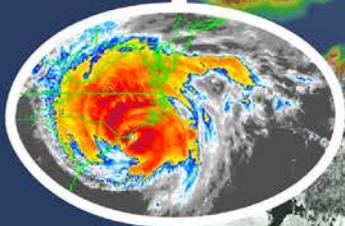




Multi-Jurisdictional Hazard Mitigation Plan Mecklenburg County, North Carolina

June 2015



Prepared by:
AECOM

MECKLENBURG COUNTY HAZARD MITIGATION PLAN

2015 Plan Update

Adopted By:

Mecklenburg County

City of Charlotte

Town of Cornelius

Town of Davidson

Town of Huntersville

Town of Matthews

Town of Mint Hill

Town of Pineville

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INTRODUCTION

This section provides a general introduction to the Mecklenburg County Multi-jurisdictional Hazard Mitigation Plan and consists of the following five subsections:

- BACKGROUND
- PURPOSE
- SCOPE
- AUTHORITY
- PLAN OUTLINE

BACKGROUND

Natural hazards, such as floods, tornadoes and severe winter storms are a part of the world around us. Their occurrence is natural and inevitable, and there is little we can do to control their force and intensity.

Mecklenburg County and the municipalities participating in this planning process are vulnerable to a wide range of natural hazards that threaten the safety of county residents, and have the potential to damage or destroy both public and private property and disrupt the local economy and overall quality of life.

While the threat from hazards may never be fully eliminated, there is much we can do to lessen their potential impact. The concept and practice of reducing risks associated with known hazards is referred to as *hazard mitigation*.

Hazard mitigation techniques include both structural measures, such as strengthening or protecting buildings and infrastructure from the destructive forces of potential hazards, and non-structural measures, such as the adoption of sound land use or floodplain management policies and the creation of public awareness programs. Effective mitigation measures are often implemented at the county or municipal level, where decisions on the regulation and control of development are made. A comprehensive mitigation approach addresses hazard vulnerabilities that exist today and in the foreseeable future. Therefore it is essential that projected patterns of future development are evaluated and considered in terms of how that growth will increase or decrease a community's hazard vulnerability over time.

As a community formulates a comprehensive approach to reduce the impacts of hazards, a key means to accomplish this task is through the development, adoption, and regular update of a local hazard mitigation plan. A hazard mitigation plan establishes the community vision, guiding principles and the specific actions designed to reduce current and future hazard vulnerabilities.

The Mecklenburg County Multi-jurisdictional Hazard Mitigation Plan (hereinafter referred to as "Hazard Mitigation Plan" or "Plan") is an effective means to incorporate hazard mitigation principles and practices into the day-to-day activities of county and municipal governments. The Plan recommends specific actions designed to protect Mecklenburg County's residents as well as the built environment from those hazards that pose the greatest risk. Identified mitigation actions go beyond recommending structural solutions to reduce existing vulnerability, such as elevation, retrofitting and acquisition projects. Local policies on community growth and development, incentives tied to natural resource protection, and public awareness



FEMA Definition of Hazard Mitigation

"Any sustained action taken to reduce or eliminate the long-term risk to human life and property from [natural] hazards."

and outreach activities are examples of other actions intended to reduce Mecklenburg County's future vulnerability to identified hazards.

DISASTER MITIGATION ACT OF 2000

In an effort to reduce the Nation's mounting natural disaster losses, the U.S. Congress passed the Disaster Mitigation Act of 2000 (DMA 2000) to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Section 322 of the Act requires that state and local governments develop and routinely update a hazard mitigation plan in order to remain eligible for pre- and post-disaster mitigation funding. These funds include the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) program, and Flood Mitigation Assistance (FMA) program, all of which are administered by the Federal Emergency Management Agency (FEMA) under the Department of Homeland Security as part of FEMA's Hazard Mitigation Assistance (HMA) program. Communities with an adopted and federally approved hazard mitigation plan thereby become pre-positioned and more apt to receive available mitigation funds before and after the next disaster strikes.

This Plan was prepared using current FEMA planning guidance and in coordination with the North Carolina Division of Emergency Management in order to ensure that it meets all applicable state and federal mitigation planning requirements. This includes conformance with FEMA's latest *Local Mitigation Planning Handbook* (dated March 2013). A *Local Plan Review Tool*, found in *Appendix B*, provides a summary of FEMA and NCEM's current minimum standards of acceptability and notes the location within the Plan where each planning requirement is met.

PURPOSE

The general purpose of this Hazard Mitigation Plan is to:

- protect life and property by reducing the potential for future damages and economic losses that result from natural hazards;
- qualify for additional grant funding, in both the pre-disaster and post-disaster environment;
- speed recovery and redevelopment following future disasters;
- integrate existing flood mitigation documents;
- sustain and enhance existing governmental coordination in Mecklenburg County and demonstrate a firm local commitment to hazard mitigation principles; and
- comply with state and federal requirements tied to local hazard mitigation planning.

SCOPE

This Hazard Mitigation Plan will be updated and maintained to continually address those natural hazards determined to be of high and moderate risk as defined by the results of the risk assessment (see "Conclusions on Hazard Risk" in Section 6: *Vulnerability Assessment*). Other natural hazards that pose a low or negligible risk will continue to be evaluated during future updates to the Plan in order to determine if they warrant additional attention, including the development of specific mitigation measures intended to reduce their impact.

The planning area¹ includes unincorporated areas of **Mecklenburg County**, the City of **Charlotte** and the towns of **Cornelius, Davidson, Huntersville, Matthews, Mint Hill** and **Pineville**. The planning area has not changed with either the 2010 plan update or the 2015 plan update.

AUTHORITY

This Hazard Mitigation Plan has been adopted by Mecklenburg County in accordance with the authority and police powers granted to counties as defined by the State of North Carolina (N.C.G.S., Chapter 153A). This Hazard Mitigation Plan has also been adopted by the City of Charlotte, Town of Cornelius, Town of Davidson, Town of Huntersville, Town of Matthews, Town of Mint Hill and the Town of Pineville under the authority granted to cities and towns as defined by the State of North Carolina (N.C.G.S., Chapter 160A). Copies of all local resolutions to adopt the Plan are included in Appendix A.

This Plan was developed in accordance with current state and federal rules and regulations governing local hazard mitigation plans. The Plan shall be monitored and updated on a routine basis to maintain compliance with the following legislation:

- Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000 (P.L. 106-390) and by FEMA's Interim Final Rule published in the Federal Register on February 26, 2002, at 44 CFR Part 201.
- North Carolina General Statutes, Chapter 166A: North Carolina Emergency Management Act, as amended by Senate Bill 300: An Act to Amend the Laws Regarding Emergency Management as Recommended by the Legislative Disaster Response and Recovery Commission (2001).

PLAN OUTLINE

This Hazard Mitigation Plan is divided into ten major sections, each of which is briefly introduced and described below. It also includes several appendices for additional or supplemental items not included in the main body of the plan, including copies of local adoption resolutions and a completed *Local Plan Review Tool*.

This **Introduction** (Section 1) provides some background on hazard mitigation planning and the Disaster Mitigation Act of 2000, and then defines the purpose, scope and authority of the plan as adopted by Mecklenburg County and its incorporated municipalities. It also provides the following outline of each section making up the plan.

The **Planning Process**, found in Section 2, fully documents the process by which Mecklenburg County and its participating municipal jurisdictions have prepared and updated this plan. This includes describing the key steps involved in the processes followed, who was involved (the planning team) and full descriptions of community meetings and workshops, how the public and other stakeholders were notified and involved, and how each of the municipal jurisdictions participated in the process.

The **Community Profile**, located in Section 3, describes the general makeup of Mecklenburg County and participating municipalities, including prevalent geographic, demographic and economic characteristics. In

¹ Refer to Section 3: *Community Profile* for an overview map of Mecklenburg County and other specific details of the planning area.

addition, building characteristics and land use patterns are discussed along with some general historical disaster data. This baseline information provides a snapshot of the countywide planning area and thereby assists participating officials recognize those social, environmental and economic factors that ultimately play a role in determining community vulnerability to natural hazards.

The Risk Assessment is presented in three separate sections: Section 4: **Hazard Identification**, Section 5: **Hazard Analysis**, and Section 6: **Vulnerability Assessment**. Together, these sections serve to identify, analyze and assess Mecklenburg County's overall risk to natural hazards. The risk assessment also attempts to define any hazard risks that may uniquely or exclusively affect localized areas within the participating jurisdictions. The risk assessment builds on available historical data from past hazard occurrences, establishes hazard-by-hazard profiles, and culminates in a hazard risk ranking based on conclusions about the frequency of occurrence, potential impact, spatial extent, warning time and duration of each hazard. FEMA's HAZUS[®] loss estimation methodology was also used in evaluating known hazard risks according to their relative long-term cost, measured in expected damages. The risk assessment is designed to assist communities seek the most appropriate mitigation actions to pursue and implement—focusing their efforts on those hazards of greatest concern and those assets, structures or planning areas facing the greatest risk.

The **Capability Assessment**, found in Section 7, provides a comprehensive examination of Mecklenburg County and participating jurisdictions' capacity to implement meaningful mitigation strategies and identifies existing opportunities to increase and enhance that capacity. Specific capabilities addressed in this section include planning and regulatory capability, staff and organizational (administrative) capability, technical capability, fiscal capability, education and outreach, and political capability. Information was obtained through the use of detailed survey questionnaires and an inventory and analysis of existing plans, ordinances and relevant documents. The purpose of this assessment is to identify any existing gaps, weaknesses or conflicts in programs or activities that may hinder mitigation efforts, and to identify those activities that should be built upon in establishing a successful hazard mitigation program.

The Community Profile, Risk Assessment, and Capability Assessment collectively serve as a basis for determining the goals for the Hazard Mitigation Plan, each contributing to the development, adoption and implementation of a meaningful *Mitigation Strategy* that is based on accurate background information.

The **Mitigation Strategy**, found in Section 8, consists of broad goal statements as well as the identification and evaluation of mitigation techniques for each jurisdiction participating in the planning process to consider in addressing their own unique hazard risks. The strategy provides the foundation for detailed **Mitigation Action Plans**, found in Section 9, that link jurisdictionally specific mitigation actions to locally assigned implementation mechanisms and target completion dates. Together, these sections are designed to make the Plan both strategic and functional through the identification of long-term goals and near-term actions that will guide day-to-day decision-making and project implementation.

In addition to the identification and prioritization of possible mitigation projects, emphasis is placed on the use of program and policy alternatives to help make Mecklenburg County and participating municipalities less vulnerable to the damaging forces of nature while improving the economic, social and environmental health of the community. The concept of multi-objective planning was emphasized throughout the plan development and update process, with local representatives from each jurisdiction being encouraged to seek ways to link hazard mitigation policies and programs with other complimentary community goals that may be related to housing, economic development, downtown revitalization, recreational opportunities, transportation improvements, environmental quality, land development, and public health and safety. Specific examples already proven effective in Mecklenburg County include the acquisition of flood-prone properties, the creation of urban greenways and open space in the floodplain, improving water quality through the reduction in non-point source pollution, and the delineation of floodplain boundaries that

account for the impact of future development. Each of these proactive and interconnected measures represents a concerted effort to make Mecklenburg County and participating jurisdictions more livable communities.

Lastly, the ***Plan Maintenance Procedures***, found in Section 10, includes the measures Mecklenburg County and participating jurisdictions will take to ensure the Plan's continuous long-term implementation. The procedures also include the manner in which the Plan will be regularly monitored, reported upon, evaluated and updated to remain a current and meaningful planning document.

There are several appendices to the Plan, including Appendix A (*Plan Adoption*) which includes copies of the local adoption resolutions passed by the governing bodies for each of Mecklenburg County's local jurisdictions requesting approval of the Plan. Appendix B (*Public Participation Survey*) includes a general summary of the results and findings of the public participation survey along with a copy of the survey instrument used to collect the data during the 2015 plan update process. Appendix C (*Key Federal Mitigation Funding Sources*) includes a listing of some of the key, well-established federal hazard mitigation funding programs available to implement future mitigation projects. Appendix D (*Local Hazard Mitigation Plan Update Checklist*) includes a completed copy of the Local Hazard Mitigation Plan Update Checklist as provided by the North Carolina Division of Emergency Management.

