

1. Introduction

Hazard: An event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, damage to the environment, interruption of business, or other types of harm or loss.

Mitigation: Sustained action taken to reduce or eliminate the long-term risk to human life and property from natural hazards and their effects. Note that this emphasis on long-term risk distinguishes mitigation from actions geared primarily to emergency preparedness and short-term recovery.

1.1 Purpose

Natural hazards tend to be low-probability, high-impact events. One year could be mild with natural events scarcely interrupting communities, while the next could be literally disastrous. The purpose of hazard mitigation is to make an effort to minimize the damage and loss of life caused by disasters when they do occur. Hazard mitigation is one component, along with emergency response and post-disaster recovery, to the larger strategy of dealing with the human impacts of natural hazard

With more people living in areas susceptible to natural hazards, the costs associated with such hazards have been steadily increasing over time. The localities of the Thomas Jefferson Planning District (the Counties of Albemarle, Greene, Fluvanna, Louisa, and Nelson, the City of Charlottesville, and the Towns of Scottsville, Columbia, Stanardsville, Louisa, and Mineral) are impacted by variety of different hazards. In order to lessen the growing cost of disaster recovery on the localities and minimize the disruption of business during a disaster, there is a growing need to mitigate the impact of known hazards. Through proper planning and the implementation of policies and projects identified in this Hazard Mitigation Plan, the region and the localities can reduce the likelihood that these events will result in costly disasters.

Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from natural hazards. It includes both structural measures, such as protecting buildings and infrastructure from the forces of nature and non-structural measures, such as natural resource protection and wise floodplain management. Actions may be targeted to protect existing development, or could be designed to protect future

development as well. It is widely accepted that the most effective mitigation measures are implemented at the local government level, where decisions on the regulation and control of development are ultimately made.

The benefits of hazard mitigation are numerous, including:

- Saving lives and reducing property damage
- Protecting critical community facilities
- Reducing exposure to liability
- Minimizing community disruption
- Reducing long-term hazard vulnerability
- Contributing to sustainable communities

More importantly, mitigation planning has the potential to produce long-term benefits by breaking the repetitive cycle of disaster loss. A core assumption of hazard mitigation is that a pre-disaster investment significantly reduces the demand for post-disaster assistance. Further, the adoption of mitigation practices enables local residents, businesses, and industries to more quickly recover from a disaster, getting the economy back on track sooner and with less interruption.

This plan systematically identifies potential hazards and sets goals for implementation over the long-term that will result in a reduction in risk. Unlike emergency operations plans or disaster preparedness, this plan seeks to develop ways to lessen the impact of natural disasters on the region's resources through strategic, long range planning. The overall goal of hazard mitigation is to save lives and reduce property damage.

» Sections of the Plan

This Plan is designed to meet the requirements of the Disaster Mitigation Act of 2000. The Hazard Mitigation Plan includes the following sections:

1. Planning Process
2. Community Profile
3. Hazard Identification and Analysis
4. Vulnerability Assessment
5. Capabilities Assessment
6. Mitigation Strategies

The **Planning Process** section describes the process by which this plan was developed including a description of the planning team, and overall stakeholder involvement. It also outlines the ongoing process for maintaining and updating the plan.

The **Community Profile** is a narrative description of general community characteristics, such as the region’s geographical, economic and demographic profiles. Future development trends and implications for hazard vulnerability are discussed.

The **Hazard Identification and Analysis** section describes natural hazards in the order in which they pose the greatest threat to the Thomas Jefferson Planning District. Hazards are profiled in terms of prevalence, intensity, and geographical scope. The section includes a description of the hazard as well as analysis based upon historical and scientific data.

The **Vulnerability Assessment** combines the identification of hazards with both present and projected human settlement patterns to measure their human impact. Potential losses are estimated quantitatively based upon historic events scenarios or the probability of future events.

The **Capabilities Assessment** provides an examination of the region’s capacity to implement meaningful

mitigation actions, and identify existing opportunities for program enhancement. Capabilities addressed in this section include staff and organizational capability, technical capability, policy and program capability, fiscal capability, legal authority and political will. The purpose of this assessment is to identify any existing gaps that may hinder mitigation efforts, and to identify those activities that can facilitate risk reduction efforts.

The **Mitigation Action Plan** forms the basis for action — identifying broad policy goal statements, more specific policy objectives and specific action-oriented hazard mitigation actions. Hazard mitigation actions include both policies and projects designed to reduce the impacts of hazardous events. The section also describes four overarching strategies for mitigating high and moderate risk hazards.

2. Process and Involvement

This section describes the planning process undertaken by the Thomas Jefferson Planning District Commission in preparation of the Regional Hazard Mitigation Plan, as well as the means for monitoring the plan between 2017 and 2022. An emphasis is placed on the engagement of a broad range of community stakeholders and the substantive inclusion of public input into the plan.

The following timeline depicts the major points along the process of the plan update:



Upon approval from VDEM and FEMA, a public hearing will be held before the Thomas Jefferson Planning District Commission to adopt the plan as a region. Additionally, staff from the Thomas Jefferson Planning District Commission will make a presentation to each of the local boards of elected officials to request a resolution of support for the final plan.

A key feature of the development of the plan has been achieving participation and input from stakeholders through the Planning District. Documentation of the planning process including meeting notes, sign-in sheets, and complete survey results are included in the appendices.

201.6(b) and §201.6(c)(1): An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

(1) an opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;

(2) an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and

(3) review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

Because of the multi-jurisdictional nature of this Hazard Mitigation Plan, comprehensive and balanced representation from each jurisdiction has been practiced

44 CFR 201.6(a)(3): Multi-jurisdictional plans may be accepted, as appropriate, as long as each jurisdiction has participated in the process.

consistently.

There have been six primary methods for obtaining input for the plan:

1. Regular meetings of the Hazard Mitigation Working Group.
2. One public workshops.

3. An online survey and solicitation of public input from website.
4. Presentations to Local Emergency Planning Committees, and work with locality staff
5. Recommendations from existing plans and documents.
6. Public comment period of entire draft plan.

44 CFR 201.6(c)(1): The plan must document the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

1. Hazard Mitigation Working Group

The Working Group, consisting primarily of planners and emergency operations coordinators in each locality, served as the primary decision-making body guiding the plan. The Working Group also provided technical input on the content of the plan at multiple points along the timeline of the update. The Working Group was originally formed during the creation of the 2006 Regional Hazard Mitigation Plan, and the group has reconvened on an annual basis to monitor progress toward the adopted action items in the initial plan. A roster of the Working Group is included in the appendix. An article about the update of the Hazard Mitigation Plan and the May 2016 Kick-off meeting was included in the TJPDC News Brief issued in early May.

2. Public Workshops

A public event was held on November 14, 2016. The event was widely advertised both through the TJPDC News Brief, e-mails to individuals with a special interest in hazard mitigation and emergency response and a press release was issued to local media outlets. An article was published in the Daily Progress November 4, 2016.

A broad range of stakeholders, from foresters to administrators in the public school system, participated in the workshop. The purpose of the first part of the meeting was to present a draft of the Hazard Identification and Risk Assessment, in order to provide an objective basis for any mitigation response and solicit feedback to improve the HIRA. In addition to this information, participants were provided the goals and objectives from the 2012 plan and worked in small groups to develop recommendations for additions, deletions, and revisions. The small groups also considered possible actions and reported out to the full group.

3. Online Survey and Website

The TJPDC website was updated early in the planning process to announce the initiation of the plan and probe

for interest among residents in the region. The website was updated regularly with drafts of various components as they were completed, along with requests for comment. Updates on the process were also included in TJPDC's News Briefs.

Throughout February and March 2017, an online survey was used to assess familiarity with hazard mitigation concepts, weigh the relative concern over various hazards, prioritize the goals and objectives of the plan, gauge the political will for mitigation policies, and find new ideas for effective action items. The survey received 74 responses, with participants from every locality in the Planning District.

Because of its self-selecting nature and marketing through the Hazard Mitigation Working Group, the survey should not be considered representative of the opinions of the whole population. Nevertheless, it proved to be a useful tool for gathering input from informed and enthusiastic members of the public, and several action items were revised or added based on the results.

4. Presentations to Local Committees

Visits were paid to local committees to make them aware of the hazard mitigation plan update and incorporate the specific expertise of the group into the plan. The Working Group developed the goals and objectives for the regional plan, and incorporated a list of potential actions organized under each objective. The Plans Review Group for Albemarle-Charlottesville-UVA met October 31, 2016 to review an update recommended actions, and the Local Emergency Planning Committee (LEPC) for that geographic area met November 30, 2016. Fluvanna's LEPC, met January 19, 2017, with TJPDC staff attending to provide an update on the Hazard Mitigation Plan and to facilitate input on potential actions.

5. Recommendations from Existing Plans and Documents

Locality staff reviewed various plans for their jurisdiction, to incorporate strategies and specific actions set forth in those plans into the Regional Hazard Mitigation Plan. Some specific relevant projects were taken directly from these plans and included as action items in the regional plan.

6. Public comment period

The entire draft Hazard Mitigation Plan was made available to the public for comment between March 16th and April 16th of 2012. The comment period was advertised in local media on March 15th, 2012.

» Method of Update

The 2017 Regional Hazard Mitigation Plan is an update of the 2012 Plan. The original plan Regional Hazard Mitigation Plan was adopted in 2006. As such, TJPDC staff has made efforts to maintain continuity with the original plan while making substantive revisions to reflect new data on hazards, new ideas for mitigation, and progress made toward the completion of previous action items. The Hazard Identification section kept most of the original material broadly profiling hazards, but the majority of the analysis of the impact hazards exert in the region is either updated or new.

Goals and objectives from the 2012 Plan were reviewed in the public workshop. Comments from that workshop were presented to the Working Group, which further modified the goals and objectives. Input on potential actions was also solicited at the public workshop and from the Working Group. TJPDC Staff then developed a listing of goals and objectives, with suggested actions for inclusion under each objective. The draft was then reviewed with the Working Group, to ensure that the goals and objectives were inclusive of suggested actions. The final product was used to facilitate input from local committees, and to facilitate the review and incorporation of actions from other local plans.

Action items were developed from the master list, and pulled from other local plans. The Working Group found that many actions from the 2006 and 2012 plans were ambiguous and difficult to track. Notes from annual meetings also suggested some potential actions to include. The action items were further revised through LEPC meetings, Working Group meetings, and input from locality staff and other stakeholders. Some new action items were generated by the online survey.

» Monitoring and Maintenance

§201.6(c)(4)(i): [The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

Each locality will receive a copy of the completed plan to keep on file at the county or city office. The TJPDC will post the plan on their website (www.tjpd.org/environment/hazard.asp).

The monitoring policy set forth in the original 2006 plan remains in place. The Hazard Mitigation Working Group, supported by TJPDC staff, will meet annually in May or following a major disaster to evaluate progress and review annual impacts or actions which may necessitate changes in the plan.

Regular evaluation of the plan will address whether:

1. goals and objectives address current and expected conditions;
2. the nature, magnitude, or type of hazard affecting the region has changed;
3. current resources are appropriate for implementing the plan;
4. important problems such as technical, political, legal, or coordination issues with other agencies have occurred;
5. agencies and other partners are participating as originally proposed.

The plan will undergo a comprehensive review and evaluation every five years by the Working Group and the TJPDC under the authority of the Board of Supervisors and City Council. The next update will be submitted to VDEM by the summer of 2022.

Ongoing public involvement will be critical to ensure the most accurate and up-to-date plan. Significant amendments to the plan will require a public hearing and other efforts to involve the public will be made as necessary.

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