve communication, enhance, partnerships, and improve planning efforts with other local jurisdictions.	All Hazards	3.2	Moderate	Emergency Services	General Fund (existing staff salaries)	2020-2025	Carried Forward	Orange County participated in the Triangle Regional Resilience Assessment-2018
PEA-3	Strive to improve communication and outreach in multiple languages to Orange County residents before, during, and after hazard weather event with the county's website, press releases, social media accounts, and the OC Alerts system in order to keep residents informed and improve public safety in and around the county.	All Hazards	2.1	Moderate	Emergency Services	General Fund (existing staff salaries)	2020-2025	Carried Forward	Revised to pursue outreach in multiple languages. Orange County upgraded the website hosting and design vendor in August of 2018 from Revive to CivicPlus. Distribution of press releases was also changed from IContact to CivicSend in August 2018. Participating in Nextdoor, text 911, implemented citizen self reporting, hosted a FEMA Community Mitigation Workshop, Continually holding CERT classes and assisting in facilitating their success.
PEA-4	Provide staff support and information on Orange County's website to provide education and assistance to residents experiencing floodplain, stormwater, and erosion control issues.	Flood, Hurricane and Tropical Storm	2.1	Moderate	Orange County Planning and Inspections Department; Emergency Services	General Fund (existing staff salaries)	2020-2025	Carried Forward	Updated information was posted at http://www.orangecountync.gov/1309/Floodplain-Information

SECTION 7: MITIGATION ACTION PLANS

Table 7.13 – Mitigation Action Plan, Town of Carrboro

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	The Town of Carrboro, as a member of the Orange County hazard Mitigation Planning Team, will coordinate with Orange County to reevaluate and update its hazard mitigation planning component at least once every five years or sooner as deemed appropriate by the Orange County Planning Director	All Hazards	1.2	High	Orange County, Town of Carrboro	Self-funded	2025	Carried Forward	Participating in update process with local government partners in Eno-Haw Region.
P-2	The Town of Carrboro intends to submit a Community Rating System (CRS) application to the ISO for a flood insurance rating that will benefit owners of flood-prone properties	Flood	1.2	Moderate	Town of Carrboro Planning Department	N/A	2020-2025	Carried Forward	The Town has not yet pursued CRS participation due to limited funding and administrative resources. Moving forward, the Town will continue to reevaluate the cost-benefit ration of this action. Specific exploration will occur as part of comprehensive planning process which is in progress.
P-3	The Town of Carrboro will continue to monitor ongoing efforts by the State and the US Army Corps of Engineers to complete new floodplain mapping for the planning area. Local staff resources will be needed to implement and encourage the completion of these activities.	Flood	1.1	High	Town of Carrboro Planning Department; Town Engineer; Town of Carrboro Stormwater Utility; Town of Chapel Hill Engineering Department	N/A	2023	Carried forward	New maps were adopted in 2017. Updates are currently expected to take place in 2023. Stormwater utility established in 2017.
P-4	Establish comprehensive framework for plans, policies, and regulations pertaining to land use, generally, and the relationship to natural hazard mitigation	All Hazards	1.2	Moderate	Town of Carrboro Planning Department	Self-funded	2020-2025	Carried Forward	To be incorporated into Townwide Comprehensive planning process, which is in progress as of late May 2020.
P-5	Establish framework for assessing urban wildfire risk, communicating with the public on measures that can reduce risk.	Wildfire	2.1	Moderate	Town of Carrboro Fire Rescue; Town of Carrboro Planning	Self-funded; outside grants if available	2020-2025	New	
Property Protection									
PP-1	Seek funding to retrofit critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, backup generators, ignition-resistant materials, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, and anchoring fixed building equipment.	All Hazards	4.2	Moderate	Town of Carrboro Planning Department; Town of Carrboro Stormwater Utility; Town of Carrboro Fire-Rescue	Local, State grants, other federal grants	2020-2025	Carried Forward	The Town will continue to assess facilities and seek funding sources related to needs identified. Generators are included in the scope for the Town's 203 S. Greensboro Street project.
PP-2	The Town of Carrboro will administer a Stormwater Utility Fee to fund stormwater services/operations and provide residential and commercial assistance for stormwater related issues by expanding technical assistance, outreach, and other program components.	Flood, Hurricane & Tropical Storm, Landslide	1.2	High	Town of Carrboro Stormwater Utility	Self-funded	2020-2022	New	Stormwater utility established in 2017.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Natural Resource Protection									
NRP-1	The Town of Carrboro needs assistance and support for the development of greenways and parklands dedicated to public use along streams and easements. The Town will seek to secure funding from federal, state, and local sources to implement the Town's greenway system, which will in turn mitigate flood hazards.	Flood	1.1	Moderate	Town of Carrboro Planning Department; Town of Carrboro Recreation and Parks Department; Town of Carrboro Public Works	N/A	2020-2025	Carried Forward	Phase 1B/Homestead-Chapel Hill High School Multi-use Path is substantially complete. Morgan Creek and Jones Creek greenway projects expected to be complete in 2021.
NRP-2	Protect and conserve land with environmental and natural hazard mitigation value as open space.	Flood, Hurricane & Tropical Storm, Landslide	1.1	High	Town of Carrboro Planning Department	Self-funded	2020-2025	Carried Forward	Implementation underway for several projects and multiple approaches including land use regulations for developments, policy analysis/framework for comprehensive planning, and grant funding for repetitive loss properties.
Structural Projects									
SP-1	Require new developments to install electric, cable, and telephone wires underground.	Hurricane & Tropical Storm, Severe Weather, Severe Winter Weather	1.2	Moderate	Town of Carrboro Planning Department; Town of Carrboro Public Works Department; Public Utilities	N/A	2020-2025	Carried Forward	Revised. The Town of Carrboro will continue to require new developments to install electric, cable, telephone wires underground.
SP-2	Look for opportunities to mitigate repetitive loss structures	Flood	4.2	Moderate	Town of Carrboro Planning Department; Town of Carrboro Stormwater Utility; Office of the Carrboro Town Manager	N/A	2020-2025	Carried Forward	2020 In progress. Two elevations to be completed by July 2020. Applications for two additional elevations have been submitted and funding for Public Works site relocation is being explored.
Public Education & Awareness									
PEA-1	Maintenance and implementation of adopted (2017) Community Climate Action Plan	All Hazards	1.2	High	Town Manager's Office	Self-funded; grants, other revenue as available	2020-2025	New	Includes implementation of 2014 Strategic Energy Plan. Will serve as coordinating focus of actions underscoring Town's emphasis on building community resilience. Could potentially be included under Structural Projects, Prevention and Property Protection as well.
PEA-2	Create and maintain a webpage for hazard risk, mitigation, and preparedness information on the Town's website.	All Hazards	1.2	High	Town of Carrboro Planning Department	Self-funded	2020-2025	New	May be expanded in the future to include detailed flood risk information, flood gage data,

SECTION 7: MITIGATION ACTION PLANS

Table 7.14 – Mitigation Action Plan, Town of Chapel Hill

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Consider creative zoning options.	Flood, Hurricane and Tropical Storm, Severe Weather	1.2	Moderate	Town of Chapel Hill - Planning Department/ Managers Office	General Fund (existing staff salaries)	2020-2025	Carried Forward	In Progress. ToCH continues to try to engage with developers to pursue creative zoning options including conditional zoning which allows flexible and open conversations.-The Blue Hill District and the Innovative, Light Industrial Conditional Zoning District are other examples of creative zoning options. The Town Council and Town staff review zoning requirements and make adjustments as needed to achieve hazard mitigation goals.
P-2	Encourage mixed-use development forms.	Flood, Hurricane and Tropical Storm	1.2	Moderate	Town of Chapel Hill - Planning Department/ Managers Office	General Fund (existing staff salaries)	2020-2025	Carried Forward	In Progress. ToCH continues to emphasize mixed-use redevelopment in the downtown and in future focus areas, as per the comprehensive plan. The Town is undertaking an evaluation of its future land use map and development through an initiative called "Charting Our Future" (http://chartingourfuture.info/).
P-3	Establish a growth management protocol to maintain sufficient infrastructure capacity.	Flood, Hurricane and Tropical Storm, Severe Weather	4.1	Moderate	Town of Chapel Hill	N/A	2015-2020	Carried Forward	In Progress. The Town will continue existing growth management protocols to maintain sufficient infrastructure capacity including the Town's urban services district and the rural buffer, both of which continue to guide development decisions within the municipal boundaries. The Town is undertaking an evaluation of its future land use map through an initiative called "Charting Our Future" which will provide additional guidance on maintaining sufficient infrastructure capacity. (http://chartingourfuture.info/).
P-4	Improve the Development Review Process	Flood, Hurricane and Tropical Storm	1.2	Moderate	Town of Chapel Hill - Planning Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	In Progress. This continues to be an ongoing effort since 2009. ToCH is in the middle of future land use plan update. After this update,-a complete rewrite of the development ordinance ("Charting Our Future") will follow, which will include a comprehensive review of the Development Review Process.
P-5	Continue to enforce the stormwater management regulations through the Town's Land Use Management Ordinance and the floodplain regulations through the town's Flood Damage Prevention Ordinance. Continue training initiatives to maintain the Certified Floodplain Manager (CFM) registrations.	Flood, Hurricane and Tropical Storm	1.2	Moderate	Town of Chapel Hill - Stormwater Division	Stormwater Fund (existing staff salaries)	2020-2025	Carried Forward	Revised to remove development of a comprehensive stormwater program master plan because this action has been completed. The Town now has a Certified Floodplain Manager and will continue to support training.
P-6	Continue to participate in county-wide collaborative efforts and mitigation strategies	All Hazards	3.2	Moderate	Town of Chapel Hill - Emergency Management Division	General Fund (existing staff salaries)	2020-2025	New	
P-7	Continue enforcement of the North Carolina State Building Code.	All Hazards	1.2	Moderate	Town of Chapel Hill - Inspections Department	General Fund (existing staff salaries)	2020-2025	New	
P-8	Continue participation in the National Flood Insurance Program (NFIP) to allow citizens to be eligible for affordable flood insurance.	Flood, Hurricane and Tropical Storm	1.2	Moderate	Town of Chapel Hill - Stormwater Division	Stormwater Fund (existing staff salaries)	2020-2025	New	

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
P-9	Explore expanding situational awareness tools and strategies for increased monitoring of local hazards	All Hazards	2.2	Moderate	Town of Chapel Hill - Emergency Management Division	General Fund (existing staff salaries)	2020-2025	New	
Property Protection									
PP-1	Develop a network of greenways with regional connections.	Flood, Hurricane and Tropical Storm, Severe Weather	1.1	Moderate	Town of Chapel Hill - Parks and Recreation and Planning Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	In Progress. Have greenway master plan which is folded into mobility plan. Almost complete with Bolin Creek Trail connection and in design for Morgan Creek Trail that will extend trail towards Carrboro town limits. Town is in conversations with the County to discuss plan for a greenway that would connect Chapel Hill and Hillsborough. Town of Chapel Hill has 15½ miles of greenways trails (some paved and some soft surface) and 1000 acres of open space. NOTE: There is no open space plan or recreation master plan. NOTE: There is a Recreation Standards and Needs Assessment included as a component of the Comprehensive Parks Plan, adopted 5/29/2013. Recommendations for open space and recreation are also included. (https://www.townofchapelhill.org/town-hall/departments-services/parks-recreation/planning-and-development/comprehensive-parks-plan-adopted-may-29-2013).
PP-2	Preserve open space in residential developments through the application of conservation development principles.	Flood, Hurricane and Tropical Storm, Severe Weather	1.1	Moderate	Town of Chapel Hill - Planning Department/Managers Office	General Fund (existing staff salaries)	2020-2025	Carried Forward	ToCH is in the middle of future land use plan update. After this update, a complete rewrite of the development ordinance ("Charting Our Future") will follow, which will be an opportunity to further address conservation development.
Natural Resource Protection									
NRP-1	Manage watersheds, stormwater, and water quality and seek funding to design and construct projects on the subwatershed study reports' priority project lists, which have been identified and approved by the Town Council.	Flood, Hurricane and Tropical Storm, Severe Weather	1.1	Moderate	Town of Chapel Hill - Stormwater Division	Stormwater Fund (existing staff salaries)	2020-2025	Carried Forward	In 2014, the Town Council adopted the Stormwater Master Plan, which included a recommendation for conducting subwatershed studies. These studies evaluate existing conditions and identify problems – failing/undersized infrastructure, drainage and flooding, water quality, and stream conditions – then develop integrated watershed plans for improvements based on a full build-out condition, using zoning and land use plans. The studies began in the Booker Creek watershed - the Lower Booker Creek subwatershed study has been completed; the Eastwood Lake subwatershed study is under review; and the Cedar Fork subwatershed study is underway. With the Council approval of the Lower Booker Creek Subwatershed Study report and project recommendations, the Town now has a list of priority capital projects to be designed, permitted, and constructed.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
NRP-2	Strive to ensure future development occurs in a manner that protects floodplains, streams, wetlands, and other natural features which work to reduce flood hazard susceptibility and continue to enforce existing regulations.	Flood, Hurricane and Tropical Storm	1.1	Moderate	Town of Chapel Hill - Planning Department/Managers Office	General Fund (existing staff salaries)	2020-2025	New	
NRP-3	Coordinate with OWASA on long-term water supply planning and local conservation measures.	Drought, Extreme Heat	1.1	Moderate	Town of Chapel Hill - Resilience	OWASA	2020-2025	New	
NRP-4	Strategically preserving, acquiring, or protecting additional open spaces to provide environmental buffer. Work to implement open space recommendations as outlined in the Recreation Standards and Needs Assessment included as a component of the Comprehensive Parks Plan, adopted 5/29/2013. (https://www.townofchapelhill.org/town-hall/departments-services/parks-recreation/planning-and-development/comprehensive-parks-plan-adopted-may-29-2013).	Flood, Hurricane & Tropical Storm, Severe Weather	1.1	Moderate	Town of Chapel Hill	N/A	2015-2020	Carried Forward	In Progress. ToCH has open space standards in the ordinances for residential property. In addition, there are environmental resections for development town-wide. The Town has adopted the Jordan Watershed Stormwater Management for New Develop ordinance in an effort to further protect land with environmental value.
NRP-5	Encourage public and private partnerships to restore and maintain the Town's environmental resources.	Flood, Hurricane & Tropical Storm, Severe Weather	1.1	Moderate	Town of Chapel Hill	N/A	2015-2020	Carried Forward	In Progress. These types of partnerships are negotiated on a case-by-case basis. Currently, the town is working with UNC Healthcare at Eastowne, which contains a natural heritage site that the Town is working to preserve.
Structural Projects									
SP-1	Continue to identify and explore possible retrofits to critical facilities and Town-owned facilities for improved resilience to all hazards with the use of the latest building materials and technology. This could include, but is not limited to: wind retrofits, low water consumption fixtures, leak detectors, back up generators, ignition-resistant materials, 320 or 361 compliant safe rooms, lightning protection, hail resistant roofing, anchoring fixed building equipment.	Flood, Hurricane & Tropical Storm, Severe Weather	4.2	Moderate	Town of Chapel Hill - Public Works	General Fund (existing staff salaries) / Unified Hazard Mitigation Assistance (UHMA)	2020-2025	Carried Forward	No progress made due to funding limitations.
SP-2	Seek funding to install backup generators or quick connect hook ups for mobile generators on any newly constructed county/town critical facilities.	Flood, Hurricane & Tropical Storm, Severe Weather	4.2	Moderate	Town of Chapel Hill	Local, State grants, other federal grants	2015-2020	Carried Forward	No progress made due to funding limitations.
SP-3	Coordinate with utility partners and property owners regarding the use of microgrids and other forms of distributed energy to provide backup power to critical facilities.	Severe Weather, Hurricane and Tropical Storm	4.2	Moderate	Town of Chapel Hill - Resilience	General Fund, Utilities, Developers, Federal Grants (DOE)	2020-2025	New	
SP-4	Coordinate with OWASA to enhance the capacity of regional water system interconnects, as needed.	Drought, Extreme Heat	4.2	Moderate	Town of Chapel Hill - Resilience	OWASA	2020-2025	New	
SP-5	Coordinate with OWASA to limit the impacts of water supply leaks through infrastructure planning, maintenance and design.	Critical Infrastructure Failure	4.2	Moderate	Town of Chapel Hill - Resilience	OWASA	2020-2025	New	

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Emergency Services									
ES-1	Engage in regional events, activities, and training opportunities related to natural hazards in order to improve communication, enhance partnerships, and improve planning efforts both within the Town and with other local jurisdictions.	Flood, Hurricane & Tropical Storm, Severe Weather	3.2	Moderate	Town of Chapel Hill - Emergency Management Division	General Fund (existing staff salaries)	2020-2025	Carried Forward	The Town of Chapel Hill Office of Emergency Management (EM) routinely engages with emergency management services in surrounding jurisdictions and participates in joint meetings, planning sessions, and briefings with other agencies and jurisdictions. The Town has maintained an agreement for a countywide alert system.
ES-2	Identify and implement strategies to increase swift water rescue capacity.	Flood, Severe Weather, Hurricane and Tropical Storm	3.1	Moderate	Town of Chapel Hill - Fire Department	Emergency Management Performance Grant (EMPG)??	2020-2025	New	
ES-3	Engage with regional and county stakeholders in comprehensive emergency response planning including Complex Coordinated Terror Attack response and Mass Casualty Incident response planning.	All Hazards	3.2	Moderate	Town of Chapel Hill - Emergency Management Division	General Fund (existing staff salaries)	2020-2025	New	
Public Education & Awareness									
PEA-1	Encourage low-impact development for addressing stormwater quality and quantity concerns.	Flood, Hurricane and Tropical Storm	1.2	Moderate	Town of Chapel Hill - Planning Department	General Fund (existing staff salaries)	2020-2025	Carried Forward	In Progress. Low Impact Design (LID) is encouraged throughout the Town (The central theme of these regulations is to encourage "low-impact design" that disperses pavement into small modules, and replicates the natural hydrological system of the site." LUMO Article 5 Design and Development Standards).
PEA-2	Provide education and outreach to Chapel Hill residents in multiple languages in order to increase awareness of natural hazard potential in the town.	All Hazards	2.1	Moderate	Town of Chapel Hill - Emergency Management Division and Communications and Public Affairs	General Fund (existing staff salaries)	2020-2025	New	
PEA-3	Strive to improve communication and outreach in multiple languages to Town of Chapel Hill residents before, during, and after hazard weather event with the county's website, press releases, social media accounts in order to keep residents informed and improve public safety in and around the Town.	All Hazards	2.1	Moderate	Town of Chapel Hill - Emergency Management Division and Communications and Public Affairs	General Fund (existing staff salaries)	2020-2025	New	
PEA-4	To achieve Comprehensive Plan objectives: The Town is undertaking an evaluation of its future land use map (FLUM) and planning to rewrite the Town's UDO through an initiative called "Charting Our Future" (http://chartingourfuture.info/). The FLUM includes Resiliency Maps that depict areas of Town subject to flooding. It is anticipated that the new UDO will utilize these maps to attempt to mitigate flooding through updated regulations.	Flood, Hurricane and Tropical Storm	1.2	Moderate	Orange County Planning and Inspections Department; Emergency Services	General Fund (existing staff salaries)	2020-2025	New	

SECTION 7: MITIGATION ACTION PLANS

Table 7.15 – Mitigation Action Plan, Town of Hillsborough

Action #	Action Description	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Implementation Status Comments
Prevention									
P-1	Work with the Tree Board, Public Works Department, and utility companies to ensure that dangerous situations are addressed in a timely manner	All Hazards	3.1	Moderate	Town of Hillsborough Public Works Department	Grants; estimated cost \$20,000	2019-2025	Carried Forward	This has been partially completed. We will continue to work towards completion. This can be a moving target due to new threats such as leaning or dead trees, aging infrastructure, etc.
P-2	Work with State efforts to study hydrology and maps/designate any new flood prone areas	Flood	1.1	High	Town of Hillsborough Planning Department	N/A	2019-2025	Carried Forward	New flood maps and GIS maps have been drawn for a good portion of our jurisdiction as of 2017, but the northwest, south, and southwest areas of town still utilize 2007 FIRM panels.
Structural Projects									
SP-1	Construct new recreational facilities out of flood-resistant and resilient building materials due to their locations in flood-prone areas	Flood	4.2	Moderate	Town of Hillsborough Public Space and Public Works	Town Budget, grants	2020-2025	New	Due to the propensity for recreational land and structures to be located in flood prone areas, this will become a higher priority as the Town develops new public spaces and amenities
SP-2	Relocate the Public Works operation to a non-floodprone site. This is a sizable project and is expected to be completed in the next 5-7 years.	Flood	4.2	Moderate	Town of Hillsborough Public Works Department	Town Budget, grants; estimated cost \$1.1m	2023-2024	Carried Forward	This was originally budgeted for a contract for the 2016-2017 budget cycle, but due to funding and project delays, this will likely be re-prioritized to the 2023-2024 budget
Emergency Services									
ES-1	Conduct Emergency Operations Center (EOC) exercises and staff drills to address the increasing threat of terrorism and to increase staff coordination and response time for hazards	All Hazards	2.2	High	All Town Staff	Town Budget; estimated cost \$20,000	2020-2025	New	For FY2020 the town command/EOC staff conducted an exercise/training session on 11-14-2019 with a town wide event expected in the spring of 2020.
Public Education & Awareness									
PEA-1	Construct an extension of a fiber optic loop to serve underprivileged and rural residents with high speed internet service for better access to emergency information.	All Hazards	2.2	High	Town of Hillsborough Administration, Orange County Emergency Services	Grants	2020-2025	New	This program would expand much-needed access to high speed internet infrastructure to underserved, under-represented, and rural areas of Town, thus providing access to different types of emergency information in the event of an emergency. The Town is currently in the planning stages of this expansion, and construction is scheduled to begin in FY20.

SECTION 7: MITIGATION ACTION PLANS

Table 7.16 – Mitigation Action Plan, Person County-City of Roxboro

Action #	Action Description	Applicable Jurisdictions	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Status Comments
Prevention										
P-1	At next land Use Plan Update, incorporate a stand-alone element for hazard mitigation and involve citizens in comprehensive planning activities that identify and mitigate hazards.	Person County, City of Roxboro	All Hazards	1.2	Moderate	PC/CR PLAN	Local	2020/2021	Carried Forward	Carried forward from PC (P-1). Land Use Plan update is in progress
P-2	Update the Person County Subdivision Ordinance by reviewing and incorporating hazard mitigation objectives.	Person County	All Hazards	1.1	Low	PC PLAN	Local	2025	Carried Forward	Carried forward from PC (P-4). Not completed due to staffing issues 2015-2016. Current staff is interested in updating the Subdivision Ordinance in general and plans to address this item.
P-3	Update the Person County Floodplain Ordinance to comply with state and national standards.	Person County	Flood	1.2	High	PC PLAN	Local	2020	Carried Forward	Carried forward from PC (P-3). Floodplain Ordinance update is in progress
P-4	Revise and update the regulatory floodplain maps.	Person County, City of Roxboro	Flood	4.1	Moderate	PC/CR PLAN & GIS	Local	2020	Carried Forward	Carried forward from PC (P-6) and CR (PI-23). Floodplain map updates are in progress (per FEMA).
P-5	Use GIS to map 50' riparian buffers as required by the State within watersheds.	Person County, City of Roxboro	Flood	1.1	Moderate	GIS	Local	2021	Carried Forward	Carried forward from CR (P-8). Riparian buffers have not yet been mapped by the County due to administrative limitations.
P-6	Identify at risk-populations that may be exceptionally vulnerable in the event of long-term power outages.	Person County, City of Roxboro	Extreme Heat, Severe Weather, Severe Winter Storm	2.2	High	PC/CR PLAN & ES	Local	2025	New	
P-7	Organize outreach to vulnerable populations during long-term power outage events	Person County, City of Roxboro	Extreme Heat, Severe Weather, Severe Winter Storm	2.1	High	ES	Local	2025	New	
P-8	Public Services receive training on erosion and sedimentation control and assists property owners and developers with issues.	City of Roxboro	Flood	1.1	High	CR ADMN, CR PLAN, CR PUBLIC SERVICES	Local	2020-2025	Carry forward	Planning Director, who serves FPA, attends regular NFIP workshops for updates and provides information to property owners regarding proper floodplain development practices. Public Services Director requires sedimentation and erosion control data on all new development projects.
P-9	At the next update of the Land Use Plan, consider incorporating a Greenway or Open Space Plan	City of Roxboro	Flood	2.1	Moderate	CR PLAN	Local	2020	On-going/carry forward	There are some provisions in the existing UDO, additional improvements may be considered, pending the political climate.
P-10	Enforce impervious surface calculation/limitation for residential and non-residential development.	City of Roxboro	Flood	3.1	High	CR PLAN	Local	2024	On-going/carry forward	City requires Stormwater Administrator review and approval of all new construction/redevelopment projects.
Property Protection										
PP-1	Enforce minimum housing standards ordinance	City of Roxboro	All Hazards	1.2	High	CR PLAN & CR CODE ENFORCEMENT	Local	2020-2025	Carried forward	Carried forward from CR (PP-14). Have increased contracted hours with Code Enforcement officer to be able to maintain activity on minimum housing enforcement issues throughout the City and will continue to monitor

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Applicable Jurisdictions	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Status Comments
										the need to determine if further increases are necessary.
PP-2	Create and maintain a list of repetitive flood loss properties. Currently none to record/map	Person County, City of Roxboro	Flood	4.2	Moderate	PC/CR PLAN, GIS, & INSP	Local	2021	Carried forward	Carried forward from PC (PP-10). Continue to track flood loss properties through GIS and Building Inspections using Crisis Track Software. No flood loss properties as of 2019.
PP-3	Enforce Stormwater Ordinance for new and redevelopment on residential and commercial properties.	Person County, City of Roxboro	Flood	1.1	High	PC/CR PLAN	Local	2025	Carried forward	Carried forward from PC (P-7). Person County plans to continue enforcing the Stormwater Ordinance
Natural Resource Protection										
NRP-1	Establish Enhanced Voluntary Ag District (EVAD) Ordinance	Person County, City of Roxboro	Flood, Erosion	1.1	Moderate	SW	Local	2025	New	
NRP-2	Develop a conservation easement program	Person County, City of Roxboro	Flood, Erosion	1.1	Moderate	SW, CR PLAN	Federal; Local; State	2025	New	
NRP-3	Encourage participation in State & Federal Cost Share programs	Person County, City of Roxboro	Drought, Flood, Erosion	1.1	High	SW, NRCS, & FORESTRY	Federal; Local; State	2020-2025	New	
NRP-4	Conduct landowner/farmer workshops on conservation practices	Person County, City of Roxboro	Drought, Flood, Erosion	1.1	Moderate	SW & AG	State; Local	2020-2025	New	
Structural Projects										
SP-1	Identify at risk facilities and evaluate potential mitigation techniques for all hazards	Person County, City of Roxboro	All Hazards	4.2	High	PC/CR PLAN, GIS, & ES	Local	2025	New	
SP-2	Retrofit existing public facilities and critical facilities to withstand impacts from all hazards	Person County, City of Roxboro	All Hazards	4.2	High	ES	Federal; State; Local	2025	New	Grant application in progress.
SP-3	Identify and strengthen public facilities to act as shelters for all hazards	Person County, City of Roxboro	All Hazards	4.2	High	ES	Federal; State; Local	2025	New	Grant application in progress.
SP-4	Any and all portions of the 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 live, health or property	Person County, City of Roxboro	Flood	4.2	High	INSP	Federal; State; Local	2020-2025	Carried forward	Carried forward from PC (PI-8). Performed by Building Inspections on a case-by-case basis, as needed. Re-evaluate program success in next update
SP-5	Encourage the identification and retrofitting of safe rooms in public buildings, critical facilities, schools, and nursing homes.	Person County, City of Roxboro	Severe Weather	4.2	Moderate	ES	Local	2025	New	
Emergency Services										
ES-1	Ensure adequate evacuation warning in case of major hazard event.	Person County, City of Roxboro	All Hazards	3.1	High	ES	Local	2020-2025	Carried forward	Carry forward from PC (ES-11). County now has several warning procedures like emergency notification system, social & news media, message boards, etc. We continue to re-evaluate after events.

SECTION 7: MITIGATION ACTION PLANS

Action #	Action Description	Applicable Jurisdictions	Hazard(s) Addressed	Goal & Objective Addressed	Priority	Lead Agency / Department	Potential Funding Source	Implementation Timeline	2020 Status	2020 Status Comments
ES-2	Maintain/improve shelter capacities with alternative power/heat sources.	Person County, City of Roxboro	All Hazards	4.2	High	ES	Federal; State; Local	2025	Carried forward	Carry forward from PC (ES-12). Shelters do not have alternative power sources. Grant application in progress.
ES-3	Review program to maintain continuity of government operations.	Person County, City of Roxboro	All Hazards	3.1	Low	ES	Local	2025	Carried forward	Carry forward from PC (ES-13). County's COOP Plan was rewritten in 2018 and reviewed annually.
ES-4	Identify alternate/new Emergency Operations Center locations.	Person County, City of Roxboro	All Hazards	3.1	High	ES	Local	2025	Carried forward	Carry forward from PC (ES-14). Current EOC is inadequate. The EOC location and Alternate location are ID in the EOP and tested.
ES-5	Update and maintain Emergency Plan. Review and update EOP every four years.	Person County, City of Roxboro	All Hazards	3.1	Low	ES	Local	2025	Carried forward	Carry forward from PC (ES-15). OEM reviews the EOP annually and updates as needed. The EOP is re-adopted every four years.
ES-6	Track drainage, erosion, and flooding problems within the City planning jurisdiction.	City of Roxboro	Flood	1.1	High	CR PLAN & CR PUBLIC SERVICES	Local	2020-2025	Carried forward	Carried forward from CR (ES-19). Tracking underway and will be ongoing through next plan update from OEM, Plans and GIS.
ES-7	Continue to maintain a debris removal program for problem sites.	City of Roxboro	Flood	3.2	Moderate	CR PLAN	Local	2020-2025	Carried forward	Some work complete, further may be necessary. County is looking at participating in the State's Pre-Position Debris Contract Program and we are in conversation with Private Sector about contractor. This is ongoing through next plan update.
Public Education & Awareness										
PEA-1	The Emergency Services Department will periodically make various hazard education items available through various media outlets including websites, newspaper, radio	Person County, City of Roxboro	All Hazards	2.1	Moderate	ES	Local	2020-2025.	Carried forward	Carried forward from PC (PI-19). OEM and Plans Dept. conducts HM awareness during Emergency Preparedness week annually or as requested and OEM host regular NWS Storm Ready/Spotter seminars or as requested.
PEA-2	The Emergency Services Department will establish an annual hazard awareness week in coordination with the media to promote hazard awareness.	Person County, City of Roxboro	All Hazards	2.1	Moderate	ES	Local	2020-2025	Carried forward	Carried forward from PC (PI-20). Established in 2019. To be performed annually. OEM conducts HM awareness along with Emergency Preparedness week annually or as requested and we host regular NWS Storm Ready/Spotter seminars or as requested.
PEA-3	Place flood protection and other hazard mitigation education materials in public buildings (i.e. City Hall, County offices, library etc.).	Person County, City of Roxboro	All Hazards	2.1	Moderate	PC/CR PLAN & ES	Local	2025	New	
PEA-4	Post warning signage at local parks and outdoor venues with information about severe weather.	Person County, City of Roxboro	Severe Weather	2.1	High	ES	Local	2025	New	
PEA-5	Ensure school officials are aware of the best area of refuge in school buildings during orientation.	Person County, City of Roxboro	Severe Weather	2.1	High	ES	Local	2025	New	

Lead Agency/Department: PC = PERSON COUNTY / CR = ROXBORO / INSP = INSPECTIONS / ES = EMERGENCY SERVICES / SW = SOIL & WATER / AG = AG EXTENSION / PLAN = PLANNING

