MULTI-HAZARD MITIGATION PLANNING GUIDANCE UNDER THE DISASTER MITIGATION ACT OF 2000

FEMA

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LIST OF ACRONYMS

BCA	Benefit-Cost Analysis
BMPs	Best Management Practices
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CIP	Capital Improvement Plan
CRS	Community Rating System (part of the National Flood Insurance Program)
CZM	Coastal Zone Management Program
DMA 2000	Disaster Mitigation Act of 2000
DOT	Department of Transportation
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
FMA	Flood Mitigation Assistance Program
GIS	Geographic Information System
HMC	Hazard Mitigation Committee
HMGP	Hazard Mitigation Grant Program
HUD	US Housing and Urban Development
IBC	International Building Code
IFR	Interim Final Rule
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
OMB	Office of Management and Budget
PA	Public Assistance
PDM	Pre-Disaster Mitigation Program
SBA	Small Business Administration
SHMO	State Hazard Mitigation Officer
STAPLE+E	Social, Technical, Administrative, Political, Legal, Economic, and Environmental
UCC	Uniform Construction Code

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OVERVIEW

The Disaster Mitigation Act of 2000 (DMA 2000) (P.L. 106-390) provides an opportunity for States, Tribes, and local governments to take a new and revitalized approach to mitigation planning. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Act) by repealing the previous Mitigation Planning section (409) and replacing it with a new Mitigation Planning section (322). This new section emphasizes the need for State, Tribal, and local entities to closely coordinate mitigation planning and implementation efforts. It continues the requirement for a State mitigation plan as a condition of disaster assistance, and creates incentives for increased coordination and integration of mitigation activities at the State level through the establishment of requirements for two different levels of State plans: "Standard" and "Enhanced." States that demonstrate an increased commitment to comprehensive mitigation planning and implementation through the development of an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program (HMGP). Section 322 also established a new requirement for Local Mitigation Plans, and authorized up to 7% of HMGP funds available to a State to be used for development of State, Tribal, and Local Mitigation Plans.

To implement the DMA 2000 planning requirements, FEMA published an Interim Final Rule (**the Rule**) in the Federal Register on February 26, 2002. This Rule (44 CFR Part 201) established the mitigation planning requirements for States, Tribes, and local communities. Normally FEMA publishes a proposed rule for public comment before publishing a final rule. This process can result in a lengthy comment and response period, during which the proposed rule is not legally effective or enforceable. Because certain types of Stafford Act assistance are conditioned on having an approved mitigation plan, FEMA wanted to publish an effective rule providing the DMA 2000 planning requirements in order to position State and local governments to receive these mitigation funds as soon as possible.

Even though it is an Interim Final Rule, FEMA will still publish a proposed rule for public comment, to be followed eventually by a final rule. FEMA is assessing the utility and practicality of these interim final requirements based on the experience of States, Tribes, and local governments, and will draw on this experience in preparing the future Proposed and Final Rules for Mitigation Planning. Until then, the Rule serves as the governing set of requirements for DMA 2000 planning implementation.

Special Considerations:

In reading the Rule, an important distinction must be made between the words "shall" and "should." When the word "shall" is used, the requirement is mandatory – e.g., "The risk assessment *shall* include: A description of the type, location, and extent of all natural hazards that can affect the jurisdiction." If the plan does not include this description, it will not be approvable by FEMA. It should also be noted that the word "must" carries the same mandatory nature as the word "shall." For example, "The plan *must* be … resubmitted for approval to the appropriate Regional Director every three years." This is a mandatory requirement.

When the word "should" is used, the item is strongly recommended to be included in the plan, but its absence will not cause FEMA to disapprove the plan. For example, where the Rule says, "The plan *should* describe vulnerability in terms of … the types and numbers of existing and future buildings …" this information would make the plan more useful, but the plan could still be approved if it is not included (assuming the plan met all the mandatory requirements).

The use of the words "should," "shall," and "must" in this *Multi-Hazard Mitigation Planning Guidance* is consistent with the use of those words in the Rule. In the Plan Review Crosswalks found in Section 4, the "should" requirements are shaded, as a reminder that they are not required for plan approval.

To help States, Tribes, and local governments better understand the Rule and meet the DMA 2000 planning requirements, FEMA has prepared this document, *Multi-Hazard Mitigation Planning Guidance Under the Disaster Mitigation Act of 2000 (Multi-Hazard Mitigation Planning Guidance).* It was designed with three major objectives:

- To help Federal and State reviewers evaluate mitigation plans from different jurisdictions in a fair and consistent manner;
- To help States, Tribes, and local jurisdictions develop new mitigation plans or modify existing ones in accordance with the requirements of the Rule, and
- To help States, Tribes, and local jurisdictions conduct comprehensive reviews and prepare updates to their plans in accordance with the review and update requirements of the Rule.

This *Multi-Hazard Mitigation Planning Guidance,* as interpretation and explanation for the Rule, is FEMA's official source for defining the requirements of original and updated mitigation plans. It includes references to specific language in the Rule, descriptions of the relevant requirements, and sample plan text to illustrate distinctions between plan approaches that would and would not meet DMA 2000 requirements. In addition, this document provides references to a number of planning tools that FEMA has made available to assist

States, Tribes, and localities in developing a comprehensive, multi-hazard approach to mitigation planning, and in preparing plans that will meet the DMA 2000 requirements. These tools include:

- *State and Local Mitigation Planning How-to Guides* – intended to help States and communities plan and implement practical, meaningful hazard mitigation actions (FEMA 386-1,2,3,4,5,6,7 and 8); available on the FEMA Web site at http://www.fema.gov/plan/mitplanning/planning_resources.shtm#1.

- *Planning for a Sustainable Future* (FEMA 364) - provides guidance for integrating hazard mitigation and sustainable practices as part of pre- and post-disaster mitigation planning efforts; available on the FEMA Web site at http://www.fema.gov/plan/mitplanning/planning_resources.shtm#1.

- *Multi-Hazard Identification and Risk Assessment*, available on the FEMA Web site at http://www.fema.gov/plan/prevent/fhm/ft_mhira.shtm.

- *FEMA Mitigation Resources for Success* (FEMA 372) – a compact disc (CD) with a compendium of FEMA resources related to mitigation practices and projects; and

- *Mitigation Benefit Cost Analysis (BCA) Toolkit Compact Disc* – this CD includes all the FEMA BCA software, technical manuals, BCA training course documentation, and other supporting material and BCA guidance. Copies can be obtained by calling FEMA's toll-free BC Hotline at 866-222-3580.

These publications, with the exception of the BCA Toolkit CD, can be ordered through the FEMA Publications Warehouse at 800-480-2520 or online at FEMA's Information Resource Library http://www.fema.gov/library/index.jsp.

FEMA recently made available HAZUS-MH (Hazards U.S. – Multi-Hazard), a risk assessment software program. For more information, go to http://www.fema.gov/plan/prevent/hazus/.

In addition, FEMA has developed the DMA 2000 Mitigation Planning Workshop for Local Governments (G318), based on the *Multi-Hazard Mitigation Planning Guidance* and the reference material described above. You can obtain information on this course from your FEMA Regional Office.

Special Considerations:	It should be noted that DMA 2000 specifically requires mitigation planning for *natural hazards*, but not for manmade hazards. However, FEMA supports those jurisdictions that choose to consider *technological and manmade hazards* in their respective mitigation plans. While it is true that a State, Tribal, or Local Mitigation Plan can be approved under the Act without consideration of these hazards, the *Multi-Hazard Mitigation Planning Guidance* can be helpful in developing and evaluating plans that include these hazards as part of a comprehensive hazard mitigation strategy. For more information on integrating technological and manmade hazards in mitigation plans, please see: *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7); available at http://www.fema.gov/plan/mitplanning/howto7.shtm.

DMA 2000 MITIGATION PLANNING PROVISIONS

As a result of FEMA's previous mitigation planning requirements, such as State planning under Section 409 of the Stafford Act, and plan requirements associated with the Flood Mitigation Assistance (FMA) Program of the National Flood Insurance Program (NFIP), States and many communities have developed hazard mitigation plans. The most successful of these plans—where practical, meaningful mitigation actions have been the result—have two common elements:

- Comprehensive risk and capability assessments that form a solid foundation for decision making; and
- Input from a wide range of stakeholders who would play a role during implementation of recommended mitigation actions at the Federal, State, and local levels.

Accordingly, the Disaster Mitigation Act of 2000 emphasizes greater interaction between State and local mitigation planning activities, and highlights the need for improved linkage of hazard and capability analyses to State and local hazard mitigation strategies. At the same time, FEMA has a continuing interest in streamlining the mitigation planning and implementation process. The implementation of planned, pre-identified, cost-effective mitigation actions based on a sound hazard identification and assessment of risk will make a major contribution to such streamlining.

The DMA 2000 mitigation planning provisions, along with other sections of the Act, provide a significant opportunity to reduce the Nation's disaster losses. The language in the Act, taken as a whole, emphasizes the importance of strong State, Tribal, and local planning processes, and comprehensive mitigation program management at the State level. FEMA strongly believes that with hazard mitigation planning, as with most other planning efforts, the actual process of planning is as important as the resultant plan. Therefore, we consider the plan as the written record, or documentation, of the planning process. This is why some of the plan requirements ask for a "discussion" or "description" of a

process or development of a planning product (such as goals, or hazard identification).

To emphasize the importance of the process, we have taken, to the extent possible, a "performance standard," rather than a "prescriptive" approach to the planning requirements. This means that the requirements are designed to identify, generally, *what* should be done in the process and documented in the plan, rather than specify exactly *how* it should be done. This approach recognizes and appreciates the inherent differences that exist among State, Tribal, and local governments with respect to size, resources, capability, and vulnerability.

Specifically, DMA 2000 enacted the following provisions relative to mitigation planning:

Standard State Mitigation Plans (§201.4 of the Rule): States with an approved Standard State Mitigation Plan will qualify for HMGP funding based on 15% for amounts not more than $2,000,000,000, 10% for amounts of more than $2,000,000,000 and not more than $10,000,000,000, and 7.5% on amounts of more than $10,000,000,000, and not more than $35,333,000,000 of the total estimated eligible Stafford Act disaster assistance (new formula per Post-Katrina Emergency Management Reform Act of 2006, October 2, 2006). Generally, States are required to coordinate mitigation planning with Tribal and local jurisdictions, and document funding and technical assistance they will provide to these jurisdictions. More specifically, §201.4 requires that plans meet the following basic requirements to receive approval:

- ✓ describe how the State coordinates with local mitigation planning efforts;
- ✓ develop a mitigation strategy based on local and State vulnerability analyses and risk assessments;
- ✓ describe how the State provides funding or technical assistance to local governments;
- ✓ discuss how the State prioritizes jurisdictions that will receive mitigation planning and project grants and other State assistance; and
- ✓ establish a plan maintenance process.

- **Enhanced State Mitigation Plans** (§201.5 of the Rule): States that have an approved Enhanced State Mitigation Plan at the time of a disaster declaration will qualify to receive HMGP funds based on up to 20% of the total estimated eligible Stafford Act disaster assistance. Specifically, §201.5 requires that Enhanced Plans meet all the requirements of the Standard Plan and in addition:

  - ✓ demonstrate a broad, programmatic mitigation approach, and

- ✓ demonstrate a systematic and effective administration and implementation of existing mitigation programs.

- **Local Mitigation Plans** (§201.6 of the Rule): Local jurisdictions must also demonstrate that proposed mitigation actions are based on a sound planning process that accounts for the inherent risk and capabilities of the individual communities.

- **Tribal Mitigation Plans:** Tribal governments will have the opportunity to fulfill the planning requirements either as a grantee or as a subgrantee.

- **Funding for Plan Development:** DMA 2000 authorizes up to 7% of available HMGP funds for State, Tribal, or local planning purposes. Also, funds from the Pre-Disaster Mitigation (PDM) program may be used to develop mitigation plans, and the FMA program provides annual grant funds for flood mitigation planning. Other agencies have funding available that may be used for hazard mitigation planning. For example, the National Oceanic and Atmospheric Administration's Coastal Zone Management (CZM) Program has funded coastal hazard mitigation activities, including planning.

- **Deadlines and Requirements for Regular Plan Reviews and Updates:** In order to apply for a FEMA PDM **project** grant, Tribal and local governments must have a FEMA-approved mitigation plan. Tribal and local governments must have a FEMA-approved mitigation plan in order to receive HMGP **project** funding for disasters declared on or after November 1, 2004. States and Tribes must have a FEMA-approved Standard or Enhanced Mitigation Plan in order to receive non-emergency Stafford Act assistance (i.e., Public Assistance categories C-G, HMGP, and Fire Management Assistance Grants) for disasters declared on or after November 1, 2004. State mitigation plans must be reviewed and reapproved by FEMA every three years. Local Mitigation Plans must be reviewed and reapproved by FEMA every five years.

- **Plan updates**. In addition to the timelines referenced above, the Rule includes the following paragraphs that pertain directly to the update of State and local plans,

  - ✓ §201.3(b)(5) [FEMA Responsibilities]…Conduct reviews, at least once every three years, of State mitigation activities, plans, and programs to ensure that mitigation commitments are fulfilled….

  - ✓ §201.4(d) *Review and updates*. [State] Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities and resubmitted for approval…every three years.

- ✓ §201.6(d) [Local] plans must be reviewed, revised if appropriate, and resubmitted for approval within five years in order to continue to be eligible for…project grant funding.

Plan updates must demonstrate that progress has been made in the past three years (for State plans), or in the past five years (for local plans), to fulfill commitments outlined in the previously approved plan. This will involve a comprehensive review and evaluation of each section of the plan and a discussion of the results of evaluation and monitoring activities detailed in the *Plan Maintenance* section of the previously approved plan. FEMA will leave to State discretion, consistent with this plan update guidance, the documentation of progress made. Plan updates may validate the information in the previously approved plan, or may involve a major plan rewrite. In any case, a plan update is NOT an annex to the previously approved plan; it must stand on its own as a complete and current plan.

States may determine, consistent with this guidance, the type and level of detail of local plan information that they incorporate into the State plan. A guiding principle is that the documentation provided be sufficient to maintain the effectiveness of the plan as a primary and up to date tool for risk reduction.

NEW REGULATION FOR FLOOD INSURANCE REFORM ACT OF 2004 AND TRIBAL PLANNING PROVISIONS

The Flood Insurance Reform Act of 2004 (P.L. 108-264) created two new grant programs, Severe Repetitive Loss (SRL) and Repetitive Flood Claims (RFC), and modified the existing Flood Mitigation Assistance (FMA) program. The RFC is currently being implemented through guidance. FEMA has prepared a regulation to implement the new SRL and changes to the FMA program, and anticipates it to be published during the summer of 2007. The regulation is *expected* to have the following impacts on State and local mitigation planning:

- The SRL program will require a local mitigation plan as a condition of project grants (consistent with other grant programs).
- Provide criteria for provisions of State mitigation plans which, if included in these plans, will increase the Federal cost share to 90/10 for mitigation of severe repetitive loss properties funded under the FMA and SRL programs.
- Clarifies criteria for local plans: one plan will be required for all mitigation programs (i.e., HMGP, PDM, FMA, and the new SRL).

Included in the updated regulation is a new section for tribal mitigation plans. Previously, Indian tribal governments could develop plans under either the State or local criteria, although neither of these options has sufficiently met the needs of these governments. The new section will accommodate some of the issues relating to Indian tribal governments, and streamline their roles and responsibilities with respect to mitigation planning. Implementation of the tribal mitigation planning section will be phased in over time, so that plans under development when the regulation is published will not be impacted by any changes.

FEMA will provide guidance for States and local and Indian tribal governments on meeting the requirements of this new regulation shortly after it is published.

USING THE *MULTI-HAZARD MITIGATION PLANNING GUIDANCE*

Organization of the Multi-Hazard Mitigation Planning Guidance

The *Multi-Hazard Mitigation Planning Guidance* is divided into four sections following this Introduction. Parts 1, 2, and 3 address the requirements for the Standard State, Enhanced State, and Local Plans, respectively. These sections contain the language of the Rule, an explanation clarifying the intent of the Rule requirements, excerpts of plans to illustrate application of the requirements, and references to a series of resources that address particular planning issues in more detail. Section 4 contains Plan Review Crosswalks for scoring each of these three types of plans.

For Part 1 - Standard State Plans, and Part 2 – Enhanced State Plans, guidance relating to updating the plans has been incorporated for each regulatory requirement directly underneath the original explanation, and is labeled Plan Update. **It is important to note that the updated plan must meet the requirements of the original explanations as well as the update guidance explanation.** The update guidance is meant to highlight issues that apply specifically to those plans being updated, and is intended to complement – not replace – the original guidance. In some cases, the original explanation has been revised to provide further clarification. Where such revisions have been made, a note with the date of the revision has been placed in the left margin next to the new language. As stated earlier, the previously approved plan may not necessarily need comprehensive or significant revision for the update. The update process requires that each section be reviewed and evaluated to ensure that it is still valid, or to establish that it needs to be revised and brought up to date.

NOTE: At this time (June 2007), the examples for the Standard and Enhanced Plans have <u>not</u> yet been revised. The reader is cautioned not to confuse the terms “Required Revisions” and “Revised Submittal” that are used in the examples with the new language for the “Plan Update.”

The Part 4 Plan Review Crosswalk for Standard State Plans and Plan Review Crosswalk for Enhanced State Plans have been revised to reflect the new plan update language added to the explanations in Parts 1 and 2. New elements have been added to the crosswalk in those cases where the existing crosswalk elements were insufficient for plan updates. In other cases, the update requirement is covered by minor changes in the wording of the original requirement.

This June 2007 document includes plan update guidance and requirements for Standard State Plans and Enhanced State Plans only. Similar guidance for updating Local Mitigation Plans is being prepared. The next version of this Multi-Hazard Mitigation Planning Guidance will include guidance for updating Local Plans.

The Rule is as published at 44 CFR 201. Language in brackets does not appear in the Rule, but has been added to provide the proper context. For example: *[The plan must include] a description of the planning*

process. An ellipsis has been used to indicate that other phrases precede or follow the requirement language. For example: *… using maps where appropriate*.

Plan Evaluation Methodology

The *Multi-Hazard Mitigation Planning Guidance* outlines a process for the review of State and Local Mitigation Plans based on the requirements described in the Rule. The Plan Review Crosswalks in Section 4 of this document are important tools in both the review and development of complete plans, as they mirror the requirements in the Rule. Standard State Plans must meet the prerequisites and receive a score of "Satisfactory" for each requirement for the plan to be approved. To be approved as an Enhanced State Plan, a score of "Satisfactory" must be attained for all Standard and Enhanced requirements. Local Plans must be submitted to the State Hazard Mitigation Officer for initial review and coordination, before submittal to the appropriate FEMA Regional Office for formal review and approval. Local Plans must also receive a score of "Satisfactory" for all requirements to be approved.

Except for prerequisites that must be met before the plan can be approved, the reviewer must score requirements based on the following scoring system:

N **Needs Improvement:** The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S **Satisfactory:** The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

The final, completed Plan Review Crosswalk provides the State, Tribe, or local jurisdiction with:

- a score for each requirement;
- reviewer comments for requirements that need improvement; and
- a determination of whether the plan is approved by FEMA (and the State, if a Local Plan).

In those cases where FEMA reviewers provided "recommended revisions" for those requirements that the previously approved plan met, the plan update process provides an excellent opportunity to incorporate these recommendations into the revised plan. When FEMA reviews the updated plan, it will assess whether and how the plan addresses these recommendations, although it is not required that the plan does so.

Special Considerations:

When reviewing plans, the evaluator may find it helpful to first read the plan and identify the appropriate sections that correspond to the Rule's requirements. The Plan Review Crosswalks include a column (second from left), "Location in the Plan," that the State, Tribe, or jurisdiction submitting the plan can complete to assist reviewers in determining where in the plan the requirements are addressed.

Special Considerations:	With the concurrence of FEMA Regions, States can insert additional State planning requirements, tailoring *Part 3 – Local Mitigation Plans* of the *Multi-Hazard Mitigation Planning Guidance* to account for State-specific requirements.

PLAN SUBMITTAL AND REVIEW PROCEDURES

Plan Submittal Procedures

State Plans

FEMA Regional Offices will work with States to identify procedures and schedules that will facilitate plan review, technical assistance, and approval. The following *recommended* approaches may be helpful:

- The State may share drafts of the entire plan, or at least the results of the risk assessment (because of the importance of the risk assessment to the quality of the overall plan), with FEMA well in advance of finalizing the plan. Early FEMA feedback will let the State know either that it is on the right track, that additional material needs to be added, or that major revisions need to be made in time to develop and submit an approvable plan by established deadlines.

- The State is strongly encouraged to submit a final draft to FEMA for review **before** seeking formal adoption of the plan by the appropriate officials, agencies, or organizations. If FEMA determines that the plan is "approvable pending adoption," i.e., the plan meets all requirements except for the formal adoption and final submittal, the State can then proceed with the adoption process, knowing the adopted plan will be approved. If there are deficiencies in the plan, the responsible parties will be able to address them before taking the plan through adoption, and avoid the potentially awkward situation of having an adopted plan not be approved.

- Once the State obtains FEMA approval of the final draft, it can then proceed with formal adoption, and submit the adopted plan to FEMA for formal approval.

- States should consult with their FEMA Regional Office early enough to ensure that they will be able to obtain FEMA review and approval of their plans in time to meet established deadlines.

Local Plans

The Rule requires that Local Plans be submitted to the State Hazard Mitigation Officer for initial review and coordination, with the State then forwarding the plans to FEMA for formal review and approval. The following *recommended* approaches may be helpful:

- States and communities should coordinate with each other to identify procedures and schedules that will facilitate State support of local planning efforts and initial review of Local Plans.

- Local jurisdictions may share drafts of their entire plan, or at least the results of the risk assessment (because of the importance of the risk assessment to the quality of the overall plan), with the State well in advance of finalizing the plan. Early feedback from the State will let the jurisdiction know that it is on the right track, that additional material needs to be added, or that major revisions need to be made in time to develop and submit an approvable plan by established deadlines.

- Local jurisdictions are strongly encouraged to submit a final draft to the State and FEMA for review **before** seeking formal adoption of the plan by the appropriate officials, agencies, or organizations. If FEMA determines that their plan is "approvable pending adoption," i.e., the plan meets all requirements except for the formal adoption and final submittal, they can then proceed with the adoption process, knowing the adopted plan will be approved. If there are deficiencies in the plan, the responsible parties will be able to address them before taking the plan through adoption, and avoid the potentially awkward situation of having an adopted plan not be approved.

- Once FEMA approves the final draft of the plan, the local jurisdiction can then proceed with formal adoption, and submit the adopted plan to FEMA for formal approval.

- Local jurisdictions should consult with their State Hazard Mitigation Officer early enough to ensure that they will be able to obtain FEMA review and approval of their plans in time to meet established deadlines.

Tribal Plans

The modifications to the planning regulation are expected to provide a new section for tribal mitigation plans. This will allow Tribal governments to develop a single plan that will satisfy the mitigation grant program requirement, and will allow them to apply directly to FEMA as a grantee, or through the State as a subgrantee.

FEMA Regional Offices will work with tribal governments to identify procedures and schedules that will facilitate plan review, technical

assistance, and approval. The following *recommended* approaches may be helpful:

- Indian tribal governments may share drafts of the entire plan, or at least the results of the risk assessment (because of the importance of the risk assessment to the quality of the overall plan), with FEMA well in advance of finalizing the plan. Early FEMA feedback will let the tribal government know either that it is on the right track, that additional material needs to be added, or that major revisions need to be made in time to develop and submit an approvable plan by established deadlines.

- Tribal governments are strongly encouraged to submit a final draft to FEMA for review **before** seeking formal adoption of the plan by the appropriate officials, agencies, or organizations. If FEMA determines that the plan is "approvable pending adoption," i.e., the plan meets all requirements except for the formal adoption and final submittal, the tribal government can then proceed with the adoption process, knowing the adopted plan will be approved. If there are deficiencies in the plan, the responsible parties will be able to address them before taking the plan through adoption, and avoid the potentially awkward situation of having an adopted plan not be approved.

- Once the tribal government obtains FEMA approval of the final draft, it can then proceed with formal adoption, and submit the adopted plan to FEMA for formal approval.

Tribal governments should consult with their FEMA Regional Office early enough to ensure that they will be able to obtain FEMA review and approval of their plans in time to meet established deadlines.

Timeframe for Review

Once a final plan is submitted, the FEMA Regional Office will complete the review within 45 days from the day it is received, *whenever possible*. In the event that the plan is not approved, the Regional Office will provide comments on the areas that need improvement.

Plan Updates

States should develop a schedule that allows for the plan (Standard and/or Enhanced) update and approval process to occur within three years from the last approval date. Local jurisdictions should develop a schedule that allows a plan update and approval to occur within five years from the last approval date. Tribal plans developed as State level plans will have a three-year update schedule; Tribal plans developed as local level plans will follow the five-year update schedule. [This will be updated to reflect the new regulation.] All jurisdictions should consider the time needed for State and/or FEMA reviews as well as time that may be needed for make required changes identified in the reviews ahead of the deadline. It should be noted that States could choose to establish a schedule for more frequent Local Plan updates.

Special Considerations:	FEMA no longer requires States to revise their mitigation plan after every disaster declaration, as it did under former section 409 of the Stafford Act. We do, however, recommend that States consider updating their plans whenever a disaster or other circumstances significantly affect its mitigation priorities. Additionally, because the State Administrative Plan required under the HMGP (44 CFR 206.437) must be updated for each new disaster, States may prefer to maintain it separately from the mitigation plan. The Administrative Plan could reference the mitigation priorities identified in the mitigation plan, in order to satisfy the Administrative Plan requirement to establish priorities for the selection of mitigation projects.

PART 1 – STANDARD STATE MITIGATION PLANS

The mitigation plan demonstrates the State's commitment to reducing the risks from natural hazards, and should serve as a guide for all levels of State decision makers. The plan should detail how the State will address planning for natural hazards and the resources they are going to commit to the process.

The Plan, whether a first-time submittal or an updated plan, must meet certain basic requirements to receive approval, including:

- The mitigation strategy should be based on local and State vulnerability analyses and risk assessments.
- The State must describe how they will coordinate with local mitigation planning efforts.
- The State must describe how they will provide funding or technical assistance to local governments.
- The State must discuss how they will prioritize jurisdictions that will receive mitigation planning and project grants and other State assistance.
- There must be a formal plan maintenance process.

Each requirement must receive a satisfactory score for the plan to be approved. Each State submitting a hazard mitigation plan must meet the Prerequisite – Adoption by the State, before the plan can be approved by FEMA.

In those cases where FEMA reviewers provided "recommended revisions" for those requirements that the previously approved plan met, the plan update process provides an excellent opportunity to incorporate these recommendations into the revised plan. When FEMA reviews the updated plan, it will assess whether and how the plan addresses these recommendations, although it is not required that the plan does so.

The sections covered in Part 1 – Standard State Mitigation Plans include:

- Prerequisite – Adoption by the State
- Planning Process
- Risk Assessment
- Mitigation Strategy
- Coordination of Local Mitigation Planning
- Plan Maintenance Process

PREREQUISITE

ADOPTION BY THE STATE

Requirement §201.4(c)(6) and §201.4(c)(7):	The plan must: ▪ be formally adopted by the State prior to submittal to [FEMA] for final review and approval [and] ▪ include assurances that the State will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c). The State will amend its plan whenever necessary to reflect changes in State or Federal laws and statutes as required in 44 CFR 13.11(d).
Explanation:	An appropriate body in the State **must** adopt the plan. This could be, for example, the State Legislature or the Governor, depending on the State's established procedures. States with hazard mitigation teams or councils may choose to use these bodies to adopt the plan. At a minimum, the plan **must** be endorsed by the director of the State agency responsible for preparing and implementing the plan, as well as the heads of other agencies with primary implementation responsibilities. Adoption by the State: ▪ Demonstrates the State's commitment to fulfilling the mitigation objectives outlined in the plan. ▪ Legitimizes the plan and authorizes the responsible agencies identified in the plan to execute their responsibilities. The section on assurances relates to the State's understanding and accountability in complying with Federal statutes and regulations in effect when it receives grant funding as prescribed in 44 CFR 13.11(c). Additionally, as required in 44 CFR 13.11(d), the State **must** amend its plan to reflect new or revised Federal regulations or statutes, or changes in State law, organization, policy, or State agency operation. The amendment can be added as an annex to the plan and later incorporated into the appropriate section(s) when the plan is formally updated as required in §201.4(d) of the Rule. The resolution of adoption can include a statement assuring FEMA that the State will comply with both of these CFR requirements. The plan **must** include a copy of the resolution of adoption.
Plan Update:	An appropriate body in the State **must** adopt the updated plan regardless of the degree of modifications to the original plan.

Resource: For more information about adopting a mitigation plan, see:

- ✓ *Bringing the Plan to Life (*FEMA 386-4), Step 1.

Scoring:

- ❑ Not Met. The plan has not been formally adopted by the State.
- ❑ Not Met. The plan has been formally adopted by the State, but a copy of the signed resolution is not included.
- ❑ Met. The plan has been formally adopted by the State, and a copy of the signed resolution is included.

PLANNING PROCESS

§201.4(b) recommends that the State coordinate with other State agencies, appropriate Federal agencies, and interested groups during the planning process. Early involvement of other parties provides the opportunity for integration of mitigation actions with other planning efforts. It also allows for building partnerships with other agencies and interested groups to facilitate data gathering, analysis, and later implementation of mitigation strategies. §201.4(c)(1) requires that the State document this planning process.

The planning process is the heart of both the original mitigation plan and updates to that plan. In a plan update, the description of the planning process is intended to inform the reader what steps the planning team took to review, evaluate, and update each section of the plan, as well as provide the rationale for sections that were not changed. It should be based on the update process described in the plan maintenance section of the previously approved plan. This is the blueprint for constructing the updated plan, and instills within it a necessary continuity.

States may experience fluctuations in staffing and in-house knowledge of the hazard mitigation planning process. The description of the planning process will be especially valuable to new staff and successive leaders as it provides a clear and coherent picture of the steps taken to update the plan. Also, during intense decision-making situations, such as the period following a catastrophic event[1], an understanding of the planning process and the rationale used to develop the risk assessment and mitigation strategy will be of assistance as mitigation priorities are reassessed and revised.

This section includes the following three subsections:

- Documentation of the Planning Process
- Coordination Among Agencies
- Program Integration

[1] *any large scale event, the result of either man made or natural hazards, that, for a protracted period, affects governments' ability to conduct and deliver the day to day civil functions and services, and has long-term consequences for the local, state or national economy.*

DOCUMENTATION OF THE PLANNING PROCESS

Requirement §201.4(c)(1):	[The State plan must include a] description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated.

Explanation: A description of the planning process **must** include how the planning team or committee was formed, how input was sought from individuals or other agencies, and how the plan was prepared.

Plan Update: A description of the planning process is required for the update. The update **must** describe the process used to review and analyze each section of the plan. If the planning team or committee finds that some sections of the plan warrant an update, and others do not, the process the team undertook to make that determination **must** be documented in the plan.

Resource: For more information on the planning process, see:

- ✓ *Getting Started* (FEMA 386-1), Steps 1 – 4.

Examples:

N/S

Original Submittal:

The State Hazard Mitigation Plan (the Plan) was prepared by the State Hazard Mitigation Section. This section, created in 2001 and headed by the State Hazard Mitigation Officer, is responsible for leading and coordinating mitigation and long-term redevelopment efforts.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(1)		▪ The description does not provide details on how various parties were involved in the planning process, what meetings were held to solicit involvement, how long the process took, etc. ▪ The plan was prepared by only one State agency, with no mention of participation by other agencies or groups.

Required Revisions:

For a "Satisfactory" score, the plan must provide more details on how the plan was prepared and what agencies were involved.

N S

Revised Submittal:

The State Hazard Mitigation Plan (the Plan) was prepared by the State Hazard Mitigation Section. This section, created in 2001 and headed by the State Hazard Mitigation Officer, is responsible for leading and coordinating mitigation and long-term redevelopment efforts. **The Hazard Mitigation Section organized a Hazard Mitigation Committee (HMC), composed of 14 representatives from Federal and State agencies, as well as local governments, the private sector, and non-profit and civic organizations to assist the section in preparing the Plan (see pages X, Y, and Z for a list of these agencies). Not all invited civic or non-profit groups or business leaders agreed to join the HMC. However, two regional public forums were organized: one at the beginning of the planning process to elicit concerns and solicit ideas; and a second public forum was held for the general public to review and comment on the draft plan. These forums were widely publicized in local newspapers, and flyers were mailed to agencies that had expressed an interest in participating in some capacity. Citizens and interested groups could also access the State public Web site to review the draft plan and provide comments online. The HMC met every two weeks for the first three months and later once per month. The plan was completed over a 12-month period.**

COORDINATION AMONG AGENCIES

Requirement §201.4(b):	The [state] mitigation planning process should include coordination with other State agencies, appropriate Federal agencies, interested groups, and … .

Explanation:

In order to encourage States to develop plans that will be used as guides for statewide mitigation activities, and for citizens and the private sector to support such activities, the Rule recommends States demonstrate coordination with all levels of government, and representatives from the private and non-profit sectors. The plans *should* describe how the State interacted with Federal, State, regional, and local agencies, as well as other interested parties such as business, industry, and professional associations, non-profit groups, and community representatives in the development of the plan.

Of particular importance is the participation by agencies and groups that can contribute resources to prepare the plan and by agencies that will likely implement mitigation actions. By including these agencies in the planning process, the State can build partnerships that will facilitate the implementation phase of the plan. Merely contacting agencies to solicit input or sending a draft plan for an agency to review does not constitute active participation. Participants *should* play an active role throughout the planning process and, whenever possible, be involved from the beginning. The State *should* identify additional participants as opportunities arise (e.g., after a disaster).

Examples of how coordination may be demonstrated:

- Description of outreach efforts to engage interested parties.
- Description of the types and frequency of meetings of task forces and committees, inter-disciplinary/inter-agency mitigation planning teams, or with interested agencies and private sector organizations.
- Discussion of the nature of the Memoranda of Understanding (MOU) or other work agreements.
- Description of how interested parties who could not participate on a regular basis were kept informed and how they provided comments.

Plan Update:

The updated plan *should* describe how the State interacted with all levels of government as indicated above. It *should* also describe how coordination among agencies changed since approval of the previous plan.

Resource:

For information on establishing a mitigation planning team and building partnerships, see:

✓ *Getting Started* (FEMA 386-1), Step 2.

Examples:

Original Submittal:

The State Hazard Mitigation Committee (HMC) distributed the mitigation plan to other State, Federal, and local agencies. Each participating agency had an opportunity to comment on preliminary and draft versions of the plan. The HMC incorporated appropriate comments and distributed a final copy of the plan to the participants.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(b)		▪ Coordination only involved notification of other government agencies. ▪ No effort was documented regarding contacting or soliciting involvement from civic, private, or not-for profit groups, including those known to assist in the event of disasters.

Required Revisions:

A "Needs Improvement" score on this requirement will not preclude the plan from passing. For a "Satisfactory" score, the mitigation plan must demonstrate that the planning process included active coordination with and participation by other agencies and/or groups.

Special Considerations:

This may not be an easy item to "fix" if adequate coordination has not occurred to date. The State would have to take its plan back for review by potential participants and revise the content according to their input. This could be a substantial effort. On the other hand, if the State actually did the coordination, but did not describe it adequately, then the State needs to do a better job of documenting its coordination effort.

Revised Submittal:

The State Hazard Mitigation Committee (HMC) ~~distributed~~ **coordinated the development of** the mitigation plan ~~to~~ **with** other State, Federal, and local agencies. **The HMC, on behalf of the Governor, also solicited participation from industry associations, volunteer agencies, and other private and non-profit sector representatives. Fourteen representatives in total committed their time and available resources to develop a mitigation strategy that would protect life, property, and the environment as well as contribute to the economic well being of the State.**

Each participating agency **and group presented its programs, identified mitigation opportunities, and subsequently** had an opportunity to comment on preliminary and draft versions of the plan. **The HMC jointly reviewed each agency's function and identified more opportunities, including some applicable to agencies not present.** The HMC incorporated appropriate comments and distributed a final copy of the plan to the participants.

Agency	Designated Responsibilities
State Office of Natural Resources	To review mitigation project applications and plans to ensure their environmental soundness.
State Building Code Office	To provide information about State building code requirements and best construction practices.
State Office of Economic Development	To identify opportunities to promote economic development through mitigation initiatives. To act as a liaison between local economic development agencies and the HMC to identify ways in which economic development initiatives can encourage mitigation.
State Office of Emergency Management	To coordinate mitigation planning and project implementation. To serve as a liaison between FEMA's Federal Insurance and Mitigation Administration and the HMC.
State Public Works and Utility Office	To help local communities identify mitigation actions for public infrastructure. To identify state resources and infrastructure vulnerable to hazards.
State Department of Transportation	To help local communities identify mitigation actions for State roads and bridges. To identify state resources and infrastructure vulnerable to hazards.
State Planning Office	To educate local governments (specifically local planning departments) on new hazard mitigation planning requirements and to aid in the incorporation of mitigation concerns into local comprehensive planning efforts.
State Historic Preservation Office	To help communities identify ways to mitigate hazards that threaten historic resources in their communities. To assist communities identified in Section 106 review processes for mitigation projects in compliance with Federal and State historic preservation regulations.

Agency	Designated Responsibilities
State Parks Association	To identify resources for acquiring funding to create green- and open-spaces as mitigation actions.
Association of Homebuilders	To represent private development interests and concerns in relation to mitigation projects and regulations.
Manufactured Housing Association	To identify best practices in constructing or reconstructing low-cost, manufactured housing threatened by hazards.
Big River Watershed Society	To coordinate efforts to improve water quality, recreation activities, and other concerns with State mitigation activities.
State Association of Disaster Relief	To provide insight into mitigation actions as they relate to response and recovery.
State Association of County Govt.	To liaison between HMC and local governments about hazard mitigation planning requirements. To educate local officials about the resources available for mitigation planning assistance and training.

PROGRAM INTEGRATION

Requirement §201.4(b):	[The State mitigation planning process should] be integrated to the extent possible with other ongoing State planning efforts, as well as other FEMA mitigation programs and initiatives.

Explanation:

Coordination can result in identifying opportunities to integrate planning efforts and mitigation actions. FEMA has found that mitigation plan implementation is most effective when States integrate mitigation planning efforts with those of other State planning programs and initiatives.

States might demonstrate that they have made efforts at integration by:

- Reviewing existing plans and reports to identify opportunities to integrate mitigation actions.
- Having mitigation planners/specialists serve on other State program and planning teams.
- Consolidating the planning requirements for all State mitigation programs (e.g., HMGP, FMA, CRS, local comprehensive plans, and land use plans).
- Identifying overall goals or priorities common to other State planning efforts.
- Requesting that legislation be passed or issuing an Executive Order mandating integration of mitigation actions into other planning initiatives.
- Outlining the State's approach and providing a timeline for integrating actions.
- Describing actual ongoing efforts where mitigation actions have been integrated into planning mechanisms (e.g., comprehensive plans, capital improvement plans, and emergency operation plans) and implementation tools (e.g., building codes, floodplain ordinances, and land use regulations).

Plan Update:

In addition to discussing what integration efforts have taken place to date, the update *should* discuss State planning integration efforts and opportunities that were identified in the previously approved plan, and any unforeseen obstacles that emerged since approval of the previous plan.

Resource:

For information on integrating hazard mitigation actions with other initiatives, see:

✓ *Bringing the Plan to Life* (FEMA 386-4), Step 2.

Examples:

Original Submittal:

The State Hazard Mitigation Committee (HMC) reviewed several State agencies' plans to identify programs and policies that promote hazard mitigation.

Twenty communities currently participate in the Community Rating System (CRS), part of the National Flood Insurance Program. Each has prepared a flood mitigation plan and has received funding for flood mitigation projects.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(b)		▪ The plan does not describe all programs or policies examined, nor does it identify the mitigation efforts to be integrated into the State's CRS program.

Required Revisions:

A "Needs Improvement" score on this requirement will not preclude the plan from passing. For a "Satisfactory" score, the mitigation plan must document how mitigation actions are integrated into other State planning efforts as well as Federal mitigation programs.

Revised Submittal:

The State Hazard Mitigation Committee (HMC) reviewed several State agencies' plans to identify programs and policies that **currently** promote ~~hazard mitigation~~ **or could potentially further mitigation initiatives around the State (see Table XX for a summary of these findings).**

One program the State is implementing is the Growing Smart Initiative, administered by the Division for Sustainable Development in the State Department of Planning and Development. The Growing Smart Initiative has several components related to hazard mitigation, including funding to encourage local governments to remove structures from high hazard areas, creating open space in environmentally sensitive areas such as the 100-year floodplain, and providing financial incentives to encourage businesses to upgrade facilities in central business districts. The HMC will continue its efforts to integrate hazard mitigation-related concepts into the existing Growing Smart framework through:

- **Developing brochures using the Growing Smart logo to**

promote hazard mitigation in the business community.

- **Discouraging development in hazard areas such as steep slopes with landslide potential.**
- **Educating local governments about the benefits of adopting building standards to mitigate against wind and earthquake hazards.**

Additionally, the Department of Public Works takes into account hazard-prone areas when siting facilities and infrastructure such as water and sewer lines. The Public Works Department avoids such areas, thereby discouraging development while protecting services in the event of a disaster.

Twenty communities currently participate in the Community Rating System (CRS), part of the National Flood Insurance Program. Each **community** has prepared a flood mitigation plan and has received funding for flood mitigation projects **(see Appendix XX for details)**. **Additionally, the State is currently developing a strategy to assist other communities to participate in the CRS, having set a goal to provide technical support to five communities per year. The strategy includes providing additional funding to communities that have adopted FMA Plans, to upgrade these plans into all-hazard plans.**

RISK ASSESSMENT

§201.4(c)(2) of the Rule requires that States undertake a risk assessment that provides the factual basis for developing a mitigation strategy. This provision encourages States to produce a meaningful analysis of the hazards and vulnerabilities that affect them, enabling States to prioritize jurisdictions or geographic areas to receive funding and technical assistance for conducting more detailed local risk and vulnerability assessments.

The purpose of the updated risk assessment is to present the current statewide overview of potential losses to guide implementation of mitigation measures, to prioritize jurisdictions most at risk from natural disasters, and to integrate data provided in local risk assessments.

The updated risk assessment will also include the integration of new data, where available, such as National Flood Insurance Program maps or studies, HAZUS analyses, or reports from other Federal and State agencies. If the previously approved plan identified data deficiencies that would be addressed at a later time, then FEMA would expect the new information to be incorporated in the updated risk assessment. However, if the data deficiencies have not been resolved, they must be addressed in the updated plan, accompanied by an explanation of why they remain and an updated schedule to resolve the issue.

When the State plans were originally prepared, there were few local plans that met FEMA's planning requirements. Therefore, States had limited local information on which to base their plans. Since then, many local plans have been approved and adopted, providing States with the opportunity to better coordinate with local jurisdictions and ensure that local risk assessments complement the State risk assessment.

Additionally, section 201.4(d) requires the State plan be updated regularly to address changes in development and mitigation priorities. This is reflected in the guidance language under §201.4(c)(2)(ii) and §201.4(c)(2)(iii).

This section includes the following six subsections:

- Identifying Hazards
- Profiling Hazards
- Assessing Vulnerability by Jurisdiction
- Assessing Vulnerability of State Facilities
- Estimating Potential Losses by Jurisdiction
- Estimating Potential Losses of State Facilities

IDENTIFYING HAZARDS

Requirement §201.4(c)(2)(i):	[The State risk assessment shall include an] overview of the type … of all natural hazards that can affect the State … .
Explanation:	A State hazard mitigation plan will only be effective if it accounts for all sources of risk. The intent of this requirement is to insure that all hazards potentially affecting the State are identified. During the State's planning process (as evaluated in the Planning Process section of this document), it may be determined that some of these hazard types do not pose a significant enough threat to justify further study or the identification of corresponding mitigation actions. However, the mitigation plan *should* clearly document that a thorough and comprehensive identification of hazards was performed by the State, including the fact that certain hazards were deemed not to be significant enough to warrant further study, to receive a satisfactory score for this requirement. This section *should* include a description of how the State collected the information to identify these hazards, including the sources of information. This process *should* also include incorporating the results of local level mitigation planning efforts to identify hazards as that information becomes available.
Plan Update:	The updated plan **must** address any newly identified hazards or hazards that have been determined to pose a more significant threat than was apparent when the previously approved plan was prepared. If improved descriptions of hazards identified in the previous plan are available, they **must** be incorporated into this section.
Special Considerations:	Although the Rule requires that States only identify natural hazards, States may include manmade hazards (i.e., technological or accidental events such as hazardous material accidents and terrorism or intentional acts such as the release of chemical agents) to provide a more complete analysis of hazards that may affect the States. However, plans will not be penalized for not including this information.
Resources:	For more information on identifying hazards, see: ✓ *Understanding Your Risks* (FEMA 386-2), Step 1. ✓ *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7), Phase 2. ✓ *HAZUS MH* http://www.fema.gov/plan/prevent/hazus/

Examples:

Original Submittal:

The State Mitigation Plan addresses the risk associated with the following hazards:

- Drought
- Flooding
- Hurricanes

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(2)(i)		▪ The plan did not include wildfires that have occurred in the past. ▪ The State did not indicate how these hazards were identified. As a result, it cannot be determined if this is a valid list of all relevant hazards. ▪ The State did not indicate if hazards identified as part of mitigation planning by local jurisdictions are or will be included in this listing.

Required Revisions:

For a "Satisfactory" score, the plan must include wildfires. The State is experiencing a drought and has had wildfires in the past under such conditions. While not required by the Rule, the plan should also document the process followed to identify hazards and identify the extent to which hazards identified through local mitigation planning have been or will be included in the State plan.

N S

Revised Submittal:

The State **Hazard Mitigation Committee (HMC) pursued the following steps to identify hazards that may affect the state:**

- **Review of past State and Federal disaster designations.**
- **Review of current Flood Insurance Rate Maps (FIRMs).**
- **Review of available local mitigation plans (see Appendix XX for a complete listing of local mitigation plans, including DMA 2000, FMA, and CRS, consulted as part of this planning process).**
- **Review of recent risk assessment related research by State and Federal agencies, as well as the State University's (SU) Emergency Management Program within the Department of Planning. This research involves long-range weather trends per the U.S. Meteorological Service as a predictor of potential periods of drought or increased hurricane activity and the probability of dam failures within the State per the recent SU study (see Appendix XX for a complete listing of studies consulted as part of this planning process).**
- **The HMC representative from the State Geological Survey was consulted regarding the earthquake risk in the State. She indicated that the risk was minimal (.001%/year of a 4.0+ earthquake); therefore, the HMC decided not to study the earthquake hazard any further.**

As a result, the HMC determined that the State Mitigation Plan **needed to** address ~~addresses~~ the risk associated with the following hazards:

- Drought
- Flooding, **including related potential for dam failures**
- Hurricanes
- **Wildfires**

PROFILING HAZARDS

Requirement §201.4(c)(2)(i):	[The State risk assessment shall include an overview of the] location of all natural hazards that can affect the State, including information on previous occurrences of hazard events, as well as the probability of future hazard events, using maps where appropriate … .

Explanation:

The plan **shall** provide an overview of the **location** of all natural hazards that can affect the State. The plan *should* describe the geographic boundaries in the State that would be affected by these hazards.

Where appropriate, the hazard analysis *should* also broadly identify on a map the areas of the State affected by each hazard, noting those areas most severely affected by each hazard. A composite map (i.e., a map showing combined information from different thematic map layers) can be provided for hazards that have a recognizable geographic boundary (i.e., hazards that are known to occur in particular areas of the State), such as floods, coastal storms, wildfires, tsunamis, and landslides.

For those hazards that are not geographically determined, plans *should* indicate their probable intensity. For example, for areas where tornadoes occur, plans should indicate the recorded intensities of previous events.

The plan **shall** also provide a discussion of **past hazard events**. This discussion *should* include:

- Information on the damages that occurred (e.g., costs of recovery, property damage, and lives lost) to the extent practicable.
- Level of severity (i.e., flood depth or extent, wind speeds, earthquake intensity).
- Duration of event.
- Date of occurrence.
- Sources of information used or consulted for assembling a history of past occurrences.

The plan **shall** also include information on the **probability** of future hazard events. In addition, it *should* describe the analysis or sources used to determine the probability and their magnitudes.

The plan *should* also describe conditions (i.e., topography, soil characteristics, meteorological conditions, etc.) in the planning area that mitigate the hazard effects or make the area more vulnerable to hazards.

Plan Update:

The plan update **must** continue to include occurrences of hazards profiled in the previous plan, and discuss new occurrences of hazard events. The updated plan **must** incorporate any new studies or technical information related to profiling hazards, such as new National Flood Insurance Program maps or studies, HAZUS studies, or reports from other Federal or State agencies that relate to:

- Location of natural hazards;
- Past hazard events;
- Probability of future hazard events.

While maps are not required, any maps included in the updated plan **must** be consistent with the updated information.

Resource:

For more information on profiling hazards, see:

✓ *Understanding Your Risks* (FEMA 386-2), Step 2.

✓ *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7), Phase 2.

✓ *HAZUS MH* http://www.fema.gov/plan/prevent/hazus/

Examples:

N/S

Original Submittal:

[For illustrative purposes, only the flood hazard is profiled in this example.]

Through analysis of existing Federal Flood Insurance Rate Maps (FIRMs) and Flood Insurance Studies (FISs), the Hazard Mitigation Committee (HMC) determined that every County in the State may be affected by the flooding hazard. A variety of factors affect the type and severity of flooding throughout the State, including topography, urban development and infrastructure, and proximity to the coastline.

The State has been affected by a number of floods over the past several years. Most notably, Hurricane Young in 1997 caused flooding that generated a Presidential Disaster Declaration for the Counties of Allwater, Bedlam, Calm-before-the-Storm, and Turmoil. The flood caused several million dollars in damages.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(2)(i)		▪ The plan did not include the location of the type of floods. ▪ The history of floods is only of recent years. ▪ The plan does not discuss probability. ▪ The State did not provide details about conditions, such as topography, that could make areas more or less vulnerable to each hazard. ▪ There is no indication of areas of the State that are more severely affected by each hazard. ▪ The State did not provide a map that identified the areas affected by each hazard.

Required Revisions:

For a "Satisfactory" score, the plan must describe the hazard areas, provide a more complete history of past events, and include the probability of future hazard events. While not required by the Rule, the plan should also document the process used to determine differences in vulnerability to the hazard; differentiate the ways in which areas of the State are affected; and provide a map or other tool to delineate hazard areas.

N S

Revised Submittal:

Flooding

Through analysis of existing Federal Flood Insurance Rate Maps (FIRMs) and Flood Insurance Studies (FISs), the Hazard Mitigation Committee (HMC) determined that every County in the State may be affected by ~~the~~ **riverine** flooding ~~hazard~~ **(see Flood Hazard Map in Appendix XX). The State regularly experiences 10-year floods and has on several instances suffered the devastating effects of 500-year floods. See Appendix XX for a history of floods and their related damages dating back to 1850. This history was assembled from the information provided in local hazard mitigation plans as well as the previous State Hazard Mitigation Plan.**

The probability of a flood event is expressed as the percent chance that a flood of a specific magnitude will occur in any given year. Table 1 summarizes the associated chance of occurrence for the type of floods the State has experienced.

Table 1: Flood Probability of Occurrence	
Flood Return Intervals	**Chance of Occurrence in Any Given Year**
10-Year	**10%**
50-Year	**2%**
100-Year	**1%**
500-Year	**0.2%**

~~The State has been affected by a number of floods over the past several years. Most notably, Hurricane Young in 1997 caused flooding that generated a Presidential Disaster Declaration for the Counties of Allwater, Bedlam, Calm-before-the-Storm, and Turmoil. The flood caused several million dollars in damages.~~

A variety of factors affect the type and severity of flooding throughout the State, including topography, urban development and infrastructure, and proximity to the coastline.

Riverine Flooding
Mountain Region (Allwater, Bedlam, Calm-before-the-Storm, and Turmoil Counties)

Flooding in the Mountain Region is characterized by high-velocity waters flowing to the valleys. During heavy rains from storm systems, including severe thunderstorms and tropical storms, water flows down from the mountain, collecting in, then overtopping, valley streams and rivers. The steep slopes of the region induce high velocities as the water flows downhill and downstream, in many cases producing flash flooding conditions. Because some towns in the Mountain Region have the majority of the corporate limits located in the valley and, therefore, often in the floodplain, flood waters have the potential to affect or even severely harm whole towns. Because of the steep topography, developable areas of the town are within the 100-year floodplain, and some are affected by 10- and 50-year floods. These conditions, especially in areas where flash floods are a problem, make response operations and evacuation very difficult, adversely affecting the safety of the residents.

These flash flooding response and evacuation problems were illustrated in Bedlam County during the summer of 1999. The passage of Tropical Storm Zoe created flash flooding in the towns of Chaos and Pandemonium. While the floodwaters only reached an estimated 10-year flood elevation, the sudden onset of the flood and swift waters did not allow warning to the residents and, consequently, a driver attempting to drive through waters that had overtopped a secondary road was swept away by the waters.

Furthermore, about 10 homes in Chaos and 15 homes in Pandemonium were flooded, creating an estimated $100,000 in damages (see Appendix XX for a detailed history of floods in this area).

ASSESSING VULNERABILITY BY JURISDICTION

Requirement §201.4(c)(2)(ii):	[The State risk assessment shall include an] overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in local risk assessments … . The State shall describe vulnerability in terms of the jurisdictions most threatened by the identified hazards, and most vulnerable to damage and loss associated with hazard events … .
Update: ***§201.4(d):***	**Plan must be reviewed and revised to reflect changes in development…**
Explanation:	The plan **shall** describe which jurisdictions are most threatened and vulnerable to hazards and the process used to identify them. Identification of these jurisdictions **shall** be based on an analysis of available local risk assessments conducted throughout the State, and where not available, on State risk assessments.
Plan Update:	The State **shall** describe any changes, clarifications, or refinements to the previous overview of the State's vulnerability resulting from any new or updated data, as well as information generated through local mitigation plans. The update **must** explain the process used to analyze information from the local risk assessments and adjust the statewide risk assessment, as necessary. Recognizing the differences in local risk assessments, information from local mitigation plans allows the State to better understand or describe its vulnerability in terms of the jurisdictions most threatened by natural hazards. However, the update should not attempt to include the details provided in every local mitigation plan. Recognizing that statewide vulnerability may not change much in any given three-year update cycle, this section provides an opportunity to anticipate future risk. The State **must** consider in its assessment, for jurisdictions in hazard prone areas, changes in development that may impact vulnerability such as: • Significant population increases and shifts in population to vulnerable areas; • A concentration or changes in land use or land use activities in vulnerable areas; and/or • Implementation of mitigation actions that have reduced vulnerability. Taking into account that some previously approved local plans included a general overview of land uses and development trends, it is up to the State to describe jurisdictions most threatened and vulnerable to damage and losses associated with hazard event based on such factors as:

- The review and incorporation of development trends provided in local mitigation plans; and,
- Statewide population growth estimates, projections, and land use data.

The State determines the level of detail provided in the updated plan but it must demonstrate that land uses, development trends, and population were assessed to obtain a statewide picture of changes to vulnerability. This information can be presented generally or specifically, using text, graphics, maps, or a combination of these methods.

In most cases, changes in population and anticipated development trends are tracked by one or more State agencies as well as Regional or Metropolitan Planning Organizations. Expected development patterns may also be described in other State plans, such as Operation Plans and Land Development Plans, or in functional plans, like transportation and economic development plans. These agencies, organizations, and plan documents can provide valuable information to indicate where growth is likely to occur in the future.

Resource:

For an explanation on ways to determine what areas are the most vulnerable to damage and loss, see:

- ✓ *Understanding Your Risks* (FEMA 386-2), Steps 3 and 4.
- ✓ *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7), Phase 2.
- ✓ *HAZUS MH* http://www.fema.gov/plan/prevent/hazus/

Examples:

N/S

Original Submittal:

[For illustrative purposes, only the flood hazard vulnerability is included in this example.]

Flood Hazard Vulnerability

As development has increased in and along floodplains, urban and suburban areas of the State have been increasingly impacted by flash flooding and flooding along streams and rivers. Across the State, an estimated 1.5 million people live within areas designated as 100-year floodplains.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS

§201.4(c)(2)(ii)		▪ The plan did not differentiate areas of the State that have greater vulnerability to flooding than others.

Required Revisions:

For a "Satisfactory" score, the plan must detail the factors determining vulnerability to the State. While not required by the Rule, the plan should provide information at the local/County level to the extent possible, allowing the State to contrast areas of higher and lower vulnerability.

Revised Submittal:

Flood Hazard Vulnerability

~~As development has increased in and along floodplains, urban and suburban areas of the State have been increasingly impacted by flash flooding and flooding along streams and rivers. Across the State, an estimated 1.5 million people live within areas designated as 100-year floodplains.~~

The State Department of the Environment used GIS technology to overlay aerial photographs with the 100-year floodplain. The Department determined that some Counties have a higher percentage of structures located within the 100-year floodplain, and therefore have a higher vulnerability to the flooding hazard than other Counties. In addition, using FIRMs, FISs, and topographic mapping, the Department identified areas where steep slopes could increase flood velocity. By reviewing the flood hazard assessments provided in local mitigation plans (including FMA and CRS plans), the HMC identified exacerbating circumstances that may lead to greater flood vulnerability, including stormwater management issues and a high percentage of impervious surfaces in or near the floodplain. A detailed analysis of the flood hazard and related map are provided for each County of the State in Appendix XX. The following table summarizes flood attributes by County.

Table XX: Flood Vulnerability by County

County	% of Structures in Floodplain	Steep Slopes/High Velocity Water	Stormwater Management Issues[1]	Impervious Surfaces[2]	Estimated No. of People Affected	Assessed Relative Vulnerability	No. of Critical Facilities Affected
Allwater	50%	●			12,000	H	4
Bedlam	4%	●			1,000	L	1
Calm-before-the-Storm	10%	●			3,000	M	3
Turmoil	1%		●	15%	2,000	M	1

[1]**Stormwater Management Issues** encompass assessments by local governments, such as debris in stormwater collectors, culvert sizes, etc. that lead to increased localized flooding during heavy rains.

[2]**Impervious Surfaces** describe the percentage of acres of paved surfaces in or near floodplains.

ASSESSING VULNERABILITY OF STATE FACILITIES

Requirement §201.4(c)(2)(ii):	[The State risk assessment shall include an overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in] the State risk assessment. … State owned critical or operated facilities located in the identified hazard areas shall also be addressed … .

Explanation: The plan **shall** describe the State-owned or operated buildings, infrastructure, and critical facilities located in areas subject to hazards described previously. The description *should* include the uses, approximate sizes, types, and values of buildings, infrastructure, and critical facilities.

Plan Update: The State **shall** update the overview and analysis of vulnerable State owned or operated buildings, critical facilities, and infrastructure, based on available data. The update *should* reflect acquisition or development of new properties and infrastructure.

Resource: For an explanation on ways to determine what areas are at risk and vulnerable, see:

- ✓ *Understanding Your Risks* (FEMA 386-2), Steps 3 and 4.
- ✓ *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7), Phase 2.
- ✓ *HAZUS MH* http://www.fema.gov/plan/prevent/hazus/

Examples:

N/S

Original Submittal:

Vulnerable State Facilities

Using FIRMs, the Hazard Mitigation Committee (HMC) ascertained that three State facilities are located in the floodplain.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(2)(ii)		▪ The plan does not provide an analysis of the vulnerability of these facilities in the floodplain.

Required Revisions:

For a "Satisfactory" score, the plan must document the process by which the State developed its vulnerability assessment for State facilities and also provide enough detail of the findings to make the relative vulnerability of the structures evident. While not required by the Rule, the analysis should include an assessment of the facilities' first floor elevations in relation to the base flood elevation, an indication of the value of the buildings and contents, and a description of the buildings' functions and how the buildings' functions would be compromised if flooded.

N S

Revised Submittal:

~~Vulnerable~~ Vulnerability of State Facilities to Flooding

~~Using FIRMs, the Hazard Mitigation Committee (HMC) ascertained that three State facilities are located in the floodplain.~~

At the request of the Hazard Mitigation Committee (HMC), surveyors and engineers from the State Department of the Environment and the Department of Public Works conducted site assessments of all State facilities located within the 100-year floodplain to determine their vulnerability to flooding. First floor elevations, construction types, square footages, content types, and approximate value of the structures and contents were documented for each facility. The table below summarizes these findings, including the location, function, approximate value of the structure and its contents, and the number of feet above or below base flood elevation. Approximate values of structure and contents were estimated using the judgment of the facilities managers of the respective structures and following the guidelines detailed in the FEMA document, *Understanding Your Risks: Identifying Hazards and Estimating Losses,* Step 4. A detailed list of these findings can be found in Appendix XX.

Table XX: State Facilities in the 100-Year Floodplain

County	Function	No. of Affected State Employees	Approx. Value of Structure	Approx. Value of Contents	First Floor Elevation Above (+) or Below (-) BFE	Critical Facility
Allwater	Offices	250	$1M	$1M	+5	●
Bedlam	State Emergency Operations Center	50	$1M	$1.5M	+3	●
Calm-before-the-Storm	Warehouse/Garage for Snow Removal Equipment	15	$1M	$1.5M	-2	●

ESTIMATING POTENTIAL LOSSES BY JURISDICTION

Requirement §201.4(c)(2)(iii):	[The State risk assessment shall include an] overview and analysis of potential losses to identified vulnerable structures, based on estimates provided in local risk assessments … .
Update: §201.4(d):	Plan must be reviewed and revised to reflect changes in development…

Explanation: This requires States to incorporate the findings of local jurisdiction loss estimates in the State plan. The plan **shall** describe the distribution of losses across the State and *should* include specific reference to quantifying losses to local critical facilities.

Plan Update:

The State **shall** incorporate any changes, clarifications, or refinements, obtained from State-wide or local loss estimates. Recognizing the differences in local risk assessments, information from local mitigation plans allows the State to better understand or describe its vulnerability in terms of the potential losses. However, the update should not attempt to include the details provided in every local mitigation plan.

Comparable to the estimating vulnerability by jurisdiction, the state **must** consider changes in development that may affect the statewide loss estimates.

Special Considerations: Although the Rule requires that States only analyze losses to structures, States are highly encouraged to analyze the potential economic and human impact each hazard would have statewide.

Resource: For more information on assessing vulnerability/estimating losses, see:

- ✓ *Understanding Your Risks* (FEMA 386-2), Step 4.
- ✓ *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7), Phase 2.
- ✓ *HAZUS MH* http://www.fema.gov/plan/prevent/hazus/. FEMA has developed the HAZUS-MH Risk Assessment Tool (RAT) to help produce risk assessment outputs for earthquakes, floods, and hurricanes. The summaries can support the presentation of data to decision-makers and other stakeholders and can be used in the risk assessment section of the mitigation plan.

Examples:

N/S

Original Submittal:

[*For illustrative purposes, only the flood hazard is discussed.*]

Flood Vulnerability

Across the State, an estimated 150,000 people and 40,000 structures are located within the boundaries of the 100-year floodplain, putting at risk the State's revenue of $1 billion.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(2)(iii)		▪ The plan does not describe the State's potential losses. ▪ The plan does not explain how the State developed the loss figures.

Required Revisions:

To receive a "Satisfactory" score, the plan must provide an overview and analysis of losses to local jurisdictions. While not required by the Rule, the plan should also document how it developed its loss estimations and include information to assess relative losses across the State.

N S

Revised Submittal:

~~Flood Vulnerability~~ Potential Flood Losses by Jurisdiction

Across the State, an estimated 150,000 people and 40,000 structures are located within the boundaries of the 100-year floodplain, putting at risk the State's revenue of $1 billion.

The table below represents the estimated losses to residential, commercial, and critical facilities and buildings by County. The estimates were taken from local hazard mitigation plans and are added to provide an estimated total State loss for each category. Except for Allwater County, which has not updated its plan, each county determined losses using the procedures explained in the FEMA document, *Understanding Your Risks: Identifying Hazards and Estimating Losses*. The process used by the Hazard Mitigation Committee (HMC) for determining Allwater County's potential losses is explained in the table's footnote.

County	Estimated Residential Losses (in Millions)	Estimated Commercial Losses (in Millions)	Estimated Losses to Critical Facilities (in Millions)	Relative Losses (in Millions)
Allwater*	$75.0	$2.4	$2.0	H
Bedlam	$ 0.3	$0.1	$0.1	L
Calm-before-the-Storm	$ 6.5	$ 3.0	$1.0	H
Turmoil	$2.2	$1.5	$0.5	M
Total Losses to State	$84.0	$ 7.0	$3.6	94.6

* Because Allwater County has not yet submitted a plan that estimates losses to residential, commercial, and critical facilities, all figures for this County were estimated by multiplying the percentage of structures in the floodplain (50% of all structures) with County economic data included in State demographic and tax information.

Estimated Residential Losses = 50% x No. of residences x median housing value.

Estimated Commercial Losses = 50% x No. of businesses x median building value x median business revenue.

Estimated Critical Facilities = 50% x No. of police and fire stations, hospitals, schools x median estimated losses to critical facilities of all other counties.

This method is not an accurate measure of vulnerability because depth of flooding for each structure in the floodplain was not assessed.

ESTIMATING POTENTIAL LOSSES OF STATE FACILITIES

Requirement §201.4(c)(2)(iii):	[The State risk assessment shall include an overview and analysis of potential losses to identified vulnerable structures, based on estimates provided in] the State risk assessment. The State shall estimate the potential dollar losses to State-owned or operated buildings, infrastructure, and critical facilities located in the identified hazard areas.

Explanation: This requires States to estimate losses to State-owned or operated facilities and infrastructure. The plan **shall** describe the distribution of losses across the State, with specific reference to quantifying losses to critical facilities.

States *should* also describe their approach for determining losses for State-owned infrastructure and buildings.

Plan Update: If there are changes to the hazard profile and/or to the State facilities and infrastructure as described under Assessing Vulnerability of State Facilities, this section **must** be updated to reflect potential losses to identified vulnerable structures and infrastructure. If the approach for determining these losses has changed since the first approval, the plan *should* describe the new methodology.

Resource: For more information on assessing vulnerability/estimating losses, see:

- ✓ *Understanding Your Risks* (FEMA 386-2), Step 4.
- ✓ *Integrating Manmade Hazards into Mitigation Planning (FEMA 386-7),* Phase 2.
- ✓ *HAZUS MH* http://www.fema.gov/plan/prevent/hazus/. FEMA has developed the HAZUS-MH Risk Assessment Tool (RAT) to help produce risk assessment outputs for earthquakes, floods, and hurricanes. The summaries can support the presentation of data to decision-makers and other stakeholders and can be used in the risk assessment section of the mitigation plan.

Examples:

Original Submittal:

Vulnerability of State Facilities to Flood

Using FIRMs, the Hazard Mitigation Committee (HMC) ascertained that three State facilities are located in the floodplain.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(2)(iii)		▪ The plan does not discuss the actual vulnerability and potential losses to the facilities in the floodplains.

Required Revisions:

The plan must make clear the potential losses to State facilities and infrastructure. These losses should be estimated as a function of the vulnerability to the hazard (here, flood depth), with potential losses calculated based on the estimated value of the structure.

Revised Submittal:

~~Vulnerability of State Facilities to Flood~~ **Potential Flood Losses to State Facilities**

~~Using FIRMs, the (Hazard Mitigation Committee) (HMC) ascertained that three State facilities are located in the floodplain.~~

Using the procedure detailed in the FEMA document, *Understanding Your Risks*, to determine the estimated percentage loss to structure and contents, the HMC determined that the warehouse/garage housing snow removal supplies and equipment was the only critical facility in the floodplain that would suffer damages in a 100-year flood event. The facility would suffer approximately $422,500 in losses to the structure and its contents.

Location of State Facility	Function	No. of Critical Facility	Approx. Value of Structure	Approx. Value of Contents	First Floor Elevation Above (+) or Below (-) BFE*	Estimated % Loss to Structure	Estimated % Loss to Contents	Estimated Structure Losses	Estimated Content Losses	Relative Losses
Allwater	Offices		$1M	$1M	+5	0%	0%	$0	$0	L
Bedlam	State Emergency Operations Ctr.	1	$1M	$1M	+3	0%	0%	$0	$0	L
Calm-before-the-Storm	Warehouse/ Garage for Snow Removal Equip-ment	1	$1M	$1.5 M	-2	13%	19.5%	$130K	$292.5K	H
Total Losses to State Critical Facilities								$130K	$292.5K	

*BFE: Based Flood Elevation

MITIGATION STRATEGY

According to §201.4(c)(3) the plan must include a mitigation strategy that provides the State's blueprint for reducing the losses identified in the risk assessment. The strategy shall include goals that are based on the risk assessment and that should be consistent with goals from other State and local jurisdictions' plans and policies. While not required by the Rule, objectives could also be included to define strategies or steps to achieve the identified goals. These goals and objectives will guide the State's strategies and selection of actions to achieve the desired, long-term hazard protection. The State must also assess its own as well as its local jurisdictions' capabilities to staff programs or projects and fund actions to achieve the goals of the plan. The State must also identify funding from Federal, local, and private sources to complement its own resources.

Section 201.4(d) requires that plans be reviewed and revised to reflect progress in statewide mitigation efforts and changes in priorities. This is reflected in the guidance language under §201.4(c)(3)(i) and §201.4(c)(3)(iii). Fundamental to the mitigation strategy update is the demonstration that progress has been made to implement the mitigation strategy identified in the previously approved plan. The updated mitigation strategy provides an opportunity for the State to discuss efforts to ensure consistency between the goals and objectives of the State plan, and those of the local plans that have been approved.

This section includes the following five subsections:

- Hazard Mitigation Goals
- State Capability Assessment
- Local Capability Assessment
- Mitigation Actions
- Funding Sources

HAZARD MITIGATION GOALS

Requirement §201.4(c)(3)(i):	[The State mitigation strategy shall include a] description of State goals to guide the selection of activities to mitigate and reduce potential losses.
Update: §201.4(d):	**[The] plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts and changes in priorities…**

Explanation:

The State's goals as written in the plan reflect the State's vision for long-term hazard mitigation and loss reduction. This section *should* describe how the plan's goals were developed.

These goals, along with their corresponding objectives, guide the development and implementation of mitigation actions. Although the Rule does not require a description of objectives, States are highly encouraged to include a description of the objectives developed to achieve the goals so that reviewers understand the connection between goals, objectives, and actions.

The goals and objectives *should*:

- Be based on the findings of the local and State risk assessments.
- Represent a long-term vision for hazard reduction or enhancement of mitigation capabilities.

Plan Update:

The plan update provides an opportunity for the State to reconsider the goals and objectives adopted in the previously approved plan to guide the selection of activities to mitigate and reduce potential losses. Goals may be reaffirmed or updated based on more current information, including updated or new risk assessments or changes in State mitigation priorities. It is not necessary to change previous goals if they remain valid but the plan **must** demonstrate that State goals were assessed and that they still remain valid.

If the previously approved plan included objectives, the updated plan *should* point out which objectives have been met and identify new objectives.

Resources:

For more information on identifying and refining the State's mitigation goals and objectives, see:

✓ *Developing the Mitigation Plan (FEMA 386-3)*, Step 1.

Special Considerations:	**Goals** are general guidelines that explain what you want to achieve. They are usually long-term and represent global visions such as "eliminate flood damage." **Objectives** define strategies or implementation steps to attain the identified goals. Unlike goals, objectives are specific, measurable, and may have a defined completion date. Objectives are more specific, such as "upgrade State building code to meet the provisions of the National Earthquake Hazards Reduction Program." (From *Developing the Mitigation Plan (FEMA 386-3)*, Step 1.)

Examples:

N/S

Original Submittal:

The Hazard Mitigation Committee (HMC) identified the following goals for the plan:

Goal 1: Document the hazards and vulnerabilities in the State.

Goal 2: Identify priority mitigation projects to fund.

Goal 3: Raise awareness of hazards and mitigation actions in the State.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(3)(i)		▪ Goals 1 and 2 are what is to be accomplished by the planning process. ▪ No explanation is provided for how the goals were developed.

Required Revisions:

To receive a "Satisfactory" score, the plan must tie the goals to the risk assessment findings.

N S

Revised Submittal:

~~The Hazard Mitigation Committee (HMC) identified the following goals for the plan:~~

~~Goal 1: Document the hazards and vulnerabilities in the State.~~

~~Goal 2: Identify priority mitigation projects to fund.~~

~~Goal 3: Raise awareness of hazards and mitigation actions in the State.~~

The Hazard Mitigation Committee (HMC) participated in a 2-day workshop to review the risk assessment findings and develop the mitigation goals and objectives for the Hazard Mitigation Plan. The

risk assessment identified the following problems:

- **Local communities in the State were unaware of the types of assistance available to them for hazard mitigation planning.**
- **The State Division of Emergency Management often did not coordinate with local communities or other State agencies in hazard mitigation planning.**
- **Many State residents did not realize hazard mitigation planning was occurring in their area.**
- **The State would benefit from incorporating GIS and other technical information into their hazard mitigation planning process.**
- **The State has one of the highest numbers of repetitive loss properties in the country.**

At the end of this session, the HMC identified the following goals, objectives, and actions for the State of Emergency's mitigation strategy to address these issues.

Goal 1: Strengthen the Division of Emergency Management's capability and its coordination with other State agencies to reduce hazard vulnerabilities throughout the State.

Goal 2: Increase technical assistance to and coordination with local jurisdictions to build local capacity to further reduce vulnerabilities at the local level.

Goal 3: Build public awareness of proven, cost-effective mitigation actions.

Goal 4: Formulate strategies using state-of-the-art knowledge to reduce vulnerabilities for identified hazards.

Goal 5: Reduce the number of repetitive loss structures by 50%.

(For the purposes of this example, the following description applies to all hazards. For illustrative purposes, only one goal will be described in more detail.)

Goal 2: Increase technical assistance to and coordination with local jurisdictions to build local capacity to further reduce vulnerabilities at the local level.

Objectives 2.1: The State will work with local communities to improve their hazard mitigation planning process.

Short Term Action 2.2.1:

Note: "short term" is defined as those actions which agencies are capable of implementing within their existing resources and authorities in the current fiscal cycle.

Improve hazard mitigation technical assistance for local governments.

Lead Agency: State Office of Emergency Management

Support Agency: State Department of the Environment

Timeline: 1 year

Resources: 1 Full Time Employee

Long Term Action 2.2.2:

Note: "long term" is defined as those actions which will require new or additional resources or authorities to implement, and those actions which cannot occur during the current fiscal cycle.

The State will develop and distribute local hazard mitigation planning guidance.

Lead Agency: State Office of Planning

Support Agency: State Office of Emergency Management

Timeline: 3 years

Resources: 2 Full Time Employees

STATE CAPABILITY ASSESSMENT

Requirement §201.4(c)(3)(ii):	[The State mitigation strategy shall include a] discussion of the State's pre-and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: ▪ an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas [and] ▪ a discussion of State funding capabilities for hazard mitigation projects … .
Explanation:	The State **shall** include a discussion of its financial, legal, and programmatic ability to carry out mitigation actions in the pre-and post-disaster setting to achieve its mitigation objectives and, ultimately, its goals. The mitigation strategy *should* not only address the ways the State's existing capabilities can aid the mitigation effort, but also address areas in which the State needs to strengthen its capabilities. Without an assessment of the State's capability, implementation of the plan could stall from inadequate resources. The State **shall** conduct an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas. The State *should* discuss existing and emerging State policies and programs for both pre- and post-disaster mitigation. The discussions *should* include: implementation opportunities and problems (e.g., financial/staffing resources, lack of informed public, non-mandated improvements, etc.), opportunities for improving State capabilities, conflicts created by public investment policies (e.g., policies that have promoted public investment in hazard-prone areas), and problems created by private development projects in hazard-prone areas. The State *should* highlight implementation tools, policies, and programs that have proven to be effective in achieving mitigation objectives (e.g., planning legislation requiring integration of mitigation actions in comprehensive plans). The State *should* also identify those laws, regulations, and policies that can be amended to integrate mitigation actions or to remove provisions that hinder mitigation efforts. The State **shall** describe its assessment of its funding capabilities for hazard mitigation projects. The discussion *should* include positive aspects, as well as problems encountered, and identify areas where the State needs to seek outside funding sources.
Plan Update:	The plan update provides an opportunity for the State to re-evaluate its pre- and post-disaster hazard management policies, programs, and capabilities. The plan update **must** address any hazard management capabilities of the State that have changed since approval of the previous plan. The State **shall** also provide an updated assessment of its funding capabilities for hazard mitigation projects.

In the previously approved plan, the State may have identified laws, regulations and policies that could be amended to integrate mitigation actions or to remove provisions that hinder mitigation efforts. Where applicable, the updated plan *should* describe progress in modifying these policies and legislation or identify where opportunities for integration still remain.

Resource: For tips for assessing mitigation capabilities, see:

✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 2.

Examples:

N/S

Original Submittal:

The State Mitigation Plan has identified those pre- and post-disaster State regulations, policies, and programs related to hazard mitigation.

For example, a major hazard the State faces is flooding. The State has taken steps to become more proactive in its approach to flood hazard mitigation planning. The Emergency Management Agency has instituted the Comprehensive Flood Management Grant Program and Repetitive Loss Project, while the State Department of the Environment has instituted the Technical Assistance Program. These programs are geared towards providing mitigation planning assistance to communities in the State.

The State has many funding programs in place which are available to municipalities that need assistance. These funds are primarily from various Federal grant programs.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(3)(ii)		▪ The plan does not evaluate the laws, regulations, policies, and programs. ▪ The discussion on funding is too general and incomplete to address the requirement. ▪ The plan did not indicate how State programs were identified or how they were beneficial. ▪ There are no regulatory reviews or regulations indicated that might be improved for mitigation purposes. ▪ The plan does not discuss programs or policies the State can use to improve capabilities.

Required Revisions:

To receive a "Satisfactory" score, the plan must evaluate the State's capability to reduce losses and discuss in more detail the State's funding resources. While not required by the Rule, the plan should include what effort was made to identify programs and policies under consideration, including executive orders or new legislation needed to implement the plan recommendations.

N S

Revised Submittal:

The State Mitigation Plan has identified those pre- and post-disaster State regulations, policies, and programs related to hazard mitigation. **As a result of this, the State Hazard Mitigation Committee (HMC) held several meetings with various State Agencies. Those programs selected as most beneficial are described as follows.**

~~For example, a major hazard the State faces is flooding. The State has taken steps to become more proactive in its approach to flood hazard mitigation planning. The Emergency Management Agency has instituted the Comprehensive Flood Management Grant Program and Repetitive Loss Project, while our State Department of the Environment has instituted the Technical Assistance Program. These programs are geared towards providing mitigation planning assistance to communities in the State.~~

The State Emergency Management Agency identified the Comprehensive Flood Management Grant Program and Repetitive Loss Projects as the most beneficial programs. The Comprehensive Flood Management Grant Program has allowed the State to assist communities in all aspects of floodplain management, including the development of local floodplain plans, the provision of funding for various flood control and watershed studies, and the acquisition of flood-prone properties. The Repetitive Loss Project uses GIS software to map repetitive loss structures and areas in an effort to determine which types of mitigation actions are most appropriate.

The State Department of the Environment indicated that the Technical Assistance Program has been very beneficial. The Technical Assistance Program provides help to communities on a variety of topics and acts as a clearinghouse for information on mitigation planning, including such things as providing guidance on the planning process and funding sources available to communities.

The State has many funding programs in place which are available to municipalities that need assistance. These funds are primarily from various Federal grant programs. **Currently, the State uses HMGP, FMA, and Community Development Block Grants (CDBG) funds to promote mitigation activities. The State supplements these sources with funding from its State Office for Mitigation Funding and partnerships with the private sector (see Table XX for a list of projects funded by these programs).**

The State Legislature recently passed the State Resource Protection and Hazard Mitigation Planning Act. This act gives the State the authority to make certain that State government activities are consistent with the policies of the State Mitigation Plan. Although this is a new act and agencies are just beginning to implement it, it is expected to have a significant positive impact on hazard mitigation planning within the State (see Section XX, Goals, for more details on the expected results of this act).

LOCAL CAPABILITY ASSESSMENT

Requirement §201.4(c)(3)(ii):	[The State mitigation strategy shall include] a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

Explanation:

The plan **shall** include a general description of local mitigation policies, programs, and capabilities. The State **shall** also describe how local pre- and post-disaster mitigation policies, programs, and capabilities, such as building codes, zoning, or land use policies, were evaluated to determine their effectiveness. This *should* include existing and emerging capabilities. The description can be kept general and does not need to be detailed for all localities.

The State *should* include in its description the following: implementation opportunities and problems (e.g., financial /staffing resources, lack of informed public, non-mandated improvements, etc.), opportunities for building local capabilities, and problems created by public investment policies (e.g., policies that may have inadvertently promoted public investments in hazard-prone areas). The State *should* highlight local implementation tools, policies, and programs that have proven to be effective in achieving mitigation objectives (e.g., adoption of planning legislation requiring integration of mitigation actions in comprehensive plans).

Plan Update:

The updated plan **shall** include an updated general description and analysis of the effectiveness of current local mitigation policies, programs, and capabilities.

Resource:

For tips on how to assess mitigation capabilities, see:

- ✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 2.

Examples:

N/S

Original Submittal:

The State has a history of being a strong property rights State. Therefore, local governments have taken a longer time implementing some hazard mitigation actions. The State, however, has provided guidance to the local communities.

The mitigation actions most local governments already have in place are zoning regulations and building codes. Many local governments are currently working on adopting the most recent International Building Code (IBC) and rewriting their zoning regulations so they have more “teeth” to them to allow enforcement of the regulations.

New approaches that local governments are working on, with help from the State, are restrictive zoning, capital improvements planning, land use planning, and subdivision regulations. It is believed that local hazard mitigation will be more effective once these actions are implemented.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(3)(ii)		▪ The State did not identify why the policies mentioned are believed to be beneficial to hazard mitigation. ▪ The State did not mention how they are helping the local communities to adopt the recommended policies.

Required Revisions:

To receive a "Satisfactory" score, the plan must include what effort was made to assess the effectiveness of programs and policies under consideration.

N S

Revised Submittal:

The State Hazard Mitigation Committee (HMC) has been actively working with its local governments to identify those actions most effective for hazard mitigation planning. The State has a history of being a strong property rights State. ~~Therefore, local governments have had a longer time implementing the hazard mitigation actions.~~ **but support is growing for policies that will help with hazard mitigation. Through working with local governments, the HMC has identified policies currently in place and their effectiveness with hazard mitigation. The HMC has also identified policies that local communities are interested in adopting and how they can benefit mitigation.** ~~The State, however, has provided guidance to the local communities.~~ **The State does provide guidance to the communities by providing model ordinances and example plans, and even has funds available to communities interested in adopting hazard mitigation actions.**

~~The mitigation actions most local governments already have in place are zoning regulations and building codes. Many local governments are currently working on adopting the most recent International Building Code (IBC) and rewriting their zoning regulations so they have more "teeth" to them to allow enforcement of the regulations.~~

~~New approaches that local governments are working on, with help from the State, are restrictive zoning, capital improvements planning, land use planning, and subdivision regulations.~~

The existing and planned future policies of local governments are indicated in the following table. ~~It is believed that local hazard mitigation will be more effective once these actions are implemented.~~ **It is expected that their implementation will make local mitigation more effective.**

Existing Local Policies			
Policy	***Description***	***Applicability***	***Effectiveness***
Building Codes	The State has adopted a building code and local governments are required to adopt and enforce this code.	The adoption and enforcement of building codes relates the design and construction of structures to standards established for withstanding high winds and flooding.	All structures built after 1999 comply with the new building code, which includes special provisions for building in the floodplain.
Zoning	Laws and ordinances regulate development by dividing the community into zones and by setting development criteria for each zone.	Zoning can keep inappropriate development out of hazard-prone areas and can designate certain areas for such things as conservation, public use, or agriculture. Zoning can also be used to control construction by dedicating areas for cluster development or planned unit development. The State is currently working with local governments on implementing these last two policies.	Eight out of 12 counties have passed open space ordinances that have preserved over 20% percent of hazard-prone and environmentally sensitive areas (wetlands, aquifer recharge zones, and hillsides) in the State. These ordinances are based on local land use plans.
Future Planned Local Policies			
Policy	***Description***	***Applicability***	***Effectiveness***
Land Use Planning	Comprehensive land use planning provides a mechanism to prevent development in hazardous areas or allows development in a manner that minimizes damage from hazards. Land use planning gives local governments “the big picture” of what is happening in their jurisdiction.	Local governments can use land use planning to identify those areas subject to damage from hazards and work to keep inappropriate development out of these areas. Land use planning can also be used for a more regional approach when local governments work together.	Under the new local planning legislation, new development can be minimized in identified hazard areas.
Subdivision Regulations	Sets construction and location standards for subdivision layout and infrastructure.	Contains standards for such things as stormwater management and erosion control.	New subdivisions in flood hazard areas will be required to cluster homes outside of the floodplain, and will be given more flexibility in using varied densities within the subdivision.
Capital Improvements Planning	Identifies where major public expenditures will be made over the next 5 to 10 years.	Capital Improvement Plans can secure hazard-prone areas for low risk uses, identify roads or utilities that need strengthening, replacement, or realignment, and can prescribe standards for the design and construction of new facilities.	Realigned utilities in highest earthquake risk area.

MITIGATION ACTIONS

Requirement §201.4(c)(3)(iii):	[The State plans shall include an] identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section should be linked to local plans, where specific local actions and projects are identified.
Update:	
§201.4(d):	**[The] plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts and changes in priorities….**

Explanation:

Based on the risk assessment portion of the plan, the State **shall** include in its statewide mitigation strategy actions it has identified through its planning process as well as those actions identified in Local Plans. The State *should* describe what agencies and interested parties were involved in identifying priorities, how actions were evaluated, and how such actions correspond to the plan's mitigation goals and objectives. Mitigation actions *should* be directly tied to goals and objectives and provide the means to achieve them. Actions can be:

- Statewide or property specific.
- Regulatory or programmatic.
- Targeted at government agencies or private industry.
- Construction activities or public outreach.

Plan Update:

The updated plan **must** identify the completed, deleted, or deferred actions or activities from the previously approved plan as a benchmark for progress. Further, the updated plan **shall** include in its evaluation and prioritization any new mitigation actions identified since the previous plan was approved or through the plan update process.

If the mitigation actions or activities remain unchanged from the previously approved plan, the updated plan **must** indicate why changes are not necessary.

The system identified under §201.4 (c)(5)(ii) and (iii), plan maintenance, will be useful in demonstrating progress in statewide mitigation efforts.

Resources:

For more information on evaluating mitigation actions, see:

- ✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 2.
- ✓ *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7), Phase 3.

Examples:

Original Submittal:

The State has compiled a list of mitigation projects, listed here by jurisdiction.

Mitigation Projects					
Statewide or County Specific	**Project Description**	**Hazard**	**Lead/Support Agency**	**Budget**	**Funding Source**
State Repetitive Loss Reduction Program	Comprehensive loss reduction program involving acquisition, elevation, relocation, and floodproofing of structures	Flooding	State Dept. of Emergency/ State Dept. of Public Works/Local Planning Agencies	$50 Million	PDM/ HMGP
Allwater County	Increase culvert size and retrofit bridge along State Highway 101	Flooding	Allwater Dept. of Highway and Safety/ State Dept. of Emergency	$6 Million	PDM (multiple grant application cycles)
Bedlam County	Conduct site visits to determine appropriate best practices for mitigating flooding of flood- prone historic structures	Flooding	Bedlam Dept. of Historic Preservation/ Bedlam Dept. of Env.	$35,000	Heritage Fund, Association for Historic Preservation, Bedlam Historic Society
State Coastal Zone Management Program	Review existing plans to determine effectiveness/ success of coastal erosion policies	Coastal Erosion	State Dept. of Env./State Dept. of Emergency	$150,000	Existing budget
State Earth-quake Hazard Reduction Program	Update the State Building code to the recommended provisions of the National Earthquake Hazards Reduction Program and promote local adoption	Earth-quakes	State Dept. of Planning/ State Dept. of Emergency/ Local Planning Depts.	$100,000	Existing Budget

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(3)(iii)		▪ The plan does not describe how these projects were evaluated and selected. ▪ There is no indication as to the priority for implementing these projects.

Required Revisions:

To receive a "Satisfactory" score, the plan must describe the approach used to evaluate and prioritize mitigation actions.

N S

Revised Submittal:

~~The State has compiled a list of mitigation projects, listed here by jurisdiction.~~ **The Hazard Mitigation Committee (HMC) hired a consultant to assist the HMC to evaluate potential projects and prepare a capital improvement plan for mitigation actions to be carried out over the next 10 years. The consultant met with the HMC to review projects identified in local plans and by the HMC. The consultant gathered relevant structure information (e.g., replacement value, square footage, percent of damage to structure likely, etc.) and relevant hazard information (e.g., probability of occurrence, magnitude of the event at the project site, etc.) and then analyzed the costs and benefits for each project to generate a cost-benefit estimate. The summary of results is included in the plan as Appendix XX. Each project was then judged against these three criteria: cost-benefit ratios greater than 1 (all projects receiving a cost-benefit ratio less than 1 were not considered for Federal funding), social benefits (or least negative impacts) to the communities, and environmental benefits (or least negative impacts) to the communities. The table below summarizes the HMC's findings. In cases where the probabilities, costs, or benefits were difficult to calculate due to lack of data, the HMC considered the amount of damage from past occurrences or the geographical extent of the hazard area, to assign a rank.**

Projects that had additional considerations, such as historic, environmental, or social value, while not meeting the economic criteria, have been included and indicated in the Capital Improvement Plan (CIP) with an asterisk. Funding for such projects will be pursued from private sources and State and local funds allocated whenever possible.

The State is focusing its mitigation efforts on reducing flood-related losses as a result of flooding hazards causing the highest losses of all the natural hazards in the state. One of its innovative programs is the comprehensive Repetitive Loss Reduction Program. The goal of this program is to reduce repetitive loss

properties by 50% within 10 years. The state has the highest number of repetitive loss properties in the country. While the focus of mitigation efforts is flooding, the State will continue to support other hazard mitigation activities such as those under the Earthquake Hazard Reduction Program.

Mitigation Projects									
Statewide or County Specific	**Project Description**	**Hazard**	**Lead/Support Agency**	**Budget**	**Funding Source**	**BC Review**	**Negative Social Impact**	**Negative Environ-mental Impact**	**Rank**
State Repetitive Loss Reduction Program	Comprehensive loss reduction program involving acquisition, elevation, relocation, and floodproofing of structures	Flooding	State Dept. of Emergency/ State Dept. of Public Works/Local Planning Agencies	$50 Million	PDM/ HMGP	**+**	**L**	**L**	**H**
Allwater County	Increase culvert size and retrofit bridge along State Highway 101	Flooding	Allwater Dept. of Highway and Safety/ State Dept. of Emergency	$6 Million	PDM (multiple grant application cycles)	**+**	**L**	**M**	**H**
Bedlam County	Conduct site visits to determine appropriate best practices for mitigating flooding of flood-prone historic structures	Flooding	Bedlam Dept. of Historic Preservation/ Bedlam Dept. of Env.	$35,000	Heritage Fund, Association for Historic Preservation, Bedlam Historic Society	**N/A**	**L**	**L**	**M**
State Coastal Zone Manage-ment Pro-gram	Review existing plans to determine effectiveness/ success of coastal erosion policies	Coastal Erosion	State Dept. of Env./State Dept. of Emergency	$150,000	Existing budget	**N/A**	**L**	**L**	**M**
State Earth-quake Hazard Reduction Pro-gram	Update the State Building code to the recommended provisions of the National Earthquake Hazards Reduction Program and promote local adoption	Earth-quakes	State Dept. of Planning/ State Dept. of Emergency/ Local Planning Depts.	$100,000	Existing Budget	**N/A**	**L**	**L**	**L**

FUNDING SOURCES

Requirement §201.4(c)(3)(iv):	[The State mitigation strategy shall include an] identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.

Explanation:

The plan **shall** describe the current funding sources as well as potential sources that will be pursued to fund proposed mitigation projects and actions. It *should* also identify where funding is required to implement a project/activity identified in the mitigation strategy. Funding alternatives **shall** include Federal, State, local, and private sources.

The description can also include novel or alternative ways to fund actions, such as:

- Combining funding from various programs to implement a mitigation project.
- Integrating mitigation actions in implementing agencies' work plans.
- Identifying mitigation opportunities that may arise during scheduled infrastructure improvements, maintenance, or replacement, or other capital improvements.
- Building partnerships with businesses and non-profits whose properties, employees, or clients may be affected by hazards.
- Combining funding from various Federal programs to fund a comprehensive plan with a mitigation component.

Plan Update:

The updated plan **must** describe current and potential sources of funding to implement mitigation activities. The updated plan *should* associate current and potential funding with identified mitigation actions in the mitigation strategy, not just a general statement of funding.

The updated plan **must** identify the sources of mitigation funding used since approval of the previous plan to implement activities in the mitigation strategy.

Resource:

For more information on funding mitigation actions, see:

- ✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 3.
- ✓ *Bringing the Plan to Life* (FEMA 386-4), Step 2.

Examples:

Original Submittal:

The State currently uses several funding sources to implement its hazard mitigation actions. Funding sources include: FEMA's Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA), HUD's Community Development Block Grant (CDBG) via the State's Economic and Community Development Administration, and Small Business Administration (SBA) loans. These funds are used to implement a broad range of hazard mitigation actions. The State is also planning to pursue additional funding sources.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(3)(iv)		▪ The plan did not provide details about the funding sources and how they are used, including current funding levels, eligible types of actions, and current/past projects. ▪ The plan did not mention which future funding sources will be pursued. ▪ The plan did not mention State, local, or private funding sources.

Required Revisions:

To receive a "Satisfactory" score, the plan must include a description of State and private sector partnerships in place or describe the strategy for pursuing the private sector to take a more active role in implementing mitigation actions.

Revised Submittal:

The State currently uses several funding sources to implement its hazard mitigation actions. ~~Funding sources include: FEMA's Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA), HUD's Community Development Block Grant (CDBG) via the State's Economic and Community Development Administration, and Small Business Administration (SBA) loans. These funds are used to implement a broad range of hazard mitigation actions. The State is also going to pursue additional funding sources.~~ **These funds primarily come from Federal and State sources, and the State is interested in pursuing additional private sources. These sources are listed in the following table.**

Funding Source	Description	Estimated Annual Funding
HMGP *Hazard Mitigation Grant Program*	Provides post-disaster funds to communities to help implement long-term hazard mitigation strategies.	$15M (from three past Presidential disaster declarations)
FMA *Flood Mitigation Assistance Program*	Provides pre-disaster funds. There are three types of grants: planning grants, project grants, and technical assistance grants. Requires a 25% non-Federal match and is based on the total number of NFIP policies in the State.	$500,000
CDBG *Community Development Block Grant*	Although this funding comes from HUD, it is made available to communities through the State Economic and Community Development Administration. The grants are used to expand affordable housing and economic opportunities, and to revitalize communities by improving community facilities and services.	$2M
SBA *Small Business Administration*	Post-disaster low interest, long-term loans given to homeowners, renters, businesses, or private non-profit organizations. Up to 20% of the loan amount can be used for hazard mitigation actions.	$500,000 (based on past disasters)
SOF *State Office for Mitigation Funding*	This newly created State Office was authorized by a recent act of the State Legislature. This Office will make funds available to local communities for hazard mitigation planning through an increase in the State's gasoline tax.	$5M
Manufactured Homebuilders Association	The State is interested in forming an agreement with this association to develop an earthquake-resistant homes campaign.	In-kind services
National Association of Homebuilders	The State is pursuing a relationship with this association and is discussing how the association can assist the State in promoting construction of safe rooms.	In-kind services

COORDINATION OF LOCAL MITIGATION PLANNING

§201.4(c)(4) requires that Standard State Mitigation Plans describe the process by which they provide funding and technical assistance for the development of Local Plans. This section also requires a description of the State's processes for incorporating local planning efforts into the statewide plan and prioritizing assistance to local jurisdictions.

When the State plans were originally prepared, there were few local plans that met FEMA's planning requirements under §201.6. Therefore, States had limited local information on which to base their plans. Since then, many local plans have been approved and adopted, providing States with the opportunity to better coordinate with local jurisdictions.

Section 201.4(d) requires that the State plan be updated regularly to address changes in development and mitigation priorities. This is reflected in the guidance language under §201.4(c)(4)(ii) and §201.4(c)(4)(iii).

This section includes the following three subsections:

- Local Funding and Technical Assistance
- Local Plan Integration
- Prioritizing Local Assistance

LOCAL FUNDING AND TECHNICAL ASSISTANCE

Requirement §201.4(c)(4)(i):	[The section on the Coordination of Local Mitigation Planning must include a] description of the State process to support, through funding and technical assistance, the development of local mitigation plans.

Explanation:

With a new requirement for local mitigation plans in DMA 2000, many communities will require additional assistance, particularly small communities without adequate resources to develop a plan. Therefore, the State **must** describe the process it has developed or will develop to provide funding and technical assistance to local jurisdictions to prepare mitigation plans. Funding sources may be Federal, State, or private (see page 1-47 of the Mitigation Strategies section).

The description *should* include the departments or staff responsible for providing funds, plan development assistance, and technical assistance for developing risk assessments. This description could be included as part of the goals, objectives, and actions in the Mitigation Strategy section.

Plan Update:

The updated plan **must** describe:

- The funding and technical assistance the State has provided since approval of the previous plan to assist local jurisdictions in completing approvable mitigation plans; and
- How the State will continue to provide this funding and technical assistance for new plans as well as local plan updates.

Recognizing the limitations of some States' authorities, the update *should* discuss how technical assistance will be used to improve the effectiveness of local plans, particularly those of the more vulnerable jurisdictions. Examples include but are not limited to:

- Assistance to local jurisdictions to include in their mitigation strategies effective an feasible mitigation projects;
- Planning workshops/training;
- Planning grant application development;
- HAZUS technical assistance;
- Improved risk assessment or hazard data;
- Extensive plan review feedback.

If disasters have occurred, States *should* discuss what steps they have taken or will take to encourage affected local jurisdictions to complete or update their mitigation plans to reflect changes in vulnerability or revised State priorities.

Resource:

For information about writing a detailed mitigation strategy, see:

✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 3.

Examples:

Original Submittal:

Technical Assistance to Local Jurisdictions

The Hazard Mitigation Committee (HMC) provides technical assistance for plan development to local governments if requested by the jurisdiction.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(4)(i)		▪ The plan does not describe what funding support is available to local jurisdictions. ▪ The plan did not indicate how and what kind of technical assistance is provided to local governments. ▪ The plan did not indicate the staff or departments tasked with the responsibility of providing technical assistance or funding. ▪ Technical assistance should include an outreach component.

Required Revisions:

For a "Satisfactory" score, the plan must document the process followed to provide technical assistance and funding to local jurisdictions in the development of Local Plans.

Revised Submittal:

~~Technical Assistance to Local Jurisdictions~~ Plan Development Assistance

The Hazard Mitigation Committee (HMC) provides technical assistance **and funding to local jurisdictions that request such assistance** for plan development ~~to local governments if requested by the jurisdiction~~. **These resources are offered annually to local jurisdictions through a brochure indicating: 1) the types of technical assistance provided to jurisdictions (funding, planning process facilitation, risk assessment study, capability assessment study, hazard analysis, etc.); 2) the application procedure; and 3) the annual deadline for applications. Using the information presented on the submitted applications and the statewide risk assessment, the HMC prioritized jurisdictions for assistance based on 1) their vulnerability to hazards, 2) the lack of an updated hazard mitigation plan, 3) their access to geographic information systems and**

planning resources, and 4) the availability of local funds to conduct a planning process. The Plan Development Assistance Prioritization Matrix below summarizes this process.

Funds for planning assistance come from two Federal sources— the State's HMGP 7% planning assistance funds and the State's Pre-Disaster Mitigation Program funds — and one State source, the State Mitigation Action Fund. As a condition of having representation on the HMC, all member agencies have the responsibility to provide expertise to the local governments approved to receive assistance.

Plan Development Assistance Prioritization Matrix

County	Drought Risk	Flood Risk	Hurricane Risk	Wildfire Risk	Updated Plan?	County GIS Dept?	County Planning Dept.?	County Funds Available	Tech. Assistance Rank
Allwater	H	H	L	H					1
Bedlam	H	M	L	H	●		●		2
Calm-before-the-Storm	M	L	H	L	●	●	●	●	4
Turmoil	L	M	H	L	●		●		3

LOCAL PLAN INTEGRATION

Requirement §201.4(c)(4)(ii):	[The section on the Coordination of Local Mitigation Planning must include a] description of the State process and timeframe by which the local plans will be reviewed, coordinated, and linked to the State Mitigation Plan.
Update: §201.4(d):	**[The] plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities…**

Explanation:

The plan **must** include a description, as well as a timeline, of the State's approach for reviewing, coordinating, and integrating Local Plans into the statewide mitigation plan. An established process will streamline the review and approval of Local Plans, coordinate local and State planning efforts, and create a common knowledge base. While not required by the Rule, FEMA recommends listing the offices or departments responsible for these activities.

Plan Update:

The plan update process provides the opportunity for the State to assess how it reviews local plans and adjusts for any challenges or constraints to implementing its review process. The plan update **must** describe the process and timeframe by which the State reviews new and updated local plans for compliance with the Local Mitigation Plan requirements under 44 CFR Part 201.6.

The plan update **must** describe the process by which the State coordinates and links local plans to the State plan. The State plan update *should* identify areas where local jurisdictions utilized State plan information (e.g., risk assessment data) to complete their plans, or alternatively where local plan data were integrated into the State plan (e.g. local development trends). The State plan update *should* describe how the State reviewed local mitigation plans to ensure that State goals and objectives were supportive of local strategies. In this case, the State should coordinate with locals to ensure that identified mitigation goals are coordinated so that resulting hazard mitigation projects and actions result in similar ends.

Resource:

For more information about writing a detailed mitigation strategy, see:

- ✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 3.

Examples:

See page 1-22 for how local plan risk assessment findings, when available, were reviewed and integrated into the statewide plan.

See page 1-43 for how locally identified mitigation actions are integrated into the statewide plan.

PRIORITIZING LOCAL ASSISTANCE

Requirement §201.4(c)(4)(iii):	[The section on the Coordination of Local Mitigation Planning must include] criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs which should include: ▪ consideration for communities with the highest risks, ▪ repetitive loss properties, and ▪ most intense development pressures. Further that for non-planning grants, a principal criterion for prioritizing grants shall be the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated costs.
Update: §201.4(d):	**[The] plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities…**

Explanation:

The plan **shall** describe the criteria the State has developed for prioritizing local jurisdictions to receive planning and project grant assistance. Prioritization will assist the State in targeting the most at risk communities. The criteria for selecting communities *should* include those communities that are at highest risk, have repetitive loss properties, or are facing intense development pressure. The description can also include how assisting communities with their mitigation projects will achieve the plan's goals and objectives.

For project grants, States **shall** explain how they will use benefit-cost reviews to determine which projects maximize benefits relative to their costs. These projects would have the highest priority for available funding.

Plan Update:

The State **must** evaluate its approach to prioritizing local jurisdictions to receive planning and project grant assistance and provide a current description of its process. The plan *should* identify successes and challenges in its approach.

Resource:

For more information on writing a detailed implementation strategy, see:

✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 3.

For information about performing benefit-cost analyses, call:

✓ *FEMA's BCA Hotline at 866.222.3580 to order the Mitigation BCA Toolkit (July 2003) CD.*

Examples:

See page 1-22 for how the most vulnerable jurisdictions were identified, and page 1-43 for how mitigation actions were prioritized.

PLAN MAINTENANCE PROCESS

The plan maintenance process section requires that States implement a mechanism to keep the plan updated to reflect current conditions. §201.4(c)(5) requires States to have an established method and schedule for monitoring, evaluating, and updating the plan. This includes a review of goals, objectives, and actions the State is undertaking.

The Standard State Plan must be updated and resubmitted to FEMA for approval every three years, as required in §201.4(d). While the Rule does not require the plan to be updated after a disaster declaration, FEMA highly encourages States to review it and determine if the goals, objectives, and actions still meet the needs of the State. If deemed necessary, these should be reprioritized to reflect current conditions. It is especially important to update the plan if the disaster is the result of a new hazard or is not addressed in the plan. This post-disaster update can be an annex to the plan.

The updated plan assesses how the State's plan maintenance process worked and identifies whether any changes to the process are needed. Taking into consideration future updates, the State may find that adjustments to the method and schedule for maintaining the plan are necessary to ensure its value for comprehensive risk reduction.

Since the plan is an evolving document, the plan maintenance process identified in any State plan serves as the basis for the next update. The process of updating the plan provides the State the opportunity to document its progress in achieving its mitigation goals.

This section includes the following two subsections:

- Monitoring, Evaluating, and Updating the Plan
- Monitoring Progress of Mitigation Activities

MONITORING, EVALUATING, AND UPDATING THE PLAN

Requirement §201.4(c)(5)(i):	[The Standard State Plan Maintenance Process must include an] established method and schedule for monitoring, evaluating, and updating the plan.

Explanation:

The plan maintenance process provides a framework for gauging progress and adjusting to new conditions, such as new policies, Federal requirements, and new initiatives.

The State **must** describe how, when, and by whom the plan will be **monitored**. For example, its monitoring system may consist of the submittal of periodic reports by agencies involved in implementing projects or actions; site visits, phone calls, and meetings conducted by the person responsible for overseeing the plan; and the preparation of an annual report that captures the highlights of the previously mentioned activities.

The State plan **must** also include a description of how, when, and by whom it will be **evaluated**. The description *should* include the criteria used to evaluate the plan, such as whether:

- The goals and objectives still address current and expected conditions.
- The nature and magnitude of hazard problems and/or development have changed.
- The current resources are appropriate for implementing the plan.
- There are implementation problems, such as technical, political, legal, or coordination with other agencies.
- The outcomes of actions have been as expected.
- The agencies participated as originally proposed.

Ideally, the plan *should* be evaluated on an annual basis to determine the effectiveness of programs, policies, and projects, as well as to reflect changes in priorities and regulations.

The plan **must** describe how, when, and by whom it will be **updated**. FEMA recommends identifying the interested parties to be included in the process.

Plan Update:

In the previously approved plan, the State identified procedures to **monitor**, **evaluate**, and **update** its mitigation plan and track mitigation activities. The results of this evaluation and monitoring will assist the State in updating each section of the plan as part of the established update schedule. In particular, the plan maintenance section of the previously approved plan should assist in establishing the process for updating the plan.

The updated plan **must** include:

- An analysis of whether the previously approved plan's method and schedule for monitoring, evaluating, and updating the plan worked, and what elements or processes, if any, were changed; and
- The method and schedule to be used over the next three years to monitor, evaluate, and update the plan.

Resource: For information on the plan maintenance process, see:

✓ *Bringing the Plan to Life* (FEMA 386-4), Steps 2 - 4.

Examples:

N S

Original Submittal:

The State recognizes that the Hazard Mitigation Plan is not a static document and requires regular review and evaluation. The State will review the Plan annually to ensure that the plan is being properly implemented and is achieving the objectives set forth in the plan. If necessary, the Plan will be reviewed after a disaster declaration has been made in the State. FEMA will be notified of any changes the plan, or will be given a justification of why no changes were deemed necessary.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(5)(i)		▪ The plan does not present a schedule for monitoring, evaluating, and updating the plan, nor does it designate a responsible agency. ▪ The plan does not describe how the mitigation plan will be updated.

Required Revisions:

The plan must include a schedule or timeline for monitoring, evaluating, and updating the plan. This section must also include a description of how the plan will be updated. Include specific agencies responsible for the monitoring, evaluation, and update of the plan.

N S

Revised Submittal:

The State recognizes that the Hazard Mitigation Plan is not a static document and requires regular review and evaluation. The State will review the Plan annually to ensure that the plan is being properly implemented and is achieving the objectives set forth in the plan. If necessary, the Plan will be reviewed after a disaster declaration has been made in the State.

The State has formed a Hazard Mitigation Plan Evaluation Committee that will be responsible for reviewing and evaluating the

Mitigation Plan. This committee consists of representatives from State, County, and municipal government; regional planning councils; independent special districts; and non-profit organizations. This committee will meet once a year, in March, and all members will be asked to analyze the overall success and progress in implementing the Plan.

The committee will review each goal and objective to determine their appropriateness with respect to changing situations in the State as well as changes in policy, and to ensure they are addressing current and expected conditions. The committee will also review the risk assessment and capabilities portion of the Plan to determine if this information needs to be updated or modified. Each strategy and the associated actions will be reported on by the party responsible for its implementation, and will include which implementation processes worked well, any difficulties encountered, how coordination efforts were proceeding, and which strategies or processes need to be revised or strengthened.

The committee will then create a list of recommendations that suggests ways to bring the Plan up to date, and any enhancements that can be made. The State Office of Planning will be responsible for making the necessary changes to the Plan, and the revised Plan must be submitted for approval by the State legislature no later than three months after the conclusion of the committee meeting.

FEMA will be notified of any changes to the plan, or will be given a justification of why no changes were deemed necessary.

In the case of a disaster declaration in the State, the Hazard Mitigation Plan can be updated if the State Office of Emergency Management believes this is necessary.

MONITORING PROGRESS OF MITIGATION ACTIVITIES

Requirement §201.4(c)(5)(ii) and (iii):	[The Standard State Plan Maintenance Process must include a] ▪ system for monitoring implementation of mitigation measures and project closeouts. ▪ system for reviewing progress on achieving goals as well as activities and projects in the Mitigation Strategy.

Explanation:

The plan **must** describe the State's monitoring system for tracking the initiation and status of projects as well as project closeouts, indicating who will be responsible for implementing and maintaining this system. This is important because without regular monitoring, mitigation actions may not be implemented as planned.

The plan **must** also describe how the State reviews the progress made on actions and projects and how well these contribute to achieving the plan's goals. The description **must** also include who is involved in the review and what the timeframe is for carrying out the review.

Plan Update:

The update **must:**

- Describe any modifications to the State's system used to track the initiation, status, and completion of mitigation activities;
- Discuss if mitigation actions were implemented as planned; and
- Indicate who will be responsible for continued management and maintenance of the monitoring system, including the timeframe for carrying out future reviews.

The system identified in this section of the plan will support demonstration of progress in statewide mitigation efforts under §201.4 (c)(3)(iii).

The update *should*:

- Describe any challenges that hindered implementation of mitigation measures and project close-outs and how these will be dealt with in the future. These could include technical, political, financial, legal, or agency coordination issues; and
- Describe any factors that contributed to successful implementation of mitigation measures.

Resource:

For information on the plan maintenance process, see:

✓ *Bringing the Plan to Life* (FEMA 386-4), Steps 3 and 4.

Examples:

Original Submittal:

Mitigation Division staff are responsible for the monitoring and tracking of progress of mitigation actions. The Division has an established quantifiable approach for measuring outcomes.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.4(c)(5)(ii) and (iii)		▪ While the plan indicates who is responsible for monitoring progress, the plan does not describe the approach being used. ▪ The plan does not describe the Division's approach for measuring outcomes nor how these are tied to the plan's overall goals.

Required Revisions:

To receive a "Satisfactory" score, the State must set up a schedule and assign responsibility and resources for monitoring and evaluating mitigation actions and project close-outs as well as progress on goals and projects. While not required by the Rule, special attention should also be given as to when baseline data would be updated to keep the plan current.

Revised Submittal:

Mitigation Division staff are responsible for the monitoring and tracking of progress of mitigation actions. ~~The Division has an established quantifiable approach for measuring outcomes~~. **The Division chief has assigned one person to follow-up with other agency staff on a quarterly basis. The person collects quarterly reports on measurable outcomes, which are then input into a database accessible to all participating agencies. Once a year these staff meet to review overall progress on achieving the plan's goals. This team has developed an evaluation form (see Appendix XX) that addresses outcomes or the success of projects; assesses new information provided through research and disaster assessment reports to update the baseline data; verifies project close-outs; and reviews the level of coordination among agencies, a key to the success in implementing the plan. A subcommittee of State University professors convenes once a year to review the new information and make recommendations to the HMC for updating the baseline data used in the risk analysis. This information is used to reassess project prioritization as necessary.**

Goals, objectives, and projects will be reviewed in the event of a disaster to determine whether they need to be modified to reflect

the new conditions and the findings appended to the existing plan.

The Mitigation Division regularly updates the State mitigation Web site with mitigation actions that have been successfully completed.

PART 2 – ENHANCED STATE MITIGATION PLANS

An Enhanced State Mitigation Plan documents the State's demonstrable and sustained commitment to the objectives of hazard mitigation. This designation recognizes the State as a proactive leader in implementing a comprehensive statewide program. The enhanced status acknowledges the extra effort a State has made to reduce losses, protect its resources, and create safer communities. For mitigation plans to receive this designation, the State must obtain a "Satisfactory" score on all of the Standard State Plan requirements as described in Part 1 of this manual. In addition, it must receive a "Satisfactory" score on each of the Enhanced State requirements.

The June 2007 revisions to this Guidance provide important new information regarding compliance with the Standard State Mitigation Plan requirements as discussed at 44 CFR 201.5(b). This change applies to both new and updated Enhanced State Mitigation Plans.

The sections covered in Part 2 – Enhanced State Mitigation Plans include:

- Prerequisite
- Comprehensive State Hazard Mitigation Planning Program

PREREQUISITE

The State submitting a mitigation plan for designation as an Enhanced State Mitigation Plan must meet the following prerequisite before FEMA can approve the plan.

1. COMPLIANCE WITH STANDARD STATE PLAN REQUIREMENTS

Requirement §201.5(b):	Enhanced State Mitigation Plans must include all elements of the Standard State Mitigation Plan identified in §201.4 … .
Explanation: ***(Rev. June 2007)***	In order to be considered for Enhanced Plan status, the plan **must** contain all the elements of the Standard Plan (per §201.4), in addition to meeting all the requirements listed in §201.5. All the elements required for the Standard Plan **must** receive a score of "Satisfactory" before the plan is reviewed for compliance with the Enhanced State requirements. All Enhanced State Mitigation Plans submitted for FEMA's approval on or after January 1, 2008, **must** include a current update of their Standard Plan elements. Each State should submit its draft Mitigation Plan to FEMA's Regional Office early enough to allow sufficient time for: 1. Region's review of all required elements (Standard and Enhanced portions); 2. Region's review of the State's program management capability; 3. National Evaluation Panel's review; 4. State completion of any required revisions to the plan; and 5. Adoption of the plan by the State and approval by FEMA before the existing plan expires.
Plan Update:	If the Enhanced elements of the State Mitigation Plan are not approved prior to the expiration of the existing plan, but the Standard requirements have been met, the FEMA Region may approve the plan as a Standard Plan. This will ensure continued program eligibility for the State, while still allowing the Enhanced review process and any required revisions to be completed. The approved Plan will be held to the initial three-year approval timeframe, and will not be extended as a result of any additional time needed for review, revision or approval of the Enhanced portion of the plan. This requirement is intended to ensure that (1) all plans are based on the most current information and (2) that there is a single approval date for each State Mitigation Plan. To provide consistency between the Standard and Enhanced sections of the plan, the updated Enhanced portion of the Plan **must** be revised as necessary to be consistent with all updates to the Standard portion of the Plan.

Resource: For more information on preparing and implementing a mitigation plan, see:

- ✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 3.
- ✓ *Bringing the Plan to Life* (FEMA 386-4), Step 2.

COMPREHENSIVE STATE HAZARD MITIGATION PLANNING PROGRAM

44 CFR §201.5 addresses Enhanced State Mitigation Plans. This is FEMA's effort to recognize those States that go above and beyond the minimum mitigation requirements by making them eligible to receive an increased amount of mitigation grant funding. Strong State and local mitigation planning processes and comprehensive mitigation program management at the State level are important elements in reducing vulnerability to future disaster losses. It is hoped that the Enhanced Plan option will encourage more States to take their planning to a higher level. For the Enhanced State Plan, States must meet all of the requirements of the Standard Plan, plus be able to demonstrate that the State already has a comprehensive mitigation program, demonstrate that they effectively use available mitigation funding, and demonstrate that they are capable of managing the increased funding.

The plan update process provides States the opportunity to revisit the information they originally provided to demonstrate these capabilities. Any improvement, reduction, or other changes to these capabilities should be noted in the plan.

This section includes the following six subsections:

- Integration with Other Planning Initiatives
- Project Implementation Capability
- Program Management Capability
- Assessment of Mitigation Actions
- Effective Use of Available Mitigation Funding
- Commitment to a Comprehensive Mitigation Program

2. INTEGRATION WITH OTHER PLANNING INITIATIVES

Requirement §201.5(b)(1):	[An Enhanced Plan must demonstrate] that the plan is integrated to the extent practicable with other State and/or regional planning initiatives (comprehensive, growth management, economic development, capital improvement, land development, and/or emergency management plans) and FEMA mitigation programs and initiatives that provide guidance to State and regional agencies.

Explanation:

(Rev. June 2007)

This requirement is similar to §201.4(b) for the Standard Plan, which is discussed previously in *Program Integration* (page 1–11), except that it also requires the State to detail how the Enhanced Plan is specifically integrated into other State, regional, and FEMA initiatives that provide primary guidance for hazard mitigation-related activities.

States might demonstrate that they have integrated the plan with planning initiatives that provide guidance by describing such activities as coordinating with developers of State plans (e.g., statewide economic development, capital improvement, or public works plans) to incorporate hazard mitigation priorities; passing State laws or regulations that mandate integration of mitigation considerations with other planning initiatives at the State level; and/or working with Regional Planning Authorities or Councils of Government.

When applying this requirement, reviewers should keep in mind the differences in planning conditions among States. For example, in States with extensive planning resources, integration with other plans may be more comprehensive. However, States with limited resources and little tradition of collaboration across agencies should receive credit for demonstrating measurable progress towards integration of efforts.

Examples of demonstrated integration with State and/or regional planning initiatives could include:

- How the State currently influences or coordinates with other State and regional agencies to incorporate hazard mitigation into their own programs, regulations and activities.
- How other agencies incorporate mitigation data or resources into their planning initiatives;
- How other State or regional agencies' planning initiatives are linked to or support specific hazard mitigation strategies;
- How other State or Regional planning initiatives promote mitigation as part of their authorities and responsibilities.

Examples of demonstrated integration with FEMA programs and initiatives that provide guidance to State and Regional agencies could include FEMA mitigation grant programs, as well as:

- Use of HAZUS within the State Plan and/or a description of how the State encourages or supports the use of HAZUS in the development of local mitigation plans;

- Discussion of how the mitigation plan is linked to Flood Map Modernization activities within the State;
- How the State utilizes information provided in FEMA technical documents related to building construction, codes and standards to incorporate mitigation into retrofitting existing buildings and/or strengthening new development;
- How the Enhanced Plan guides activities funded by Emergency Management Program Grants (EMPG); and/or
- How the Enhanced Plan encourages and supports local government participation in the Community Rating System (CRS) of the National Flood Insurance Program (NFIP).

Plan Update: States **must** demonstrate continued integration of the mitigation plan with other state and/or regional planning initiatives as well as FEMA mitigation programs. The update **must** include any planning initiatives that have been established since approval of the previous plan and describe how those initiatives help achieve progress toward the overall goals and objectives of mitigation planning.

Resource: For more information on integrating hazard mitigation activities in other initiatives, see:

- ✓ *Getting Started* (FEMA 386-1), Step 1.
- ✓ *Bringing the Plan to Life* (FEMA 386-4), Step 2.

Examples:

Original Submittal:

Integration with Other Planning Initiatives

In furthering the concept and practice of hazard mitigation across the State, the Hazard Mitigation Committee (HMC) created a subcommittee to explore the feasibility of integrating State hazard mitigation planning with other statewide planning initiatives such as the State Smart Growth initiative and the State economic development plan.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.5(b)(1)		▪ While it is encouraging that the HMC created a subcommittee to explore integration with other planning initiatives, a strategy to promote integration has not yet been developed.

Required Revisions:

The submittal must explain the steps that the planning committee has

taken or intends to take to integrate hazard mitigation.

Revised Submittal:

Integration with Other Planning Initiatives

In furthering the concept and practice of hazard mitigation across the State, the Hazard Mitigation Committee (HMC) created a subcommittee to explore the feasibility of integrating State hazard mitigation planning with other statewide planning initiatives such as the State Smart Growth initiative and the State economic development plan. **The subcommittee developed the following strategy to further this work:**

- **The State Hazard Mitigation Officer met with the Director and Assistant Director of the State Economic Development Agency to discuss integration of hazard mitigation concepts into economic development initiatives. The meeting produced a commitment from the Director to invite HMC representatives to participate in upcoming strategic planning sessions. The strategic plan is to be completed before the next budget cycle.**
- **The Governor's Authorized Representative, who co-chairs the HMC, has agreed to have the Governor's office develop an executive order directing State agencies to work with the HMC to integrate hazard mitigation concepts into State operations where feasible.**
- **The HMC is developing a presentation and training program to educate State workers about the need for hazard mitigation and the ways that mitigation can be integrated into everyday operations.**
- **The State Smart Growth Office, a strong supporter of hazard mitigation, and with representation on the HMC, has developed a new position, Hazard Reduction Policy Coordinator. The Coordinator is the first paid hazard mitigation employee hired by the State who is outside the State Office of Emergency Preparedness.**

These new initiatives will create a comprehensive approach to reducing losses in the State. The State's CRS and FMA programs have been in place since these programs were created. Additionally, the State received PDM funding for all planning and project grant applications it submitted in fiscal year 2004.

3. PROJECT IMPLEMENTATION CAPABILITY

Requirement §201.5(b)(2)(i) and (ii):	[The Enhanced Plan must document] the State's project implementation capability, identifying and demonstrating the ability to implement the plan, including: ▪ Established eligibility criteria for multi-hazard mitigation measures. ▪ A system to determine the cost effectiveness of mitigation measures, consistent with OMB Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, and ▪ [A system] to rank the measures according to the State's eligibility criteria.
Explanation: ***(Rev. June 2007)***	These requirements build on §201.4(c)(3)(ii), which is discussed in the sections on State and local capability assessment on pages 1-37 through 1-42. However, while §201.4(c)(3)(ii) requires that the State demonstrate its capabilities to implement policies and programs to mitigate hazards, §201.5(b)(2)(i) requires that States identify their eligibility criteria for mitigation actions during the planning process. Development of such criteria was formerly undertaken during the *grant application process*. These eligibility criteria should be integral to developing a State's mitigation strategy where, ideally, mitigation actions would be categorized by short, medium, and long-term timeframes and then further prioritized as high, medium, or low. Per §201.5(b)(2)(ii), States **must** also describe their approach to evaluating the cost-effectiveness of identified actions and explain or demonstrate how this approach is consistent with OMB Circular A-94. The description should include the agency and staff responsible for conducting benefit-cost analyses, reviews, or any other assessment method used. For all State and FEMA mitigation programs, the plan **must** describe how the State ranks mitigation measures according to its eligibility criteria. The system **must** include a process for prioritizing projects among jurisdictions and among proposals that address different or multiple hazards. The system does not have to be a point system or grading scale but should clearly explain how projects are prioritized.
Plan Update:	The documentation of project implementation capability **must** explain any changes to eligibility criteria, including any that have been added or eliminated since the approval of the previous plan, and any changes to the system of determining the cost effectiveness of mitigation measures consistent with OMB Circular A-94. States **must**, at a minimum, ensure their Mitigation Plan includes eligibility criteria and a system for cost effectiveness determination for **all** State and FEMA mitigation grant programs (HMGP, FMA, PDM, SRL, RFC). Project implementation procedures for HMGP may be directly included in the State Mitigation Plan or referenced back to the HMGP

Administrative Plan.

Resource: For information on prioritizing actions and determining eligibility, and for a discussion about methods to determine cost effectiveness, see respectively:

- ✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 2.
- ✓ *Mitigation Benefit Cost Analysis (BCA) Toolkit Compact Disc (CD).*
- ✓ *OMB Circular A-94: See http://www.whitehouse.gov/omb/circulars/a094/a094.html*

Examples:

N/S

Original Submittal:

During the formation of its Mitigation Strategy, the State developed eligibility criteria for determining how hazard mitigation projects will be addressed. These criteria were initially developed for the HMGP application and have been revised.

Each County within the State provided a prioritized list of mitigation projects for their municipalities. These projects included such things as buyouts for repetitive flood loss properties, the building of tornado shelters, the application of certain communities to the CRS program, and the development of new routes for the transportation of hazardous materials. The State then categorized these projects by their priority to the County, their cost, and the timeframe for implementation.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.5(b)(2) (i) and (ii)		▪ The plan does not list the eligibility criteria, the method used to determine cost effectiveness, or the system for ranking actions.

Required Revisions:

The plan must list its eligibility criteria and address how cost-benefit analysis, review, or other methods were used to determine cost effectiveness of actions. It must also describe the system for ranking eligible actions.

N S

Revised Submittal:

During the formation of its Mitigation Strategy, the State developed eligibility criteria for determining how hazard mitigation projects will be addressed. ~~These criteria were initially developed for the HMGP~~

~~application and have been revised.~~ **This was done through the State Hazard Mitigation Planning Committee in regular meetings with the Counties. The eligibility criteria requires projects to:**

- **Be cost effective.**
- **Address repetitive loss properties.**
- **Be located in the most vulnerable areas identified in the State Hazard Mitigation Plan.; and**
- **Have local matching funds (including in-kind contributions).**

~~Each County within the State provided a prioritized list of mitigation projects for their municipalities. These projects included such things as buyouts for repetitive flood loss properties, the building of tornado shelters, the application of certain communities to the CRS program, and the development of new routes for the transportation of hazardous materials. The State then categorized these projects by their priority to the County, their cost, and the time frame for implementation.~~

The State helped the Counties apply a cost-benefit analysis to their proposed mitigation projects. The Counties used this analysis to prioritize their projects. Projects were prioritized by such items as frequency of the disaster being mitigated, financial impact to the community, human losses, and timeframe for completion. For example, flooding is the biggest concern in certain areas of the State, whereas in the "flats" tornadoes are the major concern. Each County has a different prioritization for hazard mitigation projects within its jurisdiction (see Appendix XX for a list of criteria provided by County).

The State is then responsible for prioritizing each of the County's projects with respect to how much and when State help will be available. The State takes the number one priority for each County and then ranks these projects by giving a certain number of points to as follows:

- **Cost effectiveness (i.e., those projects that demonstrate that they are the most cost effective) (20 to 35 points).**
- **Listing on the Repetitive Loss Property List (40 points).**
- **Location within the most vulnerable areas in the State (10 to 25 points).**

In addition to funding, the State provides support to the Counties in several ways, including actual project implementation, seeking additional funding, project support, public involvement activities, and the provision of additional information (see Appendix XX for a list of ranked projects).

The State Hazard Mitigation Committee (HMC) tracks when and how projects are being implemented, as well as how their funding is being used (see Section XX of the plan for more details). If there is a problem or conflict with a project, the State acts as a mediator to resolve the problem as quickly and efficiently as possible. The State

also conducts "lessons learned" meetings with Counties as necessary. As projects are completed, the State makes note of this in each County's file and maintains records on every project.

4. PROGRAM MANAGEMENT CAPABILITY

Requirement §201.5(b)(2)(iii A-D):	[The Enhanced Plan must demonstrate] that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, [and provide] a record of the following: ▪ Meeting HMGP and other mitigation grant application timeframes and submitting complete, technically feasible, and eligible project applications with appropriate supporting documentation; ▪ Preparing and submitting accurate environmental reviews and benefit-cost analyses; ▪ Submitting complete and accurate quarterly progress and financial reports on time; and ▪ Completing HMGP and other mitigation grant projects within established performance periods, including financial reconciliation.
Explanation: ***(Rev. June 2007)***	Because approval of an Enhanced Plan results in increased HMGP grant funding, this section requires States to demonstrate their capabilities to effectively manage the HMGP and other mitigation grant funds, including funds from the Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA) and Repetitive Flood Claims (RFC) programs, they have previously received. FEMA Regional offices will evaluate and certify that the State has the capability to effectively manage FEMA mitigation grant programs. The State is currently not required to document this in their plan. The criteria that are used for this evaluation are currently being refined and will be revised with State input. FEMA has been utilizing an *Enhanced State Multi-Hazard Mitigation Plan Program Information Worksheet*, dated May 2005, to evaluate the requirements under §201.5(b)(2)(iii A-D). This worksheet will continue to be utilized until the revised criteria are issued. The revised criteria will not be implemented immediately upon release, but will be effective a sufficient interval of time after publication to allow the State to demonstrate capability under the revised criteria.
Plan Update:	Any update of this element will be successfully met through the State's continued demonstration that, for the past 3-year period, it has maintained the capability to effectively manage the HMGP as well as other mitigation grant programs. FEMA regional offices will re-evaluate and re-certify that, for the past 3-year period, the State has demonstrated the capability to effectively manage the HMGP and other mitigation grant programs.

5. ASSESSMENT OF MITIGATION ACTIONS

Requirement §201.5(b)(2)(iv):	[The Enhanced Plan must document the] system and strategy by which the State will conduct an assessment of the completed mitigation actions and include a record of the effectiveness (actual cost avoidance) of each mitigation action.
Explanation:	§201.5(b)(2)(iv) builds on §201.4(c)(5)(ii) and (iii), which were discussed previously in *Monitoring Progress of Mitigation Activities* (page 1-59). States **must** describe how they would assess the effectiveness of each completed mitigation action, what agency or agencies will be involved in the assessment, and indicate the timeframe for carrying out this assessment. The results of this assessment will be necessary during the next plan update to verify achievement of the plan's goals and objectives, and to fine-tune or revise the mitigation strategy. The State **must** describe how it will track potential losses avoided for each action taken (e.g., by developing a database or GIS system) since, in many cases, losses avoided cannot be accurately determined until a disaster occurs and damages are assessed.
Plan Update:	States **must** describe how they assessed, and how they will continue to assess, the effectiveness of completed mitigation actions, including discussion of those agencies whose involvement was initially proposed and those who actually participated in the assessment, and the timeframe required to complete the assessment. The State **must** describe how it tracked, and will continue to track, potential losses avoided for each action taken. Where disasters have occurred since the approval of the previous plan, the update **must** include a record of the actual cost avoidance of each completed mitigation action. FEMA recognizes that there may be unforeseeable situations where, due to the timing, magnitude of one or more disaster(s) and/or the large number of completed mitigation actions for which losses avoided must be assessed, it is impracticable for the State to complete the assessment of losses avoided within the timeframe by which the updated plan must be submitted to FEMA for approval. If such a situation exists, the plan **must**: • Include a discussion of the unforeseeable circumstances (including timing of the event or events and the number of mitigation actions for which losses avoided must be assessed); • The system or approach that will be used to assess losses avoided, and • A proposed timeframe for completing this work.
Resource:	For information on how to evaluate the effectiveness of mitigation actions see: *Bringing the Plan to Life* (FEMA 386-4), Step 3.

Examples:

Original Submittal*:*

The State has established a method to determine the effectiveness of mitigation actions being undertaken in the State. During the preparation of the State Hazard Mitigation Plan, the State partnered with the State University to develop several economic analysis models to determine the economic feasibility of various past mitigation actions. One of these models considered reductions in physical damages and financial losses that helped determine the effectiveness of mitigation actions by showing the resulting reduction in damages and losses. Other models showed various cost-benefit analyses to help communities decide which mitigation activities to implement.

Several of the State's communities currently have hazard mitigation plans in place. The economic models can be applied to those existing plans as well as help communities who are in the process of developing hazard mitigation plans. The State will provide help to the local communities in running and analyzing the economic models.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.5(b)(2)(iv)		▪ The State is active in trying to assess the effectiveness of its mitigation actions; however, no specifics are given. ▪ It is not clear what agency or agencies will be responsible for developing and implementing the economic modeling analyses or how the local communities will benefit.

Required Revisions:

The plan must provide specific information about how the effectiveness of mitigation actions will be assessed. Specific agency or agencies must be mentioned and a timeframe for conducting these assessments must be developed.

Revised Submittal:

~~The State has established a method to determine the effectiveness of mitigation actions being undertaken in the State. During the preparation of the State Hazard Mitigation Plan, the State partnered with the State University to develop several economic analysis models to determine the economic feasibility of various past mitigation actions. One of these models considered reductions in physical damages and financial losses that helped determine the effectiveness of mitigation actions by showing the resulting reduction in damages and losses. Other models showed~~

~~various cost-benefit analyses to help communities decide which mitigation activities to implement.~~

As part of the State Hazard Mitigation Plan, the State Office of Economic Development partnered with the State University to develop several economic models to assess the losses avoided by various mitigation actions. These models used hazard data from recent events to determine the likely damages to structures *had mitigation actions not taken place*. The models then used the probability of the event to calculate the avoided damages based on the net present value of the benefits.

~~Several of the State's communities currently have hazard mitigation plans in place. The economic models can be applied to those existing plans as well as help communities who are in the process of developing hazard mitigation plans. The State will provide help to the local communities in running and analyzing the economic models.~~

The Office of Economic Development is working with local communities to help them apply these analyses. A majority of the State's communities already have implemented some mitigation actions, and these models can be applied to quantify the benefits of mitigation activities identified in previous mitigation plans. The State Office of Planning is working with the remainder of the communities to develop hazard mitigation plans, whereupon economic feasibility analyses can be applied to specific mitigation strategies.

Following hazard events in the areas receiving mitigation action, communities will be required to show what damages and losses have been avoided (e.g., structural damages prevented, business inventory damages prevented, rental income losses avoided, personal property losses prevented) by implementing their mitigation strategies. The communities are allowed discretion in determining how they will track losses avoided (e.g., utilizing GIS or database technology).

The Office will review these analyses and provide feedback to the communities. The Office of Economic Development will conduct yearly checks on the communities to ensure that they are using these analyses effectively. It is recognized that non-economic factors are a major consideration and are difficult to incorporate into economic modeling.

6. EFFECTIVE USE OF AVAILABLE MITIGATION FUNDING

Requirement §201.5(b)(3):	[The Enhanced Plan must demonstrate] that the State effectively uses existing mitigation programs to achieve its mitigation goals.
Explanation:	In order for FEMA to increase the amount of HMGP funding available to a State in subsequent disasters, it is important that the State document that it has fully and effectively made use of FEMA and other funding already at its disposal. States **must** demonstrate how they have taken advantage of FEMA programs, such as FMA, HMGP, PDM, SRL and RFC to fund mitigation actions. If States have used other FEMA and non-FEMA funding to support mitigation, they *should* include this documentation as well. The State *should also* discuss how it leveraged its own funds (i.e., to provide match or cost share) with FEMA or other federal programs to implement mitigation.
(Rev. June 2007)	If the State has not made full use of existing mitigation programs, the plan **must** explain the reasons why. Acceptable reasons include, but are not limited to, unavailable non-federal match, uninterested property owners, or insufficient program funds to implement prioritized mitigation actions. Limited staff resources is not considered an acceptable reason, and would invalidate §201.5(b)(2)(iii) that requires the State to demonstrate program management capability (see pages 2-12 and 2-13, Part 1, items A.1. through A.4.).
	In addition to describing actions and projects that have been implemented, the plan **must** link the projects to specific State goals and objectives and assess the effectiveness of the projects in achieving the goals.
	The plan *should* also describe the State's strategy for ensuring continued effective use of resources (e.g., forming partnerships to leverage funding).
Plan Update:	The updated plan **must** document how the State has fully made use of funding available through FEMA mitigation programs, including the HMGP, PDM, FMA, SRL and RFC programs.
	The updated plan **must** also document how the State effectively uses existing mitigation programs to achieve its mitigation goals.
Resource:	For information on how to evaluate the effectiveness of mitigation actions in achieving the plan's goals, see: ✓ *Bringing the Plan to Life* (FEMA 386-4), Step 3.

Examples:

N/S

Original Submittal:

The State uses a variety of funds and programs to achieve its mitigation goals, including the Flood Mitigation Assistance Program (FMA), the Hazard Mitigation Grant Program (HMGP), and the State Hazard Mitigation Assistance Initiative (HMAI).

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.5(b)(3)		▪ The plan needs to explain *how* the State has taken advantage of all of the hazard mitigation opportunities currently available to them.

Required Revisions:

The revised plan must explain how the State uses Federal and State hazard mitigation funds and programs to achieve its goals, including the possible combination of two or more funding programs.

N S

Revised Submittal:

The State uses a variety of funds and programs to achieve its mitigation goals, including the Flood Mitigation Assistance Program (FMA), the Hazard Mitigation Grant Program (HMGP), and the State Hazard Mitigation Assistance Initiative (HMAI). **These are described below:**

Flood Mitigation Assistance Program (FMA): The State has facilitated the use of FMA funds by local governments for the development of local hazard mitigation plans and projects. The State Hazard Mitigation Grant Coordinator visits each County yearly to develop local project applications and provides project management oversight for the grant. The State's goal is to have one-quarter of its communities using FMA project, planning, or technical assistance funds each year to help fund planning initiatives, projects, or flood hazard studies.

Hazard Mitigation Grant Program (HMGP): The State has facilitated the use of HMGP funds for post-disaster hazard mitigation projects. Because HMGP funds are post-disaster funds and their availability from year to year is uncertain and limited, the State only allows funding for local projects that are captured in existing local hazard mitigation strategies. Also, the State uses its 5% HMGP set-aside to help fund State technical assistance to local governments.

State Hazard Mitigation Assistance Initiative (HMAI): The State can provide up to 12.5% matching funds through the HMAI to help fund local hazard mitigation projects implemented through HMGP or FMA. These funds are provided to localities based first on need (i.e., there are few local resources to meet the 25% match requirement for Federal grants), and then on a competitive basis that compares benefit-cost analyses, environmental compatibility and justice, and political viability across jurisdictions.

7. COMMITMENT TO A COMPREHENSIVE MITIGATION PROGRAM

Requirement §201.5(b)(4)(i-vi):

[The Enhanced Plan must demonstrate] that the State is committed to a comprehensive state mitigation program, which might include any of the following:

- A commitment to support local mitigation planning by providing workshops and training, State planning grants, or coordinated capability development of local officials, including Emergency Management and Floodplain Management certifications.
- A Statewide program of hazard mitigation through the development of legislative initiatives, mitigation councils, formation of public/private partnerships, and /or other executive actions that promote hazard mitigation.
- The State provides a portion of the non-Federal match for HMGP and/or other mitigation projects.
- To the extent allowed by State Law, the State requires or encourages local governments to use a current version of a nationally applicable model building code or standard that addresses natural hazards as a basis for design and construction of State sponsored mitigation projects.
- A comprehensive, multi-year plan to mitigate the risks posed to the existing buildings that have been identified as necessary for post-disaster response and recovery operations.
- A comprehensive description of how the State integrates mitigation into its post-disaster recovery operations.

Explanation:

The intent of this requirement is to allow States to describe mitigation-related activities that do not necessarily have a basis in a program or regulation. These activities truly show State commitment to reducing losses from hazards. States may demonstrate this commitment by describing how they have successfully implemented programs or projects that have reduced their exposure to hazards and how they will build on these past successes. Each State's mitigation strategy may include, but is not limited to, any of those elements mentioned above. Other actions that go "above and beyond" the requirements of the Standard Plan will be considered. If a State has no previous experience with mitigation initiatives, then the plan may only contain the various elements that the State proposes to implement. In either case, States *should* provide a timeframe for implementing these initiatives.

If the documentation to satisfy this plan requirement is not included in its own section of the plan, the plan review crosswalk accompanying the plan *should* identify where in the plan these various commitments are described.

Plan Update: The plan update process includes the review of those mitigation-related initiatives identified in the previously approved plan. The update **must** demonstrate progress in implementing a comprehensive state mitigation program. Any additional mitigation initiatives that have been developed and/or implemented in the intervening period **must** be described in the updated plan.

Special Considerations: Although the Rule requirements do not specifically mention the development of a statewide risk assessment as a means to facilitate better coordination and detail in local mitigation planning, carrying out such an activity is a good way to meet this particular requirement.

Resource: For information on implementing a hazard mitigation program, see:

- ✓ *Bringing the Plan to Life* (FEMA 386-4), Step 2.

For ideas and examples of mitigation programs, policies, and projects, see:

- ✓ *Developing the Mitigation Plan* (FEMA 386-3), Steps 1 and 2.

Examples:

N/S

Original Submittal:

The State has developed a program by which it provides hazard mitigation training workshops for local governments. The State advertises the availability of the program through a brochure mailing that details the procedures for requesting the workshop.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.5(b)(4)(i-vi)		▪ The description of providing assistance is very brief; it does not include such details as the duration of the workshops, the staff or agencies providing training, or sources of funding.

Required Revisions:

The plan must document in detail the process by which the State implements its hazard mitigation programs and initiatives. If the program has been in place for some time, the plan should provide details about the results or performance of the program.

N S

Revised Submittal:

The State has developed a program by which it provides hazard mitigation

training workshops for local governments. The State advertises the availability of the program through a brochure mailing that details the procedures for requesting the workshop. **After a local government requests the training workshop, the State coordinates the logistical details with the local government for holding the workshop.**

The following State HMC representatives have been trained and authorized to conduct training for local governments on hazard mitigation planning:

- **The State Hazard Mitigation Officer, State Office of Emergency Preparedness**
- **The Hazard Reduction Policy Coordinator, State Smart Growth Office**
- **The Environmental Stewardship Officer, State Division of Environmental Protection**

Funding for the two-day workshop is provided through the State Hazard Mitigation Assistance Initiative (HMAI) and local funds. Each County government receives up to $1,500 to arrange the location, audio/visual equipment, invitations to interested staff and other local interested parties, and food. Any shortfall is made up through local funds. Since the training workshop program's initiation in 1999, five workshops have been conducted, and each of these localities has submitted a compliant hazard mitigation plan within one year of the workshop, as required.

PART 3 – LOCAL MITIGATION PLANS

Local Mitigation Plan requirements in §201.6 of the Interim Final Rule (the Rule) apply to both local jurisdictions and Tribal governments that elect to participate in FEMA mitigation grant programs as a subapplicant or subgrantee (henceforth referred to as local jurisdictions). The local mitigation planning requirements in this section encourage agencies at all levels, local residents, businesses, and the non-profit sector to participate in the mitigation planning and implementation process. This broad public participation enables the development of mitigation actions that are supported by these various stakeholders and reflect the needs of the community. Private sector participation, in particular, may lead to identifying local funding that would not otherwise have been considered for mitigation activities.

As with State plans, the DMA 2000 requirements for local plans require that communities address only natural hazards. FEMA recommends, however, that local comprehensive mitigation plans address manmade and technological hazards if possible. In many instances, natural disasters have secondary effects, such as dams breaking due to floods, or hazardous material releases due to tornadoes. Multi-hazard plans will better serve communities in the event of such disasters.

States are required to coordinate with local governments in the formation of hazard mitigation strategies, and the local strategies combined with initiatives at the State level form the basis for the State Mitigation Plan. With the information contained in Local Mitigation Plans, States are better able to identify technical assistance needs and prioritize project funding. Furthermore, as communities prepare their plans, States can continually improve the level of detail and comprehensiveness of statewide risk-assessments.

For the Pre-Disaster Mitigation (PDM) program, local jurisdictions must have an approved mitigation plan to receive a project grant. Local jurisdictions must have approved plans by November 1, 2004, to be eligible for Hazard Mitigation Grant Program (HMGP) funding for Presidentially declared disasters after this date. Plans approved at any time after November 1, 2004, will make communities eligible to receive PDM and HMGP project grants.

The sections covered in Part 3 – Local Mitigation Plans include:

- Prerequisites
- Planning Process
- Risk Assessment
- Mitigation Strategy
- Plan Maintenance Process

PREREQUISITES

The local jurisdictions submitting the plan **must** satisfy the following prerequisites before the plan can be approved by FEMA.

ADOPTION BY THE LOCAL GOVERNING BODY

Requirement §201.6(c)(5):	[The local hazard mitigation plan shall include] documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council).
Explanation:	Adoption by the local governing body demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in the plan. Adoption legitimizes the plan and authorizes responsible agencies to execute their responsibilities. The plan **shall** include documentation of the resolution adopting the plan.
Resource:	For more information about adopting the mitigation plan, see: ✓ *Bringing the Plan to Life* (FEMA 386-4), Step 1.
Scoring:	❑ Not Met. The plan has not been formally adopted by the local governing body. ❑ Not Met. The plan has been formally adopted by the local governing body, but a copy of the signed plan adoption resolution is <u>not</u> included. ❑ Met. The plan has been formally adopted by the local governing body and a copy of the signed plan adoption resolution is included.

MULTI-JURISDICTIONAL PLAN ADOPTION

Requirement §201.6(c)(5):	For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.
Explanation:	In order for multi-jurisdictional plans to be approved, each jurisdiction that is included in the plan **must** have its governing body adopt the plan before submission to the State and FEMA, even when a regional agency has the authority to prepare such plans in the name of the respective jurisdictions.
Resource:	For more information about adopting the mitigation plan, see: ✓ *Bringing the Plan to Life* (FEMA 386-4), Step 1.
Scoring:	❑ Not Met. The plan has not been formally adopted by any local governing body. ❑ Met. The plan has been formally adopted by at least one local governing body and a copy of each of the signed plan adoption resolutions is included. Alternatively, the agency responsible for submitting the plan may certify that each of the local governing bodies has adopted the plan and that resolutions are available for review at its office.

MULTI-JURISDICTIONAL PLANNING PARTICIPATION

Requirement §201.6(a)(3):	Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process … Statewide plans will not be accepted as multi-jurisdictional plans.

Explanation: A multi-jurisdictional plan, as prepared by regional planning and development authorities (e.g., watershed/river basin commission), is acceptable as a Local Mitigation Plan under DMA 2000. However, those jurisdictions within the planning area that do not participate in its development will not be eligible for future mitigation project grant assistance from FEMA. Therefore, the plan **must** document how each jurisdiction requesting FEMA recognition of the plan participated in the planning process.

Resource: For more information on initiating a comprehensive local mitigation planning process, see:

- ✓ *Getting Started* (FEMA 386-1), Steps 1 – 4.

Scoring:

- ❑ Not Met. The plan does not describe how each jurisdiction requesting FEMA recognition actively participated in the planning process.
- ❑ Met. The plan describes how each jurisdiction requesting FEMA recognition actively participated in the planning process.

PLANNING PROCESS

§201.6(b) requires that there be an open public involvement process in the formation of a plan. This process shall provide an opportunity for the public to comment on the plan during its formation as well as an opportunity for any neighboring communities, businesses, and other interested parties to participate in the planning process. This public involvement, along with the review of any existing plans, studies, reports, and technical information and incorporation of these in the plan, will assist in the development of a comprehensive approach to reducing losses from natural disasters.

§201.6(c)(1) requires the documentation of the planning process, including how the plan was prepared, who was involved in the process, and how the public was involved.

This section includes the following subsection:

- Documentation of the Planning Process

DOCUMENTATION OF THE PLANNING PROCESS

Requirements §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. [The plan shall 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.

Explanation:

The description of the planning process **shall:**

- Indicate how the public (residents, businesses, and other interested parties) was given the opportunity to comment on the plan during the drafting stage and prior to plan approval (e.g., public meetings, Web pages, storefronts, toll-free telephone lines, etc.).
- Include a discussion of the opportunity provided for neighboring communities, agencies involved in hazard mitigation, and businesses, academia, and other relevant private and non-profit interests to be involved.
- Describe the review of any existing plans, studies, reports, and technical information and how these are incorporated into the plan.

The plan **shall** document how the plan was prepared (e.g., the time period to complete the plan, the type and outcome of meetings), who was involved in the planning process (e.g., the composition of the planning team), and how the public was involved.

The plan *should* also document how the planning team was formed and how each party represented contributed to the process. Ideally, the local mitigation planning team is composed of local, State, and Federal agency representatives, as well as community representatives, local business leaders, and educators.

Special Considerations:	The planning team *should* consider adding a general description of the jurisdiction in this section or in the introduction of the plan. The description can include a socio-economic, historic, and geographic profile to provide a context for understanding the mitigation actions that will be implemented to reduce the jurisdiction's vulnerability.

Resource:

For more information on the planning process; ideas on identifying stakeholders and building the planning team, generating public interest, enlisting partners, and choosing an appropriate public participation model; and advice to local governments seeking to initiate a comprehensive local mitigation planning process, see:

- ✓ *Getting Started* (FEMA 386-1), Steps 1 – 3.

Examples:

Original Submittal:

The Pleasant County Planning Department has developed a local hazard mitigation plan. The Planning Department formed a planning team composed of representatives from State government, local City governments, community groups, local businesses, and the State University, which is located in Pleasant County. The plan was developed over one year.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(b) and §201.6(c)(1)		▪ The planning process included representatives from many organizations, but there is no mention of opportunities for the public to comment on the plan. ▪ The plan does not indicate that an opportunity was provided for neighboring communities, agencies, etc. to be involved in the planning process. ▪ The plan does not indicate whether any appropriate existing plans, studies, reports, and technical information were reviewed and incorporated.

Required Revisions:

To receive a "Satisfactory" score, the plan must include more specific details on the planning process and discuss opportunities provided to the public to comment on the plan.

N S

Revised Submittal:

~~The~~ Pleasant County ~~Planning Department~~ has developed a local hazard mitigation plan. **The County Planning Department was responsible for development of the plan.** The Planning Department formed a planning team composed of representatives from State government, local City governments, community groups, local businesses, and the State University, which is located in Pleasant County **(see Appendix XX for a list of team members). This team met every two weeks for three months and once a month thereafter. The team also held two meetings with adjacent counties to obtain their involvement in the planning process.** The plan was developed over one year.

An effort was made to solicit public input during the planning process and four public meetings were held during the formation of the plan: one at the beginning, one after a first draft was produced, one after a final draft was produced, and one public hearing that was held two weeks before the plan was adopted. Citizens could also access the County Hazard Mitigation Plan Web site to provide input.

The State University assisted greatly in the development of the plan by providing graduate students from the Urban Studies and Planning Department to help County Planning Department Staff. The students were very helpful in collecting existing plans, studies, and reports as well as interviewing officials to obtain the latest status on projects identified in plans. The planning team used the information to create a report on upcoming and current projects designed to reduce Pleasant County's vulnerability. The list of documents reviewed is included in Appendix XX. These students helped organize the public meetings and maintained the Web site.

Feedback received from the public proved valuable in the development of the plan. Several comments were received that led to the rethinking of some proposed priority mitigation actions, including some from residents of the rural southern portion of the County that illustrated the need for assistance with maintaining drainage channels. As access to this very rural area is by one-lane or gravel roads, it is often overlooked by the County Public Works Office. During the last heavy rainfall several of the small creeks were blocked by debris, causing backup flooding of several of the properties. Maintenance and clearing of channels are activities that are now included in the flood hazard portion of the Hazard Mitigation Plan.

RISK ASSESSMENT

§201.6(c)(2) of the Rule requires local jurisdictions to provide sufficient information from which to develop and prioritize appropriate mitigation actions to reduce losses from identified hazards. This includes detailed descriptions of all the hazards that could affect the jurisdiction along with an analysis of the jurisdiction's vulnerability to those hazards. Specific information about numbers and types of structures, potential dollar losses, and an overall description of land use and development trends should be included in this analysis. For multi-jurisdictional plans, any risks that affect only certain sections of the planning areas must also be assessed in the context of the affected area.

Recognizing that data may not be readily available to complete the risk assessment at this time, FEMA recommends that plans identify any data limitations. Actions to obtain the data to complete and improve future risk analysis efforts should be included in the mitigation strategy.

While the Rule does not require the use or inclusion of maps as part of the plan, FEMA recommends the use of maps, where appropriate, to illustrate the required risk assessment information. Additionally, addressing manmade hazards in the plan is not necessary to meet the Rule requirements, but is encouraged.

For helpful definitions of risk assessment and related terms, please refer to *Understanding Your Risks* (FEMA 386-2), Appendix A, Glossary.

This section includes the following six subsections as follows:

- Identifying Hazards
- Profiling Hazards
- Assessing Vulnerability: Overview
- Assessing Vulnerability: Identifying Structures
- Assessing Vulnerability: Estimating Potential Losses
- Assessing Vulnerability: Analyzing Development Trends
- Multi-jurisdictional Risk Assessment

IDENTIFYING HAZARDS

Requirement §201.6(c)(2)(i):	[The risk assessment shall include a] description of the type … of all natural hazards that can affect the jurisdiction … .

Explanation:

The local risk assessment **shall** identify and describe the hazards likely to affect the area. It is critical that the plan identify all the natural hazards that can affect the jurisdiction, because the hazard identification is the foundation for the plan's risk assessment, which in turn is the factual basis for the mitigation strategy. If the hazard identification omits (without explanation) any hazards commonly recognized as threats to the jurisdiction, this part of the plan cannot receive a "Satisfactory" score.

While not required by the Rule, the plan *should* describe the sources used to identify hazards, and provide an explanation for eliminating any hazards from consideration. The process for identifying hazards could involve the following:

- Reviewing the State hazard mitigation plan, reports, plans, flood ordinances, and land use regulations, among others;
- Talking to experts from Federal, State, and local agencies and universities;
- Searching the Internet and newspapers; and
- Interviewing long-time residents.

Resource:

For more information on identifying hazards, see:

- ✓ *Understanding Your Risks* (FEMA 386-2), Step 1, Worksheet #1 Identify the Hazards.
- ✓ *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7), Phase 2.
- ✓ *Multi-Hazard Identification and Risk Assessment.*
- ✓ HAZUS-MH at www.fema.gov/HAZUS/.
- ✓ Firewise at www.firewise.org.

Examples:

Original Submittal:

Pleasant County has identified several hazards to be addressed in the County's Hazard Mitigation Plan. These hazards were identified during the development of the County's plan based on input from Planning Committee members, and were determined to be the hazards that

present the highest risk for the County.

The Pleasant County Mitigation Plan addresses the following hazards:

- Hurricanes
- Flooding
- Terrorism

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(2)(i)		▪ It is not clear if the County identified all relevant hazards. ▪ The County did not indicate how the hazards were identified.

Required Revisions:

To receive a "Satisfactory" score, the plan must include coastal erosion as a hazard since a portion of the County lies along the coast.

N S

Revised Submittal:

Pleasant County ~~has~~ identified several hazards ~~to be~~ **that are** addressed in the County's Hazard Mitigation Plan **(Table 1).** These hazards were identified ~~during the development of the County's plan based on input from Planning Committee members, and were determined to be the hazards that present the highest risk for the County.~~ **through an extensive process that utilized input from Planning Committee members (comprised of representatives from County agencies, City governments, local businesses, community groups, State Emergency Management Offices, and the State University), public input, researching past disaster declarations in the County, a review of current FIRMs, and risk assessments completed by the County Emergency Management Agency.**

~~The Pleasant County Mitigation Plan addresses the following hazards:~~

~~▪ Hurricanes~~

~~▪ Flooding~~

~~▪ Terrorism~~

In addition, the County Planning Agency is developing a GIS database that will map the County's infrastructure, critical facilities, and land uses. Initial data from this study was also used to determine those hazards that present the greatest risk to the County.

Table 1: Hazards in Pleasant County

Hazard	*How identified*	*Why identified*
Hurricanes	• Review of past disaster declarations • Input from County Department of Natural Resources • Input from residents • Risk Assessments	• The County is hit almost every year by a hurricane • Hurricanes have caused damage (personal and property), flooding, and evacuation situations
Flooding (Riverine and Coastal)	• Review of FIRMs • Input from County Planning Office • Risk Assessments • Public input • Review of past disaster declarations • Identification of NFIP repetitive loss properties in the County	• Associated with the effects of hurricanes, which hit the County frequently • Several repetitive loss properties are located in the County • The County contains many rivers and streams, and is located along the coast
Coastal Erosion	• Input from County Planning Office • Input from County Department of Natural Resources • Input from the State University (conducting shoreline research) • Public input	• The County is undergoing development pressure along the coast • Coastline stabilization measures have been implemented in the past year • Related to hurricane frequency
Terrorism	• Input from local utility company • Public input	• Nuclear power plant is located in the County • Heightened sense of security since September 2001

PROFILING HAZARDS

Requirement §201.6(c)(2)(i):	[The risk assessment shall include a] description of the … location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

Explanation:

The description of each hazard **shall** include the following information:

- The **location** or geographical areas in the community that would be affected.
- The hazard **extent** (i.e., magnitude or severity) of potential hazard events. For those hazards not geographically determined, plans **shall** indicate their applicable intensity. For example, in areas where tornadoes occur, plans *should* indicate the recorded intensities of previous events.
- The **probability**, likelihood, or frequency that the hazard event would occur in an area.

The plan **shall** also provide a discussion of **past occurrences** of hazard events in or near the community. This discussion *should* include:

- Information on the damages that occurred (e.g., costs of recovery, property damage, and lives lost) to the extent practicable.
- Level of severity (i.e., flood depth or extent, wind speeds, earthquake intensity, etc.).
- Duration of event.
- Date of occurrence.
- Sources of information used or consulted for assembling a history of past occurrences.

When appropriate, the hazard analysis *should* also identify on a map the areas affected by each identified hazard. Additionally, a composite map (i.e., a map showing combined information from different thematic map layers) *should* be provided for hazards with a recognizable geographic boundary (i.e., hazards that are known to occur in particular areas of the jurisdiction, such as floods, coastal storms, wildfires, tsunamis, and landslides).

The characterization of hazards *should* describe the conditions, such as topography, soil characteristics, meteorological conditions, etc., in the area that may exacerbate or mitigate the potential effects of hazards.

The hazard analysis *should* be detailed enough to allow identification of the areas of the jurisdiction that are most severely affected by each hazard.

The plan *should* describe the analysis or sources used to determine the probability, likelihood, or frequency of occurrence as well as the severity or magnitude of future hazard events.

The plan *should* note any data limitations and identify and include in the mitigation strategy actions for obtaining the data to complete and improve future risk analysis efforts.

Special Considerations: Although not required by the Rule, a discussion of repetitive flood loss properties is appropriate to include in the plan. A repetitive loss property is a property that is currently insured through the NFIP, for which two or more losses (occurring more than 10 days apart) of at least $1,000 each have been paid within any 10-year period since 1978.

Resource: For more information on profiling hazards, see:

- ✓ *Understanding Your Risks* (FEMA 386-2), Step 2.
- ✓ HAZUS-MH at www.fema.gov/HAZUS/.
- ✓ Firewise at www.firewise.org.

Examples:

Original Submittal:

Sandy County is subject to riverine and flash flooding throughout large sections of the County. There have been several flooding incidents in the County. A severe flash flood occurred in June of 2000, and the Mud River reached 100-year flood levels in 1996.

Many factors within the County affect the type and severity of flooding, including the mountains, the location of development, the amount of snow and rainfall received, and the large, wide floodplain of the Mud River.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(2)(i)		▪ The hazard location is very general. ▪ There is no information on the hazard extent and probability of future events. ▪ A limited history of flooding was discussed. ▪ While not required, the County did not provide a map identifying areas affected by flooding.

Required Revisions:

For a "Satisfactory" score, the plan must describe the floodplain boundaries and the magnitude or severity of floods; include the probability for floods; and expand on the history of flooding. While the Rule does not require a map, it is useful to provide one with the identified hazard areas.

N S

Revised Submittal:

Sandy County is subject to riverine and flash flooding. ~~throughout large sections of the County~~. ~~There have been several flooding incidents in the County. A severe flash flood occurred in June of 2000, and the Mud River reached 100-year flood levels in 1996.~~ **The County Planning Department has reviewed the County's Flood Insurance Rate Maps (FIRMs) and Flood Insurance Study (FIS), and has worked with the local college to compile a profile of the flooding hazard in the County. The college provided support by completing research on flooding history in the County and entering the data into a GIS database. The GIS program shows the extent and areas affected by past flooding, and is overlain by County tax maps. This, along with the County's FIRMs and FIS, provides a clear picture of areas and structures most vulnerable to flooding *(see attached Map X.X, Areas of Sandy County Subject to Flood Hazards).***

<u>Riverine Flooding</u>

The central and eastern sections of the County are subject to riverine flooding. This is usually caused by extensive rainfall over a period of several days and can be worsened by snowmelt conditions. The Mud River located in Sandy County has flooded 12 times in the past 75 years; one was a 500-year flood, four were 100-year floods, three were 50-year floods, and four were 10-year floods. The 500-year flood occurred in 1952 and resulted in significant damage to Iron City and Silvertown. The most recent flood was a 100-year flood that occurred in 1996.

The probability of occurrence is expressed as the percent chance that a flood of a specific magnitude will occur in any given year. Table 2 summarizes the associated chance of occurrence for each type of flood the County may experience.

Table 2: Flood Probability of Occurrence

Flood Return Intervals	Chance of Occurrence in Any Given Year
10-Year	10%
50-Year	2%
100-Year	1%
500-Year	0.2%

~~Many factors within the County affect the type and severity of flooding, including the mountains, the location of development, the amount of snow and rainfall received, and the large, wide floodplain of the Mud River.~~

The area surrounding the Mud River is subject to flood damage because of the large amounts of rainfall and snowmelt it receives; the wide, flat floodplain; and the large numbers of structures located in the floodplain.

Flash Flooding

The western section of the County is very mountainous with steep slopes and stream valleys. This area receives several large thunderstorms per year that cause intense rainfall for short periods of time, resulting in water flowing down from the mountains, collecting in, and sometimes overtopping the valley streams. There have also been issues with the maintenance and clearing of drainage channels in this area that have resulted in obstructions restricting the flow of water during a storm. Although this area is fairly rural, many of the residents live in the 100-year floodplain because of the steep slopes. These conditions make response and evacuation operations very difficult, adversely affecting the safety of residents.

The most recent incident occurred in June of 2000. A severe thunderstorm produced significant localized rainfall. Two small bridges were washed out and many County residents were stranded. Although no one was injured, several structures were flooded and many residents were cut off from the rest of the County. This event was estimated at a 50-year flood frequency return interval.

ASSESSING VULNERABILITY: OVERVIEW

Requirement §201.6(c)(2)(ii):	[The risk assessment shall include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.
Explanation:	An overview of the community's vulnerability assessment is a summary of the hazard's impact to the community's vulnerable structures. This summary **shall** include, by type of hazard, a general description of the types of structures (e.g., buildings, infrastructure, and critical facilities) affected by the hazard. The overview **shall** also include a general description of the extent of the hazard's impact to the vulnerable structures. This information can be presented in terms of dollar value or percentages of damage. The Plan *should* note any data limitations and identify and include in the mitigation strategy actions for obtaining the data necessary to complete and improve future vulnerability assessments.
Special Considerations:	While the Rule does not require a discussion about the number of people or special populations at risk, such as the elderly, disabled, or others with special needs, FEMA recommends their consideration in the risk assessment to enable the development of appropriate actions to assist such populations during or after a disaster.
Resource:	For a discussion on preparing a vulnerability assessment, see: ✓ *Understanding Your Risks* (FEMA 386-2), Step 3, Worksheet #3a Inventory Assets. ✓ HAZUS-MH at www.fema.gov/HAZUS/. ✓ Firewise at www.firewise.org.

Examples:

N/S

Original Submittal:

Lake County is mostly susceptible to flooding and fire hazards. Based on Planning Department data, the structures at risk are those located within the 100-year and 500-year floodplain areas, which are the communities of Rocky Lake and Grandview. Structures susceptible to damage from flooding include five storm shelters, one hospital, the local communication utility company, one wastewater treatment plant, and an old industrial site containing hazardous waste.

The structures that could be damaged by fire include one school and one hospital located in the rural, wooded portion of the County.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(2)(ii)		▪ The plan did not describe the potential damages by hazard.

Required Revisions:

The plan must provide information on the potential impact of floods and wildfires. This information may be provided in general terms and estimates to give an idea of how significant the hazard is.

N S

Revised Submittal:

Lake County is mostly susceptible to flooding and fire hazards. Based on Planning Department data, the structures at risk are those located within the 100-year and 500-year floodplain areas, which are the communities of Rocky Lake and Grandview. **It is estimated that a total of 30 homes are at risk, which is 16% of the residential structures in the County.** Structures susceptible to damage from flooding include five storm shelters, one hospital, the local communication utility company, one wastewater treatment plant, and an old industrial site containing hazardous waste. **These structures are considered critical facilities for the County, and structural flood damages for these sites could cost up to $1 million for a 100-year flood. However, when considering the impact of loss of service provided by these facilities, the damages can exceed $5 million.**

The structures that could be damaged by fire include one school and one hospital located in the rural, wooded portion of the County. **However, these two sites provide shelter and emergency health services to the County as well. Fire damages to these structures could greatly impact emergency response operations and result in potential loss of lives and damages of approximately of $2 million.**

ASSESSING VULNERABILITY: IDENTIFYING STRUCTURES

Requirement §201.6(c)(2)(ii)(A):	The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas … .
Explanation:	This information list *should* be based on an inventory of existing and proposed buildings, infrastructure, and critical facilities (structures) located within identified hazard area boundaries. Buildings can include residential, commercial, industrial, and municipal buildings; infrastructure, such as roadways, water utilities, and communication systems; and critical facilities, such as shelters and hospitals. The structure description can also include construction characteristics (e.g., year built). The community *should* determine how best to indicate structures that are vulnerable to more than one hazard. The community *should* determine how far into the future they wish to go in considering proposed buildings, infrastructure, and critical facilities, including planned and approved development. The information on future structures may be based on their comprehensive plan or land use plan. The Plan *should* document the process and sources used to identify existing and future structures. If data are not readily available for buildings and infrastructure, the Plan *should* provide information on critical facilities within the identified hazard areas and identify the collection of data for buildings and infrastructure as an action item in the mitigation strategy.
Special Considerations:	While not required by the Rule, structures located within areas that have repeatedly flooded *should* be inventoried and information collected on past flood insurance claims. The plan *should* describe the repetitive loss neighborhoods without identifying specific properties.
Resource:	For a discussion on identifying vulnerable structures and preparing a detailed inventory, see: ✓ *Understanding Your Risks* (FEMA 386-2), Step 3, Worksheets #3a and #3b Inventory Assets. ✓ HAZUS-MH at www.fema.gov/HAZUS/. ✓ Firewise at www.firewise.org.

Examples:

Original Submittal:

The Hazard Mitigation Plan for Rocky County identified critical facilities located in the County and the hazards to which these facilities are susceptible. A critical facility is defined as a facility in either the public or private sector that provides essential products and services to the general

public, is otherwise necessary to preserve the welfare and quality of life in the County, or fulfills important public safety, emergency response, and/or disaster recovery functions.

The critical facilities identified in the County are storm shelters; hospitals and other health care facilities; gas, electric, and communication utilities; water and wastewater treatment plants; hazardous waste sites; and schools (see attached Map XX - Critical Facilities and Hazard Vulnerability).

The Rocky County Planning Department used GIS and other modeling tools to map the County's critical facilities and determine which are most likely to be affected by hazards. The two hazards most likely to impact the County are flooding and wildfires. The analysis revealed the following:

Flooding Hazard: A 100-year flood would have an impact on five storm shelters, one hospital, one elderly housing project, the local communication utility company, one wastewater treatment plant, and an old industrial site containing hazardous waste.

Fire Hazard: Brush fires could have an impact on one school and one hospital located in the rural, wooded portion of the County.

In addition to critical facilities, the County contains at risk populations that were factored into a vulnerability assessment. These include a relatively large population of elderly residents with limited mobility.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(2)(ii)(A)		▪ The plan did not discuss future vulnerability.

Required Revisions:

For a "Satisfactory" score, the vulnerability assessment must address future planned development. Although not a requirement, it would be useful for the plan to address the presence of any special populations and describe how the critical facilities were identified.

Revised Submittal:

The Hazard Mitigation Plan for Rocky County identified critical facilities located in the County and the hazards to which these facilities are susceptible. A critical facility is defined as a facility in either the public or private sector that provides essential products and services to the general public, is otherwise necessary to preserve the welfare and quality of life in the County, or fulfills important public safety, emergency response, and/or

disaster recovery functions.

The critical facilities identified in the County are storm shelters; hospitals and other health care facilities; gas, electric, and communication utilities; water and wastewater treatment plants; hazardous waste sites; and schools (see attached Map XX - Critical Facilities and Hazard Vulnerability).

The Rocky County Planning Department used GIS and other modeling tools to map the County's critical facilities and determine which are most likely to be affected by hazards. The two hazards most likely to impact the County are flooding and wildfires. The analysis revealed the following:

Flooding Hazard: A 100-year flood would have an impact on five storm shelters, one hospital, one elderly housing project, the local communication utility company, one wastewater treatment plant, and an old industrial site containing hazardous waste.

Fire Hazard: Brush fires could have an impact on one school and one hospital located in the rural, wooded portion of the County.

In addition to critical facilities, the County contains at risk populations that were factored into a vulnerability assessment. These include a relatively large population of elderly residents with limited mobility.

An analysis of the County Comprehensive Plan indicates that there is a slight but constant increase in residents expected over the next 20 years. By comparing the existing land use map and the land use plan map found in Appendix XX, it is apparent that most of the residential development is expected to occur in the already developed areas outside of the 100-year floodplain. Some areas of future growth are in the urban-wildland interface. The Comprehensive Plan identifies two future planned developments of 100 units each near the Old Growth National Forest.

ASSESSING VULNERABILITY: ESTIMATING POTENTIAL LOSSES

Requirement §201.6(c)(2)(ii)(B):	[The plan should describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate … .
Explanation:	Describing vulnerability in terms of dollar losses provides the community and the State with a common framework in which to measure the effects of hazards on vulnerable structures. The Plan *should* include an estimate of losses for the identified vulnerable structures. An estimate *should* be provided for each hazard, and *should* include, when resources permit, structure, contents, and function losses to present a full picture of the total loss for each asset. Where data are limited, the planning team can select the most likely event for each hazard and estimate the losses for that event. In this way, the planning team can identify parts of the jurisdiction that could suffer the greatest losses. The methodology used to determine losses *should* also be provided. The Plan *should* note any data limitations and identify and include in the implementation strategy actions for obtaining the data to complete and improve future risk assessment analysis efforts.
Special Considerations:	Use of maps is not required by the Rule. However, a composite loss map depicting high potential loss areas will help the community develop its mitigation priorities based on residential and economic loss potential.
Resource:	For a step-by-step method for estimating losses, see: ✓ *Understanding Your Risks* (FEMA 386-2), Step 4. ✓ HAZUS-MH at www.fema.govj/HAZUS/. For information regarding U.S. Forest Service guidelines see: ✓ www.fs.fed.us. For further information regarding wildland/urban interface see: ✓ Firewise at www.firewise.org.

Examples:

N/S

Original Submittal:

The Rocky County Planning Department has used GIS modeling, field inspections, and historical data to estimate the potential dollar losses if the County were to experience flooding and wildfires, the two most likely hazards to occur in the County. The vulnerable structures were identified earlier in the planning process.

The County will have an estimated $10 million of damage during a major flood, and an estimated $3 million of damage in a severe wildfire.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(2)(ii)(B)		▪ The plan did not specify which structures would be damaged, and by what hazard. ▪ The costs were not broken down for each type of structure likely to be damaged. ▪ The plan does not describe the methodology used.

Required Revisions:

To receive a "Satisfactory" score, the plan must include an estimate for each structure likely to be damaged and the methodology used. Although not a requirement, a map showing the structures likely to be damaged, along with estimates of damage, would be helpful.

N S

Revised Submittal:

The Rocky County Planning Department has used GIS modeling, field inspections, and historical data to estimate the potential dollar losses if the County were to experience flooding and wildfires, the two most likely hazards to occur in the County. The vulnerable structures were identified earlier in the planning process.

The County will have a more detailed inventory of buildings and facilities when it completes its update of the County Asset Database. Further, historical data regarding erosion, debris buildup, substantial damage, and repetitive loss and flood high water marks can be plotted (see Table 2.1) once that data are complete. This information can then be added to GIS data sets for plotting on map products. From the flood estimation tables described on pages 4-12 and 4-15 in the FEMA document *Understanding Your Risks: Identifying Hazards and Estimating Losses* (FEMA 386-2), the County can plot loss estimation values and provide them for use for each political jurisdiction along with corresponding GIS map products. See the Mitigation Strategy section for implementation details.

Table 2.1: Infrastructure Flood Loss History Impacts					
Category	Erosion	Debris	Substantial Damage	Repetitive Loss	High Water Mark
Residential					
Agriculture					
Banking/Financial					
Chemical					
Public Bldgs					
Public Health					
Telecom					
Transportation					

~~The County will have an estimated $10 million dollars damage during a major flood, and an estimated $3 million dollars damage in a severe wildfire.~~ **The County used the guidelines in *Understanding Your Risks* to develop a cost estimate for damages. The estimated costs are as follows:**

Potential flood losses:

Residential properties (including senior citizens home): $2.5 million
Local hospital: $3 million
Schools: $2 million
Communication utility company: $1 million
Waste water treatment plant: $1.5 million

See attached Map XX, Estimated Flood Losses by Location and Type of Structure.

In speaking with the State Forest Ranger area office, the County Planning Department can obtain valuable risk assessment data and historical loss data regarding wildland areas in the County. As with the plotting of infrastructure data described above, wildland-urban fire risk data can be plotted and added to GIS data sets for mapping wildfire risks. See the implementation details of the data gathering effort in the Mitigation Strategy section.

The planning team used the methodology for estimating wildfire damages found on pages 4-36 to 4-37 of *Understanding Your Risks* (FEMA 386-2). See Appendix XX for the Wildfire Hazard Rating Form completed for each jurisdiction. The following summarized the results of the loss estimate.

Potential Wildfire losses:

Residential properties: $1 million
Hospital: $1.5 million
Secondary school: $500,000

See attached Map XY, Estimated Wildfire Losses by Location and Type of Structure.

ASSESSING VULNERABILITY: ANALYZING DEVELOPMENT TRENDS

Requirement §201.6(c)(2)(ii)(C):	[The plan should describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

Explanation:

The plan *should* provide a general overview of land uses and types of development occurring within the community. This can include existing and proposed land uses as well as development densities in the identified hazard areas and any anticipated future changes. This information provides a basis for making decisions on the type of mitigation approaches to consider, and the locations in which these approaches should be applied. This information can also be used to influence decisions regarding future development in hazard areas. A land use map would be useful to depict the descriptive information.

The Plan *should* note any data limitations and identify and include in the mitigation strategy actions for obtaining the data necessary to complete and improve the risk assessment in the future.

Resource:

For more information on development trends, consult with your local or regional planning officials.

Examples:

N/S

Original Submittal:

Friendly County is centrally located in the State and is largely rural; the main land use is farming. Jasperville City is located along the northern border of the County along the Big River.

Other land uses within the County consist of: industrial and commercial areas, residential areas, park land and open space, and specialized land use designations (institutional, mixed-use).

The County has been dealing with some residential development pressure in the region surrounding Jasperville. Otherwise, the County does not expect any significant changes in land use or development pressure.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(2)(ii)(C)		▪ Although the plan lists the land uses it does not indicate whether there is any anticipated change in land uses that would increase vulnerability to hazards.

Required Revisions:

To receive a "Satisfactory" score, the plan must indicate if there are any planned land use changes, or anticipated development, particularly in or near hazard areas.

N S

Revised Submittal:

Friendly County is centrally located in the State and is largely rural; the main land use is farming. **The largest city,** Jasperville ~~City~~, is located along the northern border of the County along the Big River. Other land uses within the County consist of: industrial and commercial areas, **located in and around Jasperville**; residential areas, **located in the suburbs surrounding Jasperville**; park land and open space, **located largely in the eastern section of the County**; farmland, **which is a majority of the County**; and specialized land use designations (institutional, mixed-use) **located in the City**. **These are generally in conformance with current zoning and are expected to remain in the current use for the foreseeable future.**

~~The County has been dealing with some residential development pressure in the region surrounding Jasperville.~~ **The suburbs of Jasperville have recently undergone residential development pressure as several large companies have opened offices in the City within the past year, attracting new residents to the area. The County Planning Office has indicated that the residential development pressure surrounding Jasperville is the largest concern with respect to future land use decisions and hazard mitigation planning. The Big River floods periodically and many of the newly developing residential areas are located in close proximity to the Big River. The current County Comprehensive Plan shows future growth in these areas at a rate of 3% annually in the residential areas and 1% annually in the non-residential areas. The zoning of these areas allows this growth to occur with no zoning changes for the next 20 years, which is the horizon for the Comprehensive Plan.**

County Planners indicate that there is a current inventory of vacant or re-developable land that can accommodate the projected growth with no additional zoning changes, so the areas likely to experience growth are the areas now zoned for development. Table XXX shows the projected amount of growth by category and intensity of land use for the next 20 years and Map XXX shows the amount of land that corresponds to the growth. The areas of anticipated growth are those identified by County Planning Staff as the most likely to be developed in this planning horizon.

~~Otherwise, the County does not expect any significant changes in land use or development pressure.~~ **The remainder of the County is not expected to undergo development pressure, and the Planning Office does not anticipate any significant changes in land use.**

MULTI-JURISDICTIONAL RISK ASSESSMENT

Requirement §201.6(c)(2)(iii):	For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

Explanation: The multi-jurisdictional plan **must** present information for the general planning area as a whole as described in the previous paragraphs. However, where hazards and associated losses occur in only part of the planning area, this information **must** be attributed to the particular jurisdiction in which they occur. Further, where unique construction characteristics occur, they *should* be indicated on the plan so that appropriate mitigation actions are considered.

Resource: For more information on creating a detailed risk assessment, see:

- ✓ *Understanding Your Risks* (FEMA 386-2), Steps 1 – 4.
- ✓ HAZUS-MH at www.fema.govj/HAZUS/.
- ✓ Firewise at www.firewise.org.

Examples:

Original Submittal:

Rumble County is a large County centrally located in the State. Within the County, there are several municipalities. All of these jurisdictions contributed to the risk assessment analyses performed for the County Hazard Mitigation Plan (see preceding Section XX).

All jurisdictions within the County are subject to riverine flooding, which has been determined to be the greatest risk for the County.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(2)(iii)		▪ The plan does not indicate if and how each participating jurisdiction's risk varies from that of the overall County.

Required Revisions:

To receive a "Satisfactory" score, the plan must document if any particular jurisdictions are subject to additional risks or if they have unique situations that require special consideration.

N S

Revised Submittal:

Rumble County is a large County centrally located in the State. Within the County, there are several municipalities. All of these jurisdictions contributed to the risk assessment analyses performed for the County Hazard Mitigation Plan (see preceding Section XX).

~~All jurisdictions within the County are subject to riverine flooding, which has been determined to be the greatest risk for the County.~~

Riverine flooding was identified as the most significant risk to the County and is addressed in the Mitigation Plan. However, two jurisdictions within the County have unique situations that require additional mitigation actions. Separate risk assessments were performed for each jurisdiction.

Rocky Township has been recognized by the State Historic Preservation Office as being a Heritage Preservation and Tourism Area because of its distinct, historic character. The township's downtown appears much as it did in the early 1900's. However, the township has several threatened historic structures, some of which lie in the town's 100-year floodplain. One such structure is the Rocky Mining Company Shipping Office, which now serves as a museum chronicling the township's mining past. The elevation of the structure's first floor lies 5 ft. below the 100-year flood elevation.

Quartz City contains a nuclear power plant that supplies power to the entire County. This power plant presents additional risks due to terrorism or malfunction of the plant's safety controls. The increased security and radiation control actions identified in the Mitigation Plan are limited to Quartz City.

MITIGATION STRATEGY

§201.6(c)(3) of the Rule requires jurisdictions to develop a mitigation strategy. Specifically, the Local Hazard Mitigation Plan must "include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools." This entails the development of goals from which specific mitigation actions and projects will be derived. These goals and actions should be based on the jurisdiction's existing capabilities and its ability to enhance these capabilities. All mitigation actions must be prioritized according to a cost-benefit review, with a focus on how effective the actions are expected to be with respect to their cost. For multi-jurisdictional plans, each jurisdiction must show the specific actions they will undertake.

This section includes the following four subsections:

- Local Hazard Mitigation Goals
- Identification and Analysis of Mitigation Actions
- Implementation of Mitigation Actions
- Multi-jurisdictional Mitigation Actions

LOCAL HAZARD MITIGATION GOALS

Requirement §201.6(c)(3)(i):	[The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.
Explanation:	The community's hazard reduction goals, as described in the plan, along with any corresponding objectives, guide the development and implementation of mitigation actions. This section **shall** list the goals intended to reduce or avoid the effects of the identified hazards addressed in the risk assessment. The description *should* include how goals were developed. The goals could be developed early in the planning process and refined based on the risk assessment findings, or developed entirely after the risk assessment is completed. They *should* also be compatible with the goals of the community as expressed in other community plan documents. Although the Rule does not require a description of objectives, communities are highly encouraged to include objectives developed to achieve the goals so that reviewers understand the connection between goals, objectives, and activities. The goals and objectives *should*: ▪ Be based on the findings of the local and State risk assessments; and ▪ Represent a long-term vision for hazard reduction or enhancement of mitigation capabilities.
Resource:	For more information on developing local mitigation goals and objectives, see: ▪ *Developing the Mitigation Plan* (FEMA 386-3), Step 1.
Special Considerations:	**Goals** are general guidelines that explain what you want to achieve. They are usually long-term and represent global visions, such as "eliminate flood damage." **Objectives** define strategies or implementation steps to attain the identified goals. Unlike goals, objectives are specific, measurable, and may have a defined completion date. Objectives are more specific, such as "adopt a zoning ordinance prohibiting new development in the floodplain." (From *Developing the Mitigation Plan* [FEMA 386-3], Step 1.)

Examples:

Original Submittal:

The Rumble County Hazard Mitigation Planning Committee identified the following goal to guide the implementation of the County's hazard mitigation strategies:

- Minimize future damage due to hazards.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(3)(i)		▪ While the plan includes a goal, it is very general and does not reflect the findings of the risk assessment. ▪ Although not required, the plan does not mention objectives that will be used to achieve the goals.

Required Revisions:

To receive a "Satisfactory" score, the plan must describe goals to reduce or avoid losses from the identified hazards. Additionally, it would be helpful to include the objectives that will be used to achieve the goals.

Revised Submittal:

The Rumble County Hazard Mitigation Planning Committee ~~*identified the following goal to guide the implementation of the County's hazard mitigation strategies.*~~ **held a 2-day workshop to review and analyze the risk assessment studies that were performed for the County. The Committee developed goals and objectives based on the risk assessment studies and selected those that were determined to be of greatest benefit in hazard reduction to the County. The goals and objectives are as follows:**

~~▪ Minimize future damage due to hazards.~~

- **Goal 1: Reduce flood damage in the County.**
  - **Objective 1.1**: Minimize future damage due to flooding of the Big River.
- **Goal 2: Reduce economic impact of droughts.**
  - **Objective 2.1:** Minimize damage to local crops due to drought situations.
- **Goal 3: Reduce threat of contamination from the nuclear power plant.**
  - **Objective 3.1:** Maintain the safe operation of the nuclear power plant located in the County.

IDENTIFICATION AND ANALYSIS OF MITIGATION ACTIONS

Requirement §201.6(c)(3)(ii):	[The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.
Explanation:	The local jurisdiction **shall** list potential loss reduction actions it has identified in its planning process and evaluate various actions that achieve the community's goals and objectives to reduce or avoid the effects of the identified hazards. Mitigation actions **shall** address **existing** and **new** buildings and infrastructure. Not all of the mitigation actions identified may ultimately be included in the community's plan due to limited capabilities, prohibitive costs, low benefit/cost ratio, or other concerns. The process by which the community decides on particular mitigation actions *should* be described. This description can include who participated in the evaluation and selection of actions. The information will also be valuable as part of the alternative analysis for the National Environmental Policy Act (NEPA) review required if projects are Federally funded.
Special Considerations:	While the Rule does not require a discussion of capabilities, FEMA recommends that jurisdictions, as part of this section, assess their own existing capabilities to implement mitigation actions. This assessment *should* include a discussion of existing mitigation activities in the community, existing regulatory standards, projects that have already been planned, integration with comprehensive planning and capital improvement programs, etc., as well as the jurisdiction's ability to expand on and improve these existing tools.
Resource:	For more information on identifying and evaluating mitigation actions and preparing a capability assessment, see: ✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 2, Worksheet #1 Identify Alternative Mitigation Actions, Job Aid #1: Alternative Mitigation Actions by Hazard, Worksheet #2 State Mitigation Capability Assessment, Worksheet #3 Local Mitigation Capability Assessment, Job Aid #2: Local Hazard Mitigation Capabilities, and Worksheet #4 Evaluate Alternative Mitigation Actions. ✓ *Integrating Manmade Hazards into Mitigation Planning* (FEMA 386-7), Phase 3. ✓ Mitigation Resources for Success CD (FEMA 372). ✓ Mitigation Success Stories and Case Studies at www.fema.gov/fima/success.shtm. ✓ Rebuilding for a More Sustainable Future: An Operational Framework (FEMA 365). ✓ The Natural Hazards Center at www.colorado.edu/hazards.

- ✓ Flood mitigation success stories from the Association of State Floodplain Managers at www.floods.org.

Examples:

Original Submittal:

Rumble County has identified a number of hazard mitigation actions and projects. The Planning Committee has selected the following actions for Rumble County:

- Revise the County Ordinance to prohibit development in the floodway.
- Work with property owners to implement deed restrictions for open lots/vacant properties along the Big River to prevent development.
- Elevate or floodproof structures.
- Develop water-rationing actions.
- Update radiation safety protocols at the nuclear power plant.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(3)(ii)		▪ The plan did not describe whether a range of various actions were considered.

Required Revisions:

To receive a "Satisfactory" score, the plan must describe the approach or analysis used for evaluating a range of actions.

Revised Submittal:

Rumble County has identified a number of hazard mitigation actions and projects. The Planning Committee**, with input from local government agencies, the local college, and residents,** has selected the following actions **as the most beneficial** for Rumble County**. These actions are listed following the goals and objectives. What follows are the most vulnerable areas identified in the risk assessment and the highest priority mitigation actions identified for those areas.**

- ~~Revise the County Ordinance to prohibit development in the floodway.~~
- ~~Work with property owners to implement deed restrictions for open lots/vacant properties along the Big River to prevent development.~~
- ~~Elevate or floodproof structures.~~

- ~~Develop water-rationing actions.~~
- ~~Update radiation safety protocols at the nuclear power plant.~~
- **Eastern Neighborhood: Located along the Big River and prone to overbank flooding. The Planning Committee recommends embarking on an elevation and floodproofing program, amending the County Ordinance to prohibit development in the Big River floodway, and working with property owners to turn deed restrictions for open lots/vacant properties along the Big River into deed restricted open space.**
- **Quartz City lies within 25 miles of the nuclear power plant. The Planning Committee recommends the creation of radiation safety protocols to be used in case of an emergency at the nuclear power plant and education of the community on the use of these protocols.**
- **All of Rumble County is susceptible to drought. The Planning Committee recommends the development of water-rationing actions that will be implemented during a drought situation.**

The list below documents the steps we followed in identifying and evaluating mitigation actions. Appendix XX contains a description of actions and their pros and cons by hazard.

- **We checked the library of *Developing the Mitigation Plan* (FEMA 386-3) to find sources of mitigation success stories.**
- **We sought the opinions of residents and State and local officials.**
- **We reviewed the State capability assessment in the State Hazard Mitigation Plan.**
- **We conducted a local capability analysis using the worksheets in *Developing the Mitigation Plan* (FEMA 386-3) to ascertain what actions could most readily be accomplished by existing programs, plans, personnel, and funds.**

The following are the most appropriate actions by goal:

- **Goal 1**: Reduce flood damage in the County.
    - **Objective 1.1**: Minimize future damage due to flooding of the Big River.
        - **Action 1.1.1:** Place a restrictive clause in the County Ordinance that will prohibit development in the Big River floodway.

- **Action 1.1.2:** Work with existing floodplain residents to elevate or floodproof their structures, including obtaining funding assistance and technical guidance.
- **Action 1.1.3:** Work with property owners to implement deed restrictions for open lots/vacant properties along the Big River to prevent development.

- **Goal 2:** Reduce economic impact of droughts.
  - **Objective 2.1:** Minimize damage to local crops due to drought situations.
    - **Action 2.2.1:** Develop water-rationing actions that will be implemented during a drought situation.
    - **Action 2.2.2:** Educate residents on the benefits of conserving water at all times, not just during a drought.
    - **Action 2.2.3:** Work with local farmers to investigate the use of more drought-resistant crops.
- **Goal 3:** Reduce the threat of contamination from the nuclear power plant.
  - **Objective 3.1:** Maintain the safe operation of the nuclear power plant located in the County.
    - **Action 3.3.1:** Work with power plant administrators to increase security actions necessary to prevent a terrorist attack.
    - **Action 3.3.2:** Develop radiation safety protocols to be used in case of an emergency and educate the community on the use of these protocols.
    - **Action 3.3.3:** Work with power plant safety inspectors to ensure that the power plant is meeting or exceeding all safety requirements and develop a plan for enforcing these requirements if necessary.
    - **Action 3.3.4:** Conduct a local public relations campaign to educate residents about the power plant, clearly delineating real threats from imagined.

IMPLEMENTATION OF MITIGATION ACTIONS

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.

Explanation:

After outlining the mitigation actions to be included in the mitigation strategy, the local jurisdiction **shall** describe the method for prioritizing the order in which actions will be implemented. Considerations that may be used to prioritize actions include: social impact, technical feasibility, administrative capabilities, and political and legal effects, as well as environmental issues.

When prioritizing mitigation actions, local jurisdictions **shall** consider the benefits that would result from the mitigation actions (including projects) versus the cost of those actions. Note that the Rule **does not require** a cost-benefit analysis for actions. However, an economic evaluation is essential for selecting one or more actions from among many competing ones. This (and other considerations) *should* be debated and discussed as part of the planning team's and/or larger community's decision-making process. A possible result of these local discussions *could* be the decision to complete a formal cost-benefit evaluation of the various mitigation approaches that are technically appropriate for the situation. However, this is not required to be included in the plan. The requirement of 44 CFR 201.6 (c)(3)(iii) is met as long as the economic considerations are summarized in the plan as part of the community's analysis of "the comprehensive range of specific mitigation actions and projects being considered … ." Among ways to address this requirement are:

- Assessing the economic impact of one action compared to another.
- Showing how one type of action costs more than another to achieve the same benefit.
- Showing that funding is available for one type of action but not another.
- Demonstrating that the economic goals of your community are better served by one action instead of another.

This section **shall** also include how actions will be implemented and administered. The plan **shall** include the agency or personnel responsible for carrying out the actions, the funding sources, and the implementation timeline. This section can also include a cost estimate or budget for each action, when available.

Resource: For a detailed description of the development of the action plan, see:

- ✓ *Developing the Mitigation Plan* (FEMA 386-3), Step 3.
- ✓ *Mitigation Benefit Cost Analysis (BCA) Toolkit Compact Disc (CD)* – this CD includes all of the FEMA BCA software, technical manuals, BCA training course documentation, and other supporting material and BCA guidance. Copies can be obtained by calling FEMA's toll-free BC Hotline at 866.222.3580.

Examples:

Original Submittal:

The City of Sandytown has identified several hazard mitigation actions to be included in the Hazard Mitigation Plan. These actions are as follows:

Table 3: Priority Actions

Hazard	Action	Priority
Flooding	Acquire and relocate flood-prone structures and repetitive loss properties.	**High**
	Preserve and expand open space along the river.	**Medium**
Landslides	Determine best management practices (BMPs) regarding slope excavation, drainage conveyance, and grading practices that reduce the risk of landslides.	**High**
	Incorporate BMP findings into City ordinance.	**High**
Tornado	Study shelter design, and reinforcement and anchoring of manufactured homes. Disseminate the information to residents.	**Low**
	Provide funding to residents to help them comply with the above recommendations.	**Low**

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(3)(iii)		▪ The plan does not describe how actions are prioritized. ▪ The plan does not indicate the responsible party, funding sources, and timeframe.

Required Revisions:

The plan must describe how the mitigation actions are prioritized. The agencies responsible for implementation of the projects must be identified, along with the respective funding sources and implementation timeframe.

N S

Revised Submittal:

The City of Sandytown has identified several hazard mitigation actions to be included in the Hazard Mitigation Plan. ~~These actions are as follows:~~ **Table 3: Priority Actions lists actions by hazard. Table 4: Implementation Strategy contains these actions, along with the responsible agency, the funding source, and implementation timeframe.**

The Mitigation Planning Team prioritized the actions using the STAPLE+E criteria, a planning tool used to evaluate alternative actions. The following table explains the STAPLE+E criteria.

STAPLE+E	Criteria Explanation
S – Social	**Mitigation actions are acceptable to the community if they do not adversely affect a particular segment of the population, do not cause relocation of lower income people, and if they are compatible with the community's social and cultural values.**
T – Technical	**Mitigation actions are technically most effective if they provide long-term reduction of losses and have minimal secondary adverse impacts.**
A – Administrative	**Mitigation actions are easier to implement if the jurisdiction has the necessary staffing and funding.**
P – Political	**Mitigation actions can truly be successful if all stakeholders have been offered an opportunity to participate in the planning process and if there is public support for the action.**
L – Legal	**It is critical that the jurisdiction or implementing agency have the legal authority to implement and enforce a mitigation action.**
E – Economic	**Budget constraints can significantly deter the implementation of mitigation actions. Hence, it is important to evaluate whether an action is cost-effective, as determined by a cost benefit review, and possible to fund.**
E – Environmental	**Sustainable mitigation actions that do not have an adverse effect on the environment, that comply with Federal, State, and local environmental regulations, and that are consistent with the community's environmental goals, have mitigation benefits while being environmentally sound.**

Each team member had an equal number of votes to use toward the actions that met the criteria best, based on their knowledge and

expertise. The mitigation actions with highest priority were the most cost effective and most compatible with the communities' social and cultural values.

As a high priority, we selected the action "Determine best management practices (BMPs) regarding slope excavation, drainage conveyance, and grading practices that reduce the risk of landslides" for a number of reasons. First, amending the ordinance can be done with existing staff, with little extra expense, and relatively quickly. Second, these BMPs can make new construction much less susceptible to landslides and can also be used to improve the site conditions of existing construction; the cost is just a fraction of what engineering solutions or structural retrofits would cost. A summary for the other priority actions selected is included in Appendix XX.

Table 3: Priority Actions

Hazard	Action	Priority
Flooding	Acquire and relocate flood-prone structures and repetitive loss properties.	**High**
	Preserve and expand open space along the river.	**Medium**
Landslides	Determine best management practices (BMPs) regarding slope excavation, drainage conveyance, and grading practices that reduce the risk of landslides.	**High**
	Incorporate BMP findings into City ordinance.	**High**
Tornado	Study shelter design, and reinforcement and anchoring of manufactured homes. Disseminate the information to residents.	**Low**
	Provide funding to residents to help them comply with the above recommendations.	**Low**

Table 4: Implementation Strategy

Action/Priority	Responsible Agency	Funding and Timeframe/ Deadline
Determine best management practices (BMPs) regarding slope excavation, drainage conveyance, and grading practices that reduce the risk of landslides. **(HIGH)**	**City of Sandytown Department of Planning and Department of the Environment**	▪ **Existing staff** ▪ **Fall 2004 – Spring 2005**
Acquire and relocate flood-prone structures and repetitive loss properties. **(HIGH)**	**City of Sandytown Department of Planning, Department of Environmental Protection, Legal Department**	▪ **PDM and HMGP Grants** ▪ **Fall 2004 – Fall 2009**
Incorporate BMP findings into City ordinance. **(HIGH)**	**City of Sandytown Department of Planning, City Council**	▪ **Existing staff** ▪ **Spring 2005 – Fall 2005**
Preserve and expand open space along the river. **(MEDIUM)**	**City of Sandytown Department of Planning and Department of the Environment**	▪ **Green Fund and existing staff** ▪ **Ongoing**
Study shelter design, and reinforcement and anchoring of manufactured homes. Disseminate the information to residents. **(LOW)**	**City of Sandytown Department of Planning**	▪ **Capital Improvement Funding** ▪ **Winter 2005 – Summer 2006**
Provide funding to residents to help them comply with the above recommendations. **(LOW)**	**City of Sandytown Mayor and City Council**	▪ **Special Assistance Program** ▪ **Ongoing**

MULTI-JURISDICTIONAL MITIGATION ACTIONS

Requirement §201.6(c)(3)(iv):	For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

Explanation: The multi-jurisdictional plan **must** contain a section that links the proposed mitigation actions to the applicable jurisdictions. Any jurisdiction within the planning area requesting approval or credit for the Mitigation Plan **must** be able to point to at least one specific action to be pursued. Actions by individual jurisdictions may be part of or contribute to an area-wide mitigation action. The scope of this action may be entirely within the jurisdiction or may be part of a larger action involving some or all of the other jurisdictions covered in the plan.

Resource: For more information on the development of the action plan, see:

- ✓ *Developing the Mitigation Plan* (386-3), Step 3.

Examples:

N/S

Original Submittal:

Rumble County's Mitigation Plan encompasses several jurisdictions. Strategies for hazard mitigation within the County were identified to reduce overall damage in the County. These activities will be implemented by the County and participating jurisdictions.

Action	Timeframe / Deadline
Place a restrictive clause in the County Ordinance that will prohibit development in the Big River floodway.	Fall 2004
Work with existing floodplain residents to elevate or floodproof their structures (especially historic structures), including obtaining funding assistance and technical guidance.	Spring 2005 through Spring 2007
Develop water-rationing actions that will be implemented during a drought situation.	Spring 2004 through Winter 2004
Develop radiation safety protocols to be used in case of an emergency and educate the community on the use of these protocols.	Fall 2004

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(3)(iv)		▪ The plan does not identify which actions apply to each jurisdiction. ▪ The plan does not indicate who will be responsible for implementing the actions or the funding source.

Required Revisions:

For a "Satisfactory" score, the plan must list specific actions by jurisdiction, the responsible parties, and the funding sources.

N S

Revised Submittal:

Rumble County's Mitigation Plan encompasses several jurisdictions. Strategies for hazard mitigation within the County were identified to reduce overall damage in the County. ~~These activities will be implemented by the County and the participating jurisdictions.~~ **Although these actions are aimed at reducing overall damage in the County, each jurisdiction will be responsible for pursuing the actions that are relevant to that jurisdiction. The jurisdictions, along with the specific actions they will pursue, are listed as follows:**

Table 5: Implementation Strategy

Jurisdiction	Action	Responsible Agency	Funding Source and Timeframe/ Deadline
Rumble County	Place a restrictive clause in the County Ordinance that will prohibit development in the Big River floodway.	**Rumble County Planning Department**	▪ **Staff time** ▪ Fall 2004
Rocky Township	Work with existing floodplain residents to elevate or floodproof their structures (especially historic structures), including obtaining funding assistance and technical guidance.	**Rocky Township Department of Emergency Services, NFIP Coordinator**	▪ **PDM and HMGP Funding** ▪ Spring 2005 through Spring 2007
Rumble County	Develop water-rationing actions that will be implemented during a drought situation.	**Department of Environment, Rocky Township, Quartz City, and Rumble County**	▪ **Staff time** ▪ Spring 2004 through Winter 2004
Quartz City	Develop radiation safety protocols to be used in case of an emergency and educate the community on the use of these protocols.	**Quartz City, Department of Planning and Community Development**	▪ **Staff time** ▪ Fall 2004

PLAN MAINTENANCE PROCESS

§201.6(c)(4) requires a formal plan maintenance process to ensure that the Mitigation Plan remains an active and relevant document. The plan maintenance process must include a method and schedule for monitoring, evaluating, and updating the plan at least every five years. This section must also include an explanation of how local governments intend to incorporate their mitigation strategies into any existing planning mechanisms they have, such as comprehensive or capital improvement plans, or zoning and building codes. Lastly, this section requires that there be continued public participation throughout the plan maintenance process.

This section includes the following three subsections:

- Monitoring, Evaluating, and Updating the Plan
- Incorporation into Existing Planning Mechanisms
- Continued Public Involvement

MONITORING, EVALUATING, AND UPDATING THE PLAN

Requirement §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.
Explanation:	The local jurisdiction **shall** describe the how, when, and by whom the plan will be **monitored.** Monitoring may include periodic reports by agencies involved in implementing projects or activities; site visits, phone calls, and meetings conducted by the person responsible for overseeing the plan; and the preparation of an annual report that captures the highlights of the previously mentioned activities. The plan **shall** also include a description of how, when, and by whom the plan will be **evaluated**, and *should* include the criteria used to evaluate the plan. The evaluation *should* assess, among other things, whether: ▪ The goals and objectives address current and expected conditions. ▪ The nature, magnitude, and/or type of risks has changed. ▪ The current resources are appropriate for implementing the plan. ▪ There are implementation problems, such as technical, political, legal, or coordination issues with other agencies. ▪ The outcomes have occurred as expected. ▪ The agencies and other partners participated as originally proposed. The plan **shall** describe how, when, and by whom the plan will be **updated**. The Rule requires that the plan be updated within five years from the date of FEMA approval. FEMA recommends that the plan be reviewed and updated on an annual basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities.
Special Considerations:	If the plan also satisfies the CRS requirements, the flood section may need to be updated more frequently than every five years. States may also have additional requirements. Consult with your FEMA Regional Office or State Hazard Mitigation Officer.
Resource:	For guidance on monitoring, evaluating, and updating the plan, see: ✓ *Bringing the Plan to Life* (FEMA 386-4), Steps 2 – 4.

Examples:

Original Submittal:

Rocky County has developed a method to ensure that regular monitoring, evaluation, and update of the Hazard Mitigation Plan occurs. The County Planning Department will be responsible for holding annual meetings with local agencies and other concerned parties to evaluate the Mitigation Plan. The Planning Department will then update the plan as necessary. If no changes are required, the County will give the State Hazard Mitigation Officer justification as to why no changes were deemed necessary.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(4)(i)		▪ The plan does not identify who will be monitoring the implementation of actions. ▪ It is not clear how the plan will be monitored. ▪ Local agencies and concerned parties to be included in the evaluation are not identified. ▪ This section does not describe how the plan will be evaluated.

Required Revisions:

The plan must clearly indicate how, when, and by whom the plan will be monitored, evaluated, and updated.

Revised Submittal:

~~Rocky County has developed a method to ensure that regular monitoring, evaluation, and update of the Hazard Mitigation Plan occurs. The County Planning Department will be responsible for holding annual meetings with local agencies and other concerned parties to evaluate the Mitigation Plan. The Planning Department will then update the plan as necessary. If no changes are required, the County will give the State Hazard Mitigation Officer justification as to why no changes were deemed necessary.~~

Rocky County has developed a method to ensure that an annual review and update of the Hazard Mitigation Plan occurs, although FEMA regulations only require an update every five years. The County has formed a Hazard Mitigation Plan Evaluation Committee that consists of members from local agencies and other concerned parties, including elected officials, the County Department of Natural Resources, the County Office of Economic Development, the County Office of Emergency Services, the County DOT, the non-profit Mud River Watershed Society, and representatives from the State University Geography Department. The County Planning Department

is responsible for contacting committee members and organizing the annual meeting. The meeting will be held in March of each year, and committee members will be responsible for monitoring and evaluating the progress of the mitigation strategies in the plan.

The committee will review each goal and objective to determine their relevance to changing situations in the County, as well as changes in State or Federal policy, and to ensure that they are addressing current and expected conditions. The committee will also review the risk assessment portion of the plan to determine if this information should be updated or modified. The parties responsible for the various implementation actions will report on the status of their projects and will include which implementation processes worked well, any difficulties encountered, how coordination efforts were proceeding, and which strategies should be revised.

The Planning Department will then have three months to update and make changes to the plan before submitting it to the Committee members and the State Hazard Mitigation Officer. If no changes are necessary, the State Hazard Mitigation Officer will be given a justification for this determination. Comments and recommendations offered by Committee members and the State Hazard Mitigation Officer will be incorporated into the plan.

In addition, Rocky County has a number of other plans that will consider and integrate the Hazard Mitigation Plan as they undergo their regular updates:

Comprehensive Plan—update due in 2005.

Capital Improvements Plan—update due in 2006.

Historic Preservation Plan—update due in 2007.

The Hazard Mitigation Plan will take into account any changes in these plans and incorporate the information accordingly in its next update.

INCORPORATION INTO EXISTING PLANNING MECHANISMS

Requirement §201.6(c)(4)(ii):	[The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

Explanation:

Jurisdictions **shall** indicate how mitigation recommendations will be incorporated into comprehensive plans, capital improvement plans, zoning and building codes, site reviews, permitting, job descriptions, staff training, and other planning tools, where such tools are the appropriate vehicles for implementation.

Communities that do not have a comprehensive plan, or other similar planning mechanisms, *should* explain how the mitigation recommendations would be implemented. Further, for certain mitigation actions that may use other means of implementation, these other tools *should* be described.

Resource:

For more information on incorporating hazard mitigation activities in other initiatives, see:

- ✓ *Getting Started* (FEMA 386-1), Step 2.

Examples:

N/S

Original Submittal:

Rocky County currently uses comprehensive land use planning, capital improvements planning, and building codes. After the County officially adopts the Hazard Mitigation Plan, these existing mechanisms will have hazard mitigation strategies incorporated into them. This will be done so that planning for hazard mitigation will become an essential part of all County decisions and policies.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(4)(ii)		▪ The plan does not state how planning for hazard mitigation will be incorporated into existing mechanisms, only that it will be done.

Required Revisions:

The plan must indicate how Mitigation Plan requirements will be incorporated into existing planning mechanisms.

N S

Revised Submittal:

~~Rocky County currently utilizes comprehensive land use planning, capital improvements planning, and building codes. After the County officially adopts the Hazard Mitigation Plan, these existing mechanisms will have hazard mitigation strategies incorporated into them. This will be done so that planning for hazard mitigation will become an essential part of all County decisions and policies.~~

The Hazard Mitigation Plan Evaluation Committee, which meets on an annual basis, will provide a mechanism for ensuring that the actions identified in the plans are incorporated into ongoing county planning activities.

Rocky County currently utilizes comprehensive land use planning, capital improvements planning, and building codes to guide and control development in the County. After the County officially adopts the Hazard Mitigation Plan, these existing mechanisms will have hazard mitigation strategies integrated into them.

After adoption of the Mitigation Plan, the County will require that local municipalities address hazards in their comprehensive plans and land use regulations. Specifically, one of the goals in the Mitigation Plan directs County and local governments to protect life and property from natural disasters and manmade hazards. The County Planning Department will conduct periodic reviews of the County's comprehensive plans and land use policies, analyze any plan amendments, and provide technical assistance to other local municipalities in implementing these requirements.

The County Building Department is responsible for administering the building codes in local municipalities. After the adoption of the Mitigation Plan, they will work with the State Building Code Office to make sure that the County adopts, and is enforcing, the minimum standards established in the new State Building Code. This is to ensure that life/safety criteria are met for new construction.

The capital improvement planning that occurs in the future will also contribute to the goals in the Hazard Mitigation Plan. The County Natural Resources Department will work with capital improvement planners to secure high-hazard areas for low risk uses.

Within six months of the formal adoption of the Mitigation Plan, the policies listed above will be incorporated into the process of existing planning mechanisms.

CONTINUED PUBLIC INVOLVEMENT

Requirement §201.6(c)(4)(iii):	[The plan maintenance process shall include a] discussion on how the community will continue public participation in the plan maintenance process.

Explanation: The plan **shall** describe what opportunities the broader public (i.e., stakeholders who are not part of the planning team) would have during the plan's periodic review to comment on the progress made to date and the proposed plan revisions. Plans *should* describe the mechanisms for keeping the public involved (e.g., holding strategic meetings, posting the proposed changes to the plan on the Web, etc.).

Resource: For more information on keeping the public involved, see:

- ✓ *Getting Started* (FEMA 386-1), Step 3.
- ✓ *Bringing the Plan to Life* (FEMA 386-4), Steps 2 and 3.

Examples:

N S

Original Submittal:

Rocky County is dedicated to involving the public directly in the continual reshaping and updating of the Hazard Mitigation Plan. The Hazard Mitigation Plan Evaluation Committee members are responsible for the annual review and update of the plan. Although they represent the public to some extent, the public will be able to directly comment on and provide feedback about the plan.

REVIEWER'S COMMENTS

RULE SECTION	LOCATION IN THE PLAN	REVIEWER'S COMMENTS
§201.6(c)(4)(iii)		▪ The plan does not provide details about how or when the public will provide comments.

Required Revisions:

The plan must describe opportunities for keeping the public involved.

N S

Revised Submittal:

Rocky County is dedicated to involving the public directly in the continual reshaping and updating of the Hazard Mitigation Plan. The Hazard Mitigation Plan Evaluation Committee members are responsible for the annual review and update of the plan. Although they represent the public

to some extent, the public will be able to directly comment on and provide feedback about the plan.

Copies of the plan will be catalogued and kept on hand at all of the public libraries in the County. The existence and location of these copies will be publicized in the monthly newsletter sent out by the County Chamber of Commerce. Contained in the plan is the address and phone number of County Planning Department Staff Member(s) responsible for keeping track of public comments on the plan.

In addition, copies of the plan and any proposed changes will be posted on the County Government Website. This site will also contain an email address and phone number to which people can direct their comments or concerns. A link to this site will also be provided on the local Sandy State College Department of Geography and Department of Urban Planning Web pages.

A public meeting will also be held after each annual Mitigation Plan Evaluation Committee meeting. This meeting will provide the public a forum for which they can express concerns, opinions, or ideas about the plan. The County Planning Department will publicize and host this meeting. Following the meeting, the evaluation committee will review the comments and make changes to the plan, as appropriate.

PART 4 – PLAN REVIEW CROSSWALKS

This section contains blank Plan Review Crosswalks for Standard State Hazard Mitigation Plans, Enhanced State Hazard Mitigation Plans, and Local Hazard Mitigation Plans. Plan writers and reviewers working on Standard State Hazard Mitigation Plans will need the Standard State Hazard Mitigation Plan Review Crosswalk. An Enhanced State Plan requires the Review Crosswalk for the Standard State Plan **and** the Enhanced State Hazard Mitigation Plan Review Crosswalk. Those working on Local Mitigation Plans will use the Local Hazard Mitigation Plan Review Crosswalk.

Each section of the Plan Review Crosswalk is introduced by language from the Rule, stating the plan requirements. The first column, headed "**Element**," breaks down the requirements into their individual provisions, rephrasing them as questions. The second column, headed "**Location in the Plan**," is for indicating where in the plan the element is addressed. The third column, headed "**Reviewer's Comments**," is for indicating whether or not the plan has addressed the requirement satisfactorily and any recommended required improvements.

Except for prerequisites, which are scored as "Not Met" or "Met," the reviewer will score each element as an N for "Needs Improvement" or S for "Satisfactory," checking off the appropriate box under "**Score.**" Any element that receives an N will result in an N summary score for the requirement as a whole. At the end of the plan review, reviewers can fill out the Plan Summary Worksheet to easily present the results on one page.

For ease of use or expanding the space available for comments, these crosswalks can be downloaded off the FEMA Mitigation Planning Web site.

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Instructions for Using the Plan Review Crosswalk for Review of Standard State Hazard Mitigation Plans

Attached is a Plan Review Crosswalk based on the ***Multi-Hazard Mitigation Planning Guidance Under the Disaster Mitigation Act of 2000***, published by FEMA, with revisions dated November 2006. This Plan Review Crosswalk is consistent with the *Disaster Mitigation Act of 2000* (P.L. 106-390), enacted October 30, 2000 and *44 CFR Part 201 – Mitigation Planning, Interim Final Rule* (the Rule), published February 26, 2002.

SCORING SYSTEM

N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Each requirement includes separate elements. All elements of a requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a summary score of "Satisfactory." A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing.

Optional matrices for assisting in the review of sections on profiling hazards and assessing vulnerability are found at the end of the Plan Review Crosswalk.

The example below illustrates how to fill in the Plan Review Crosswalk.

Example

Assessing Vulnerability by Jurisdiction

Requirement §201.4(c)(2)(ii): *[The State risk assessment **shall** include an] overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in local risk assessments … . The State **shall** describe vulnerability in terms of the jurisdictions most threatened by the identified hazards, and most vulnerable to damage and loss associated with hazard event.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan describe the State's vulnerability based on information from the local risk assessments?	Section III, pp. 12-28	The plan includes a description of local vulnerable structures. The plan presented a vulnerability summary by regions in the state. This information was collected from the approved plans on file.		✓
B. Does the plan present information on those jurisdictions that face the most risk?	Section III, pp. 30-36	The vulnerability description did not indicate which jurisdictions were the most vulnerable. **Required Revisions:** • Use the information provided in the summaries to determine which jurisdictions are most threatened by the identified hazards. • Identify which jurisdictions have suffered or are likely to suffer the most losses. • If data are not readily available, note these data limitations in the plan. Include actions in the mitigation strategy to obtain these data for the plan update.	✓	
		SUMMARY SCORE	✓	

Standard State Hazard Mitigation Plan Review and Approval Status

State Point of Contact:	**Address:**
Title:	
Agency:	
Phone Number:	**E-Mail:**

FEMA Reviewer:	**Title:**	**Date:**
Date Received in FEMA Region [Insert #]		
Plan Not Approved		
Plan Approved		
Date Approved		

State: Date of Plan:

STANDARD STATE HAZARD MITIGATION PLAN SUMMARY CROSSWALK

The plan cannot be approved if the plan has not been formally adopted.

Each requirement includes separate elements. All elements of the requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a score of "Satisfactory." Elements of each requirement are listed on the following pages of the Plan Review Crosswalk. A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing. Reviewer's comments must be provided for requirements receiving a **"Needs Improvement"** score.

SCORING SYSTEM

Please check one of the following for each requirement.

N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Prerequisite	**NOT MET**	**MET**
Adoption by the State: §201.4(c)(6) and §201.4(c)(7)		

Planning Process	**N**	**S**
Documentation of the Planning Process: §201.4(c)(1)		
Coordination Among Agencies: §201.4(b)		
Program Integration: §201.4(b)		

Risk Assessment	**N**	**S**
Identifying Hazards: §201.4(c)(2)(i)		
Profiling Hazards: §201.4(c)(2)(i)		
Assessing Vulnerability by Jurisdiction: §201.4(c)(2)(ii)		
Assessing Vulnerability of State Facilities: §201.4(c)(2)(ii)		
Estimating Potential Losses by Jurisdiction: §201.4(c)(2)(iii)		
Estimating Potential Losses of State Facilities: §201.4(c)(2)(iii)		

Mitigation Strategy	**N**	**S**
Hazard Mitigation Goals: §201.4(c)(3)(i)		
State Capability Assessment: §201.4(c)(3)(ii)		
Local Capability Assessment: §201.4(c)(3)(ii)		
Mitigation Actions: §201.4(c)(3)(iii)		
Funding Sources: §201.4(c)(3)(iv)		

Coordination of Local Mitigation Planning	**N**	**S**
Local Funding and Technical Assistance: §201.4(c)(4)(i)		
Local Plan Integration: §201.4(c)(4)(ii)		
Prioritizing Local Assistance: §201.4(c)(4)(iii)		

Plan Maintenance Process	**N**	**S**
Monitoring, Evaluating, and Updating the Plan: §201.4(c)(5)(i)		
Monitoring Progress of Mitigation Activities: §201.4(c)(5)(ii) and (iii)		

STANDARD STATE HAZARD MITIGATION PLAN APPROVAL STATUS

PLAN NOT APPROVED	
PLAN APPROVED	

See Reviewer's Comments

PREREQUISITE

Adoption by the State

Requirement §201.4(c)(6): *The plan **must** be formally adopted by the State prior to submittal to [FEMA] for final review and approval.*

Requirement §201.4(c)(7): *The plan **must** include assurances that the State will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c). The State will amend its plan whenever necessary to reflect changes in State or Federal laws and statutes as required in 44 CFR 13.11(d).*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE NOT MET	SCORE MET
A. Has the State formally adopted the **new or updated** plan?				
B. Does the plan provide assurances that the State will **continue to** comply with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c), and will amend its plan whenever necessary to reflect changes in State or Federal laws and statutes as required in 44 CFR 13.11(d)?				
		SUMMARY SCORE		

PLANNING PROCESS: *§201.4(b): An effective planning process is essential in developing and maintaining a good plan.*

Documentation of the Planning Process

Requirement §201.4(c)(1): *[The State plan **must** include a] description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan provide a narrative description of how the **new or updated** plan was prepared?				
B. Does the **new or updated** plan indicate who was involved in the **current** planning process?				
C. Does the **new or updated** plan indicate how other agencies participated in the **current** planning process?				
D. Does the updated plan document how the planning team reviewed and analyzed each section of the plan?				
E. Does the updated plan indicate for each section whether or not it was revised as part of the update process?				
		SUMMARY SCORE		

Coordination Among Agencies

Requirement §201.4(b): *The [State] mitigation planning process* ***should*** *include coordination with other State agencies, appropriate Federal agencies, interested groups, and … .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan describe how Federal and State agencies were involved in the **current** planning process?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
B. Does the **new or updated** plan describe how interested groups (e.g., businesses, non-profit organizations, and other interested parties) were involved in the **current** planning process?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
C. Does the updated plan discuss how coordination among Federal and State agencies changed since approval of the previous plan?				
		SUMMARY SCORE		

Program Integration

Requirement §201.4(b): *[The State mitigation planning process* ***should****] be integrated to the extent possible with other ongoing State planning efforts as well as other FEMA mitigation programs and initiatives.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan describe how the State mitigation planning process is integrated with other ongoing State planning efforts?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
B. Does the **new or updated** plan describe how the State mitigation planning process is integrated with FEMA mitigation programs and initiatives?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
		SUMMARY SCORE		

RISK ASSESSMENT: *§201.4(c)(2): [The State plan must include a risk assessment] that provides the factual basis for activities proposed in the strategy portion of the mitigation plan. Statewide risk assessments must characterize and analyze natural hazards and risks to provide a statewide overview. This overview will allow the State to compare potential losses throughout the State and to determine their priorities for implementing mitigation measures under the strategy, and to prioritize jurisdictions for receiving technical and financial support in developing more detailed local risk and vulnerability assessments.*

Identifying Hazards

Requirement §201.4(c)(2)(i): *[The State risk assessment **shall** include an] overview of the type … of all natural hazards that can affect the State … .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan provide a description of the type of **all natural hazards** that can affect the State? If the hazard identification omits (without explanation) any hazards commonly recognized as threats to the State, this part of the plan cannot receive a Satisfactory score.				
		SUMMARY SCORE		

Profiling Hazards

Requirement §201.4(c)(2)(i): *[The State risk assessment **shall** include an overview of the] location of all natural hazards that can affect the State, including information on previous occurrences of hazard events, as well as the probability of future hazard events, using maps where appropriate … .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the risk assessment identify the **location** (i.e., geographic area affected) of each natural hazards addressed in the **new or updated** plan?				
B. Does the **new or updated** plan provide information on **previous occurrences** of each hazard addressed in the plan?				
C. Does the **new or updated** plan include the **probability of future events** (i.e., chance of occurrence) for each hazard addressed in the plan?				
		SUMMARY SCORE		

Assessing Vulnerability

Requirement §201.4(c)(2)(ii): *[The State risk assessment **shall** include an] overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in local risk assessments as well as the State risk assessment. The State **shall** describe vulnerability in terms of the jurisdictions most threatened by the identified hazards, and most vulnerable to damage and loss associated with hazard events. State owned critical or operated facilities located in the identified hazard areas shall also be addressed … .*

Requirement §201.4(d): Plan must be reviewed and revised to reflect changes in development…

Assessing Vulnerability by Jurisdiction

Element	Location in the **Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan describe the State's vulnerability based on estimates provided in local risk assessments as well as the State risk assessment?				
B. Does the **new or updated** plan describe the State's vulnerability in terms of the jurisdictions most threatened and most vulnerable to damage and loss associated with hazard event(s)?				
C. Does the updated plan explain the process used to analyze the information from the local risk assessments, as necessary?				
D. Does the updated plan reflect changes in development for jurisdictions in hazard prone areas?				
		SUMMARY SCORE		

Assessing Vulnerability of State Facilities

Element	Location in the **Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan describe the types of State owned or operated critical facilities located in the identified hazard areas?				
		SUMMARY SCORE		

Estimating Potential Losses

Requirement §201.4(c)(2)(iii): *[The State risk assessment **shall** include an] overview and analysis of potential losses to the identified vulnerable structures, based on estimates provided in local risk assessments as well as the State risk assessment. The State **shall** estimate the potential dollar losses to State owned or operated buildings, infrastructure, and critical facilities located in the identified hazard areas.*

Requirement §201.4(d): Plan must be reviewed and revised to reflect changes in development…

Estimating Potential Losses by Jurisdiction

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan present an overview and analysis of the potential losses to the identified vulnerable structures?				
B. Are the potential losses based on estimates provided in local risk assessments as well as the State risk assessment?				
C. Does the updated plan reflect the effects of changes in development on loss estimates?				
		SUMMARY SCORE		

Estimating Potential Losses of State Facilities

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan present an estimate of the potential dollar losses to State owned or operated buildings, infrastructure, and critical facilities in the identified hazard areas?				
		SUMMARY SCORE		

MITIGATION STRATEGY: *§201.4(c)(3) [To be effective the plan must include a] Mitigation Strategy that provides the State's blueprint for reducing the losses identified in the risk assessment.*

Hazard Mitigation Goals

Requirement §201.4(c)(3)(i): *[The State mitigation strategy **shall** include a] description of State goals to guide the selection of activities to mitigate and reduce potential losses.*

Requirement §201.4(d): Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities…

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan provide a description of State mitigation **goals** that guide the selection of mitigation activities?				
B. Does the updated plan demonstrate that the goals were assessed and either remain valid or have been revised?				
		SUMMARY SCORE		

State Capability Assessment ***Requirement §201.4(c)(3)(ii):*** *[The State mitigation strategy **shall** include a] discussion of the State's pre-and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas [and] a discussion of State funding capabilities for hazard mitigation projects … .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan include an evaluation of the State's **pre-disaster** hazard management policies, programs, and capabilities?				
B. Does the **new or updated** plan include an evaluation of the State's **post-disaster** hazard management policies, programs, and capabilities?				
C. Does the **new or updated** plan include an evaluation of the State's policies related to **development in hazard prone areas**?				
D. Does the **new or updated** plan include a discussion of State **funding capabilities** for hazard mitigation projects?				
E. Does the updated plan address any hazard management capabilities of the State that have changed since approval of the previous plan?				

SUMMARY SCORE		

Local Capability Assessment

Requirement §201.4(c)(3)(ii): *[The State mitigation strategy **shall** include] a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan present a general description of the local mitigation policies, programs, and capabilities?				
B. Does the **new or updated** plan provide a general analysis of the effectiveness of local mitigation policies, programs, and capabilities?				
		SUMMARY SCORE		

Mitigation Actions

Requirement §201.4(c)(3)(iii): *[State plans **shall** include an] identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section **should** be linked to local plans, where specific local actions and projects are identified.*

Requirement §201.4(d): Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities…

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan identify cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering?				
B. Does the **new or updated** plan evaluate these actions and activities?				
C. Does the **new or updated** plan prioritize these actions and activities?				
D. Does the **new or updated** plan explain how each activity contributes to the overall State mitigation strategy?				
E. Does the mitigation strategy **in the new or updated** section reflect actions and projects identified in local plans?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
		SUMMARY SCORE		

Funding Sources

Requirement §201.4(c)(3)(iv): *[The State mitigation strategy **shall** include an] identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan identify **current** sources of Federal, State, local, or private funding to implement mitigation activities?				
B. Does the **new or updated** plan identify **potential** sources of Federal, State, local, or private funding to implement mitigation activities?				
C. Does the updated plan identify the sources of mitigation funding used to implement activities in the mitigation strategy since approval of the previous plan?				
		SUMMARY SCORE		

COORDINATION OF LOCAL MITIGATION PLANNING

Local Funding and Technical Assistance

Requirement §201.4(c)(4)(i): *[The section on the Coordination of Local Mitigation Planning **must** include a] description of the State process to support, through funding and technical assistance, the development of local mitigation plans.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan provide a description of the State process to support, through funding and technical assistance, the development of local mitigation plans?				
B. Does the updated plan describe the funding and technical assistance the State has provided in the past three years to assist local jurisdictions in completing approvable mitigation plans?				
		SUMMARY SCORE		

Local Plan Integration

Requirement §201.4(c)(4)(ii): *[The section on the Coordination of Local Mitigation Planning **must** include a] description of the State process and timeframe by which the local plans will be reviewed, coordinated, and linked to the State Mitigation Plan.*

Requirement §201.4(d): Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities…

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan provide a description of the **process and timeframe** the State established to **review** local plans?				
B. Does the **new or updated** plan provide a description of the **process and timeframe** the State established to **coordinate and link** local plans to the State Mitigation Plan?				
		SUMMARY SCORE		

Prioritizing Local Assistance

Requirement §201.4(c)(4)(iii): *[The section on the Coordination of Local Mitigation Planning **must** include] criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs, which **should** include consideration for communities with the highest risks, repetitive loss properties, and most intense development pressures.*

*Further, that for non-planning grants, a principal criterion for prioritizing grants **shall** be the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated costs.*

Requirement §201.4(d): Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities…

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan provide a description of the criteria for prioritizing those communities and local jurisdictions that would receive planning and project grants under available mitigation funding programs?				
B. **For the new or updated plan, do** the prioritization criteria include, for non-planning grants, the consideration of the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated cost?				
C. **For the new or updated plan, do** the criteria include considerations for communities with the highest risk?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
D. **For the new or updated plan, do** the criteria include considerations for repetitive loss properties?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
E. **For the new or updated plan, do** the criteria include considerations for communities with the most intense development pressures?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
		SUMMARY SCORE		

PLAN MAINTENANCE PROCESS

Monitoring, Evaluating, and Updating the Plan ***Requirement §201.4(c)(5)(i):*** *[The Standard State Plan Maintenance Process **must** include an] established method and schedule for monitoring, evaluating, and updating the plan.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan describe the method and schedule for monitoring the plan? (e.g., identifies the party responsible for **monitoring**, includes schedule for reports, site visits, phone calls, and/or meetings)				
B. Does the **new or updated** plan describe the method and schedule for **evaluating** the plan? (e.g., identifies the party responsible for evaluating the plan, includes the criteria used to evaluate the plan)				
C. Does the **new or updated** plan describe the method and schedule for **updating** the plan?				
D. Does the updated plan include an analysis of whether the previously approved plan's method and schedule worked, and what elements or processes, if any, were changed?				
		SUMMARY SCORE		

Monitoring Progress of Mitigation Activities ***Requirement §201.4(c)(5)(ii):*** *[The Standard State Plan Maintenance Process **must** include a] system for monitoring implementation of mitigation measures and project closeouts. Requirement **§201.4(c)(5)(iii):*** *[The Standard State Plan Maintenance Process **must** include a] system for reviewing progress on achieving goals as well as activities and projects in the Mitigation Strategy.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** plan describe how mitigation measures and project closeouts will be monitored?				
B. Does the **new or updated** plan identify a system for reviewing progress on achieving goals in the Mitigation Strategy?				
C. Does the updated plan describe any modifications, if any, to the system identified in the previously approved plan to track the initiation, status, and completion of mitigation activities?				
D. Does the **new or updated** plan identify a system for reviewing progress on implementing activities and projects of the Mitigation Strategy?				
E. Does the updated plan discuss if mitigation actions were implemented as planned?		***Note: Related to §201.4 (c)(3)(iii)***		
		SUMMARY SCORE		

Matrix A: Profiling Hazards

This matrix can assist FEMA in scoring each hazard. States may find the matrix useful to ensure that their plan addresses each natural hazard that can affect the State. **Completing the matrix is not required.**

Note: First, check which hazards are identified in requirement §201.4(c)(2)(i). Then, place a checkmark in either the N or S box for each ***applicable*** *hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.*

Hazard Type	Hazards Identified Per Requirement §201.4(c)(2)(i)	A. Location		B. Previous Occurrences		C. Probability of Future Events	
	Yes	N	S	N	S	N	S
Avalanche	☐	☐	☐	☐	☐	☐	☐
Coastal Erosion	☐	☐	☐	☐	☐	☐	☐
Coastal Storm	☐	☐	☐	☐	☐	☐	☐
Dam Failure	☐	☐	☐	☐	☐	☐	☐
Drought	☐	☐	☐	☐	☐	☐	☐
Earthquake	☐	☐	☐	☐	☐	☐	☐
Expansive Soils	☐	☐	☐	☐	☐	☐	☐
Extreme Heat	☐	☐	☐	☐	☐	☐	☐
Flood	☐	☐	☐	☐	☐	☐	☐
Hailstorm	☐	☐	☐	☐	☐	☐	☐
Hurricane	☐	☐	☐	☐	☐	☐	☐
Land Subsidence	☐	☐	☐	☐	☐	☐	☐
Landslide	☐	☐	☐	☐	☐	☐	☐
Levee Failure	☐	☐	☐	☐	☐	☐	☐
Severe Winter Storm	☐	☐	☐	☐	☐	☐	☐
Tornado	☐	☐	☐	☐	☐	☐	☐
Tsunami	☐	☐	☐	☐	☐	☐	☐
Volcano	☐	☐	☐	☐	☐	☐	☐
Wildfire	☐	☐	☐	☐	☐	☐	☐
Windstorm	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐

To check boxes, double click on the box and change the default value to "checked."

Legend:
§201.4(c)(2)(i) Profiling Hazards
A. Does the risk assessment identify the location (i.e., geographic area affected) of each natural hazard addressed in the **new or updated** plan?
B. Does the plan provide information on previous occurrences of each hazard addressed in the **new or updated** plan?
C. Does the plan include the probability of future events (i.e., chance of occurrence) for each hazard addressed in the **new or updated** plan?

Matrix B: Assessing Vulnerability

This matrix can assist FEMA in scoring each hazard. States may find the matrix useful to ensure that their plan addresses each requirement. Note that this matrix only includes items for Requirements §201.4(c)(2)(ii) and §201.4(c)(2)(iii) that are related to specific natural hazards that can affect the State. **Completing the matrix is not required**.

Note: First, check which hazards are identified in requirement §201.4(c)(2)(i). Then, place a checkmark in either the N or S box for each ***applicable*** *hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.*

Hazard Type	Hazards Identified Per Requirement §201.4(c)(2)(i)	§201.4(c)(2)(ii) Assessing Vulnerability					§201.4(c)(2)(iii) Estimating Potential Losses				
		1. Vulnerability by Jurisdiction		2. Vulnerability to State Facilities			3. Loss Estimate by Jurisdiction		4. Loss Estimate of State Facilities		
	Yes	N	S	N	S		N	S	N	S	
Avalanche	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Coastal Erosion	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Coastal Storm	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Dam Failure	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Drought	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Earthquake	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Expansive Soils	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Extreme Heat	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Flood	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Hailstorm	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Hurricane	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Land Subsidence	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Landslide	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Levee Failure	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Severe Winter Storm	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Tornado	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Tsunami	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Volcano	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Wildfire	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Windstorm	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐	
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐	

To check boxes, double click on the box and change the default value to "checked."

Legend

§201.4(c)(2)(ii) Assessing Vulnerability by Jurisdiction (see element B)

1. Does the **new or updated** plan describe the State's vulnerability in terms of the jurisdictions most threatened and most vulnerable to damage and loss associated with hazard event(s)?

§201.4(c)(2)(ii) Assessing Vulnerability to State Facilities (see element A)

2. Does the **new or updated** plan describe the types of State owned or operated critical facilities located in the identified hazard areas?

§201.4(c)(2)(iii) Estimating Potential Losses by Jurisdiction (see element A)

3. Does the **new or updated** plan present an overview and analysis of the potential losses to the identified vulnerable structures?

§201.4(c)(2)(iii) Estimating Potential Losses of State Facilities (see element A)

4. Does the **new or updated** plan present an estimate of the potential dollar losses to State owned or operated buildings, infrastructure, and critical facilities in the identified hazard areas?

Instructions for Using the Attached Plan Review Crosswalk for Review of Enhanced State Hazard Mitigation Plans

Attached is a Plan Review Crosswalk based on the ***Multi-Hazard Mitigation Planning Guidance Under the Disaster Mitigation Act of 2000***, published by FEMA, dated March 2004, and revised June 2007. This Plan Review Crosswalk is consistent with the *Disaster Mitigation Act of 2000* (P.L. 106-390), enacted October 30, 2000 and *44 CFR Part 201 – Mitigation Planning* (the Rule).

SCORING SYSTEM

N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Each requirement includes separate elements. All elements of a requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a summary score of "Satisfactory."

The example below illustrates how to fill in the Plan Review Crosswalk.

Example

6. Effective Use of Available Mitigation Funding

Requirement §201.5(b)(3): *[The Enhanced Plan **must** demonstrate] that the State effectively uses existing mitigation programs to achieve its mitigation goals.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the new or updated Enhanced Plan document how the State has made full use of funding available from FEMA mitigation grant programs, and if the State has not made full use of this funding, does the plan explain the reasons why?	Section VI, pp. 2-3	The plan contains information that the State has not made full use of funding from FEMA grant programs, without explaining why this is the case. **Required Revision:** • Discuss why all available funding from FEMA grant programs was not used.	✓	
		SUMMARY SCORE	✓	

Enhanced State Hazard Mitigation Plan Review and Approval Status

State Point of Contact:	**Address:**
Title:	
Agency:	
Phone Number:	**E-Mail:**

FEMA Reviewer:	**Title:**	**Date:**
Date Received in FEMA Region [insert #]		
Plan Not Approved		
Plan Approved		
Date Approved		

ENHANCED STATE HAZARD MITIGATION PLAN SUMMARY CROSSWALK

The plan cannot be approved if the plan has not been formally adopted.

Each requirement includes separate elements. All elements of the requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a score of "Satisfactory." Elements of each requirement are listed on the following pages of the Plan Review Crosswalk. Reviewer's comments must be provided for requirements receiving a **"Needs Improvement"** score.

SCORING SYSTEM
Please check one of the following for each requirement:
N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Prerequisite	**NOT MET**	**MET**
1. Compliance with Standard State Plan Requirements: §201.5(b)		

Comprehensive State Hazard Mitigation Planning Program	**N**	**S**
2. Integration with Other Planning Initiatives: §201.5(b)(1)		
3. Project Implementation Capability: §201.5(b)(2)(i) and (ii)		
4. Program Management Capability: §201.5(b)(2)(iii A-D)		
5. Assessment of Mitigation Actions: §201.5(b)(2)(iv)		
6. Effective Use of Available Mitigation Funding: §201.5(b)(3)		
7. Commitment to a Comprehensive Mitigation Program: §201.5(b)(4)(i-vi)		

ENHANCED STATE HAZARD MITIGATION PLAN APPROVAL STATUS

PLAN NOT APPROVED	
PLAN APPROVED	

See Reviewer's Comments

PREREQUISITE

1. Compliance with Standard State Plan Requirements

Requirement §201.5(b): *Enhanced State Mitigation Plans **must** include all elements of the Standard State Mitigation Plan identified in §201.4 … .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			NOT MET	MET
A. Does the **new or updated** Enhanced Plan meet all the Standard State Mitigation Plan requirements?				
		SUMMARY SCORE		

COMPREHENSIVE STATE HAZARD MITIGATION PLANNING PROGRAM

2. Integration with Other Planning Initiatives

Requirement §201.5(b)(1): *[An Enhanced Plan **must** demonstrate] that the plan is integrated to the extent practicable with other State and/or regional planning initiatives (comprehensive, growth management, economic development, capital improvement, land development, and/or emergency management plans) and FEMA mitigation programs and initiatives that provide guidance to State and regional agencies.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the **new or updated** Enhanced Plan demonstrate how it is integrated to the extent practicable with other State and regional planning initiatives (comprehensive, growth management, economic development, capital improvement, land development, and/or emergency management plans)?				
B. Does the **new or updated** Enhanced Plan demonstrate how it has been integrated to the extent practicable with FEMA mitigation programs and initiatives that provide guidance to State and regional agencies?				
		SUMMARY SCORE		

3. Project Implementation Capability

Requirement §201.5(b)(2)(i) and (ii): *[The Enhanced Plan **must** document] the State's project implementation capability, identifying and demonstrating the ability to implement the plan, including:*

- *Established eligibility criteria for multi-hazard mitigation measures.*
- *A system to determine the cost effectiveness of mitigation measures, consistent with OMB Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, and*
- *[A system] to rank the measures according to the State's eligibility criteria.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** Enhanced Plan demonstrate that the State has established eligibility criteria for multi-hazard mitigation measures? **Does the updated Plan describe changes, if any, to those criteria?**				
B. Does the **new or updated** Enhanced Plan describe the State's system for determining the cost effectiveness of mitigation measures, consistent with OMB Circular A-94? **Does the updated Plan describe changes, if any, to this system?**				
C. Does the **new or updated** Enhanced Plan describe the State's system to rank the measures according to the State's eligibility criteria, **including a process to prioritize projects between jurisdictions and between proposals that address different or multiple hazards**?				
		SUMMARY SCORE		

4. Program Management Capability

Requirement §201.5(b)(2)(iii A-D): *[The Enhanced Plan **must** demonstrate] that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, [and provide] a record of the following:*

- *Meeting HMGP and other mitigation grant application timeframes and submitting complete, technically feasible, and eligible project applications with appropriate supporting documentation;*
- *Preparing and submitting accurate environmental reviews and benefit-cost analyses;*
- *Submitting complete and accurate quarterly progress and financial reports on time; and*
- *Completing HMGP and other mitigation grant projects within established performance periods, including financial reconciliation.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** Enhanced Plan describe the State's capability to effectively manage the HMGP as well as other mitigation grant programs?		***[See Regional Certification to Determine Score]***		
B. Does the **new or updated** Enhanced Plan provide a record for meeting HMGP and other mitigation grant application timeframes and submitting complete, technically feasible, and eligible project applications with appropriate supporting documentation?		***[See Regional Certification to Determine Score]***		
C. Does the **new or updated** Enhanced Plan provide a record for preparing and submitting accurate environmental reviews and benefit-cost analyses?		***[See Regional Certification to Determine Score]***		
D. Does the **new or updated** Enhanced Plan provide a record for submitting complete and accurate quarterly progress and financial reports on time?		***[See Regional Certification to Determine Score]***		
E. Does the **new or updated** Enhanced Plan provide a record for completing HMGP and other mitigation grant projects within established performance periods, including financial reconciliation?		***[See Regional Certification to Determine Score]***		
SUMMARY SCORE				

5. Assessment of Mitigation Actions

Requirement §201.5(b)(2)(iv): *[The Enhanced Plan **must** document the] system and strategy by which the State will conduct an assessment of the completed mitigation actions and include a record of the effectiveness (actual cost avoidance) of each mitigation action.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the **new or updated** Enhanced Plan describe the system and strategy by which the State will conduct an assessment of the completed mitigation actions?				
B. Does the **new or updated** Enhanced Plan include the record of the effectiveness (i.e., actual cost avoidance) of each mitigation actions, **including how the assessment was completed?**				
		SUMMARY SCORE		

6. Effective Use of Available Mitigation Funding

Requirement §201.5(b)(3): *[The Enhanced Plan **must** demonstrate] that the State effectively uses existing mitigation programs to achieve its mitigation goals.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the new or updated Enhanced Plan document how the State has made full use of funding available from FEMA mitigation grant programs, and if the State has not made full use of this funding, does the plan explain the reasons why?				
B. Does the **new or updated** Enhanced Plan document how the State is effectively using existing programs to achieve its mitigation goals?				
		SUMMARY SCORE		

7. Commitment to a Comprehensive Mitigation Program

Requirement §201.5(b)(4)(i-vi): *[The Enhanced Plan **must** demonstrate] that the State is committed to a comprehensive state mitigation program, which might include any of the following:*

- *A commitment to support local mitigation planning by providing workshops and training, State planning grants, or coordinated capability development of local officials, including Emergency Management and Floodplain Management certifications.*
- *A Statewide program of hazard mitigation through the development of legislative initiatives, mitigation councils, formation of public/private partnerships, and/or other executive actions that promote hazard mitigation.*
- *The State provides a portion of the non-Federal match for HMGP and/or other mitigation projects.*
- *To the extent allowed by State Law, the State requires or encourages local governments to use a current version of a nationally applicable model building code or standard that addresses natural hazards as a basis for design and construction of State sponsored mitigation projects.*
- *A comprehensive, multi-year plan to mitigate the risks posed to the existing buildings that have been identified as necessary for post-disaster response and recovery operations.*
- *A comprehensive description of how the State integrates mitigation into its post-disaster recovery operations.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the **new or updated** Enhanced Plan demonstrate that the State is committed to a comprehensive State mitigation program?				
B. Does the updated Enhanced Plan demonstrate progress in implementing a comprehensive State mitigation program, including new mitigation initiatives developed or implemented by the State?				
		SUMMARY SCORE		

Instructions for Using the Plan Review Crosswalk for Review of Local Mitigation Plans

Attached is a Plan Review Crosswalk based on the ***Multi-Hazard Mitigation Planning Guidance Under the Disaster Mitigation Act of 2000***, published by FEMA, dated March 2004. This Plan Review Crosswalk is consistent with the *Disaster Mitigation Act of 2000* (P.L. 106-390), enacted October 30, 2000 and *44 CFR Part 201 – Mitigation Planning, Interim Final Rule* (the Rule), published February 26, 2002.

SCORING SYSTEM

N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Each requirement includes separate elements. All elements of a requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a summary score of "Satisfactory." A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing.

When reviewing single jurisdiction plans, reviewers may want to put an N/A in the boxes for multi-jurisdictional plan requirements. When reviewing multi-jurisdictional plans, reviewers may want to put an N/A in the prerequisite box for single jurisdiction plans.

States that have additional requirements can add them in the appropriate sections of the *Multi-Hazard Mitigation Planning Guidance* or create a new section and modify this Plan Review Crosswalk to record the score for those requirements.

Optional matrices for assisting in the review of sections on profiling hazards, assessing vulnerability, and identifying and analyzing mitigation actions are found at the end of the Plan Review Crosswalk.

The example below illustrates how to fill in the Plan Review Crosswalk.

Example

Assessing Vulnerability: Overview

Requirement §201.6(c)(2)(ii): *[The risk assessment **shall** include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description **shall** include an overall summary of each hazard and its impact on the community.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan include an **overall summary** description of the jurisdiction's **vulnerability** to each hazard?	Section II, pp. 4-10	The plan describes the types of assets that are located within geographically defined hazard areas as well as those that would be affected by winter storms.		✓
B. Does the plan address the **impact** of each hazard on the jurisdiction?	Section II, pp. 10-20	The plan does not address the impact of two of the five hazards addressed in the plan. **Required Revisions:** • Include a description of the impact of floods and earthquakes on the assets. **Recommended Revisions:** • This information can be presented in terms of dollar value or percentages of damage.	✓	
		SUMMARY SCORE	✓	

Local Mitigation Plan Review and Approval Status

Jurisdiction:	Title of Plan:	Date of Plan:
Local Point of Contact:	Address:	
Title:		
Agency:		
Phone Number:	E-Mail:	

State Reviewer:	Title:	Date:

FEMA Reviewer:	Title:	Date:
Date Received in FEMA Region [Insert #]		
Plan Not Approved		
Plan Approved		
Date Approved		

Jurisdiction:	NFIP Status*			
	Y	N	N/A	CRS Class
1.				
2.				
3.				
4.				
5. [ATTACH PAGE(S) WITH ADDITIONAL JURISDICTIONS]				

*** Notes:** **Y = Participating** **N = Not Participating** **N/A = Not Mapped**

LOCAL MITIGATION PLAN REVIEW SUMMARY

The plan cannot be approved if the plan has not been formally adopted.

Each requirement includes separate elements. All elements of the requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a score of "Satisfactory." Elements of each requirement are listed on the following pages of the Plan Review Crosswalk. A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing. Reviewer's comments must be provided for requirements receiving a **"Needs Improvement"** score.

SCORING SYSTEM

Please check one of the following for each requirement.

N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Prerequisite(s) (Check Applicable Box)	**NOT MET**	**MET**
Adoption by the Local Governing Body: §201.6(c)(5) **OR**		
Multi-Jurisdictional Plan Adoption: §201.6(c)(5) **AND**		
Multi-Jurisdictional Planning Participation: §201.6(a)(3)		

Planning Process	**N**	**S**
Documentation of the Planning Process: §201.6(b) and §201.6(c)(1)		

Risk Assessment	**N**	**S**
Identifying Hazards: §201.6(c)(2)(i)		
Profiling Hazards: §201.6(c)(2)(i)		
Assessing Vulnerability: Overview: §201.6(c)(2)(ii)		
Assessing Vulnerability: Identifying Structures: §201.6(c)(2)(ii)(A)		
Assessing Vulnerability: Estimating Potential Losses: §201.6(c)(2)(ii)(B)		
Assessing Vulnerability: Analyzing Development Trends: §201.6(c)(2)(ii)(C)		
Multi-Jurisdictional Risk Assessment: §201.6(c)(2)(iii)		

Mitigation Strategy	**N**	**S**
Local Hazard Mitigation Goals: §201.6(c)(3)(i)		
Identification and Analysis of Mitigation Actions: §201.6(c)(3)(ii)		
Implementation of Mitigation Actions: §201.6(c)(3)(iii)		
Multi-Jurisdictional Mitigation Actions: §201.6(c)(3)(iv)		

Plan Maintenance Process	**N**	**S**
Monitoring, Evaluating, and Updating the Plan: §201.6(c)(4)(i)		
Incorporation into Existing Planning Mechanisms: §201.6(c)(4)(ii)		
Continued Public Involvement: §201.6(c)(4)(iii)		

Additional State Requirements*	**N**	**S**
Insert State Requirement		
Insert State Requirement		
Insert State Requirement		

LOCAL MITIGATION PLAN APPROVAL STATUS

PLAN NOT APPROVED ☐

PLAN APPROVED ☐

*States that have additional requirements can add them in the appropriate sections of the *Multi-Hazard Mitigation Planning Guidance* or create a new section and modify this Plan Review Crosswalk to record the score for those requirements.

See Reviewer's Comments

PREREQUISITE(S)

Adoption by the Local Governing Body

***Requirement §201.6(c)(5)*:** *[The local hazard mitigation plan **shall** include] documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council).*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE NOT MET	SCORE MET
A. Has the local governing body adopted the plan?				
B. Is supporting documentation, such as a resolution, included?				
		SUMMARY SCORE		

Multi-Jurisdictional Plan Adoption

***Requirement §201.6(c)(5)*:** *For multi-jurisdictional plans, each jurisdiction requesting approval of the plan **must** document that it has been formally adopted.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE NOT MET	SCORE MET
A. Does the plan indicate the specific jurisdictions represented in the plan?				
B. For each jurisdiction, has the local governing body adopted the plan?				
C. Is supporting documentation, such as a resolution, included for each participating jurisdiction?				
		SUMMARY SCORE		

Multi-Jurisdictional Planning Participation

***Requirement §201.6(a)(3)*:** *Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process … Statewide plans will not be accepted as multi-jurisdictional plans.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE NOT MET	SCORE MET
A. Does the plan describe **how** each jurisdiction participated in the plan's development?				
		SUMMARY SCORE		

PLANNING PROCESS: *§201.6(b): An open public involvement process is essential to the development of an effective plan.*

Documentation of the Planning Process

Requirement §201.6(b): *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.

Requirement §201.6(c)(1): *[The plan* ***shall*** *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.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the plan provide a narrative description of the process followed to prepare the plan?				
B. Does the plan indicate who was involved in the planning process? (For example, who led the development at the staff level and were there any external contributors such as contractors? Who participated on the plan committee, provided information, reviewed drafts, etc.?)				
C. Does the plan indicate how the public was involved? (Was the public provided an opportunity to comment on the plan during the drafting stage and prior to the plan approval?)				
D. Was there an opportunity for neighboring communities, agencies, businesses, academia, nonprofits, and other interested parties to be involved in the planning process?				
E. Does the planning process describe the review and incorporation, if appropriate, of existing plans, studies, reports, and technical information?				
		SUMMARY SCORE		

RISK ASSESSMENT: *§201.6(c)(2): The plan shall include a risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.*

Identifying Hazards

Requirement §201.6(c)(2)(i): *[The risk assessment **shall** include a] description of the type … of all natural hazards that can affect the jurisdiction.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan include **a description** of the types of **all natural hazards** that affect the jurisdiction? If the hazard identification omits (without explanation) any hazards commonly recognized as threats to the jurisdiction, this part of the plan cannot receive a Satisfactory score. Consult with the State Hazard Mitigation Officer to identify applicable hazards that may occur in the planning area.				
		SUMMARY SCORE		

Profiling Hazards

Requirement §201.6(c)(2)(i): *[The risk assessment **shall** include a] description of the … location and extent of all natural hazards that can affect the jurisdiction. The plan **shall** include information on previous occurrences of hazard events and on the probability of future hazard events.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the risk assessment identify the **location** (i.e., geographic area affected) of each natural hazard addressed in the plan?				
B. Does the risk assessment identify the **extent** (i.e., magnitude or severity) of each hazard addressed in the plan?				
C. Does the plan provide information on **previous occurrences** of each hazard addressed in the plan?				
D. Does the plan include the **probability of future events** (i.e., chance of occurrence) for each hazard addressed in the plan?				
		SUMMARY SCORE		

Assessing Vulnerability: Overview

Requirement §201.6(c)(2)(ii): *[The risk assessment **shall** include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description **shall** include an overall summary of each hazard and its impact on the community.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan include an **overall summary** description of the jurisdiction's **vulnerability** to each hazard?				
B. Does the plan address the **impact** of each hazard on the jurisdiction?				
		SUMMARY SCORE		

Assessing Vulnerability: Identifying Structures

Requirement §201.6(c)(2)(ii)(A): *The plan **should** describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area … .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan describe vulnerability in terms of the **types and numbers** of **existing** buildings, infrastructure, and critical facilities located in the identified hazard areas?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
B. Does the plan describe vulnerability in terms of the **types and numbers** of **future** buildings, infrastructure, and critical facilities located in the identified hazard areas?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
		SUMMARY SCORE		

Assessing Vulnerability: Estimating Potential Losses

Requirement §201.6(c)(2)(ii)(B): *[The plan **should** describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate … .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan estimate **potential dollar losses** to vulnerable structures?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
B. Does the plan describe the **methodology** used to prepare the estimate?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
		SUMMARY SCORE		

Assessing Vulnerability: Analyzing Development Trends

Requirement §201.6(c)(2)(ii)(C): *[The plan **should** describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan describe land uses and development trends?		***Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.***		
		SUMMARY SCORE		

Multi-Jurisdictional Risk Assessment

Requirement §201.6(c)(2)(iii): *For multi-jurisdictional plans, the risk assessment **must** assess each jurisdiction's risks where they vary from the risks facing the entire planning area.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan include a risk assessment for each participating jurisdiction as needed to reflect unique or varied risks?				
		SUMMARY SCORE		

MITIGATION STRATEGY: *§201.6(c)(3): The plan shall include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.*

Local Hazard Mitigation Goals

Requirement §201.6(c)(3)(i): *[The hazard mitigation strategy **shall** include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A Does the plan include a description of mitigation **goals** to reduce or avoid long-term vulnerabilities to the identified hazards? (**GOALS** are long-term; represent what the community wants to achieve, such as "eliminate flood damage"; and are based on the risk assessment findings.)				
		SUMMARY SCORE		

Identification and Analysis of Mitigation Actions

Requirement §201.6(c)(3)(ii): *[The mitigation strategy **shall** include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.*

Element	Location in the **Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan identify and analyze a **comprehensive range** of specific mitigation actions and projects for each hazard?				
B Do the identified actions and projects address reducing the effects of hazards on **new** buildings and infrastructure?				
C. Do the identified actions and projects address reducing the effects of hazards on **existing** buildings and infrastructure?				
		SUMMARY SCORE		

Implementation of Mitigation Actions

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.*

Element	Location in the **Plan** (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the mitigation strategy include how the actions are **prioritized**? (For example, is there a discussion of the process and criteria used?)				
B. Does the mitigation strategy address how the actions will be **implemented and administered**? (For example, does it identify the responsible department, existing and potential resources, and timeframe?)				
C. Does the prioritization process include an emphasis on the use of a **cost-benefit review** (see page 3-36 of *Multi-Hazard Mitigation Planning Guidance*) to maximize benefits?				
		SUMMARY SCORE		

Multi-Jurisdictional Mitigation Actions

Requirement §201.6(c)(3)(iv): *For multi-jurisdictional plans, there* ***must*** *be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A Does the plan include at least one identifiable **action item** for each jurisdiction requesting FEMA approval of the plan?				
		SUMMARY SCORE		

PLAN MAINTENANCE PROCESS

Monitoring, Evaluating, and Updating the Plan

Requirement §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.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan describe the method and schedule for **monitoring** the plan? (For example, does it identify the party responsible for monitoring and include a schedule for reports, site visits, phone calls, and meetings?)				
B. Does the plan describe the method and schedule for **evaluating** the plan? (For example, does it identify the party responsible for evaluating the plan and include the criteria used to evaluate the plan?)				
C. Does the plan describe the method and schedule for **updating** the plan within the five-year cycle?				
		SUMMARY SCORE		

Incorporation into Existing Planning Mechanisms

Requirement §201.6(c)(4)(ii): *[The plan **shall** include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan identify other local planning mechanisms available for incorporating the requirements of the mitigation plan?				
B. Does the plan include a process by which the local government will incorporate the requirements in other plans, when appropriate?				
		SUMMARY SCORE		

Continued Public Involvement

Requirement §201.6(c)(4)(iii): *[The plan maintenance process **shall** include a] discussion on how the community will continue public participation in the plan maintenance process.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE N	SCORE S
A. Does the plan explain how **continued public participation** will be obtained? (For example, will there be public notices, an on-going mitigation plan committee, or annual review meetings with stakeholders?)				
		SUMMARY SCORE		

Matrix A: Profiling Hazards

This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure that their plan addresses each natural hazard that can affect the jurisdiction. **Completing the matrix is not required**.

Note: First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each ***applicable*** *hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.*

Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i)	A. Location		B. Extent		C. Previous Occurrences		D. Probability of Future Events	
	Yes	N	S	N	S	N	S	N	S
Avalanche	☐	☐	☐	☐	☐	☐	☐	☐	☐
Coastal Erosion	☐	☐	☐	☐	☐	☐	☐	☐	☐
Coastal Storm	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dam Failure	☐	☐	☐	☐	☐	☐	☐	☐	☐
Drought	☐	☐	☐	☐	☐	☐	☐	☐	☐
Earthquake	☐	☐	☐	☐	☐	☐	☐	☐	☐
Expansive Soils	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extreme Heat	☐	☐	☐	☐	☐	☐	☐	☐	☐
Flood	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hailstorm	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hurricane	☐	☐	☐	☐	☐	☐	☐	☐	☐
Land Subsidence	☐	☐	☐	☐	☐	☐	☐	☐	☐
Landslide	☐	☐	☐	☐	☐	☐	☐	☐	☐
Severe Winter Storm	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tornado	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tsunami	☐	☐	☐	☐	☐	☐	☐	☐	☐
Volcano	☐	☐	☐	☐	☐	☐	☐	☐	☐
Wildfire	☐	☐	☐	☐	☐	☐	☐	☐	☐
Windstorm	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐	☐	☐	☐	☐

To check boxes, double click on the box and change the default value to "checked."

Legend:
§201.6(c)(2)(i) Profiling Hazards
A. Does the risk assessment identify the location (i.e., geographic area affected) of each hazard addressed in the plan?
B. Does the risk assessment identify the extent (i.e., magnitude or severity) of each hazard addressed in the plan?
C. Does the plan provide information on previous occurrences of each natural hazard addressed in the plan?
D. Does the plan include the probability of future events (i.e., chance of occurrence) for each hazard addressed in the plan?

Matrix B: Assessing Vulnerability

This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure that their plan addresses each requirement. **Completing the matrix is not required**.

Note: First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each ***applicable*** *hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.*

Note: Receiving an N in the shaded columns will not preclude the plan from passing.

To check boxes, double click on the box and change the default value to "checked."

Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i)	§201.6(c)(2)(ii) Assessing Vulnerability: Overview					§201.6(c)(2)(ii) Assessing Vulnerability: Identifying Structures					§201.6(c)(2)(ii) Assessing Vulnerability: Estimating Potential Losses			
		A. Overall Summary Description of Vulnerability		B. Hazard Impact			A. Types and Number of Existing Structures in Hazard Area (Estimate)		B. Types and Number of Future Structures in Hazard Area (Estimate)			A. Loss Estimate		B. Methodology	
	Yes	N	S	N	S		N	S	N	S		N	S	N	S
Avalanche	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Coastal Erosion	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Coastal Storm	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Dam Failure	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Drought	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Earthquake	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Expansive Soils	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Extreme Heat	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Flood	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Hailstorm	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Hurricane	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Land Subsidence	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Landslide	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Severe Winter Storm	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Tornado	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Tsunami	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Volcano	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Wildfire	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Windstorm	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐
Other _____	☐	☐	☐	☐	☐		☐	☐	☐	☐		☐	☐	☐	☐

Legend:

§201.6(c)(2)(ii) Assessing Vulnerability: Overview

A. Does the plan include an overall summary description of the jurisdiction's vulnerability to each hazard?

B. Does the plan address the impact of each hazard on the jurisdiction?

§201.6(c)(2)(ii)(A) Assessing Vulnerability: Identifying Structures

A. Does the plan describe vulnerability in terms of the types and numbers of existing buildings, infrastructure, and critical facilities located in the identified hazard areas?

B. Does the plan describe vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities located in the identified hazard areas?

§201.6(c)(2)(ii)(B) Assessing Vulnerability: Estimating Potential Losses

A. Does the plan estimate potential dollar losses to vulnerable structures?

B. Does the plan describe the methodology used to prepare the estimate?

Matrix C: Identification and Analysis of Mitigation Actions

This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure consideration of a range of actions for each hazard. **Completing the matrix is not required.**

Note: First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each ***applicable*** *hazard. An "N" for any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.*

Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i)	A. Comprehensive Range of Actions and Projects	
	Yes	N	S
Avalanche	☐	☐	☐
Coastal Erosion	☐	☐	☐
Coastal Storm	☐	☐	☐
Dam Failure	☐	☐	☐
Drought	☐	☐	☐
Earthquake	☐	☐	☐
Expansive Soils	☐	☐	☐
Extreme Heat	☐	☐	☐
Flood	☐	☐	☐
Hailstorm	☐	☐	☐
Hurricane	☐	☐	☐
Land Subsidence	☐	☐	☐
Landslide	☐	☐	☐
Severe Winter Storm	☐	☐	☐
Tornado	☐	☐	☐
Tsunami	☐	☐	☐
Volcano	☐	☐	☐
Wildfire	☐	☐	☐
Windstorm	☐	☐	☐
Other _____	☐	☐	☐
Other _____	☐	☐	☐
Other _____	☐	☐	☐

To check boxes, double click on the box and change the default value to "checked."

Legend:
§201.6(c)(3)(ii) Identification and Analysis of Mitigation Actions
A. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each hazard?