

Appendix H:

Standard Plan Crosswalk

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	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: <ul style="list-style-type: none"> 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

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

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

- 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)

	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

- 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)

	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)		✓

Severe Repetitive Loss Mitigation Strategy (only required for 90/10 under FMA & SRL)

- Repetitive Loss Mitigation Strategy: §201.4(c)(3)(v)
- Coordination with Repetitive Loss Jurisdictions §201.4(c)(3)(v)

	N	S
Repetitive Loss Mitigation Strategy: §201.4(c)(3)(v)		✓
Coordination with Repetitive Loss Jurisdictions §201.4(c)(3)(v)		✓

Plan Maintenance Process

- Monitoring, Evaluating, and Updating the Plan: §201.4(c)(5)(i)
- Monitoring Progress of Mitigation Activities: §201.4(c)(5)(ii) and (iii)

	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	MET
A. Has the State formally adopted the new or updated plan?	Chapter 1, Page 4	Once approved, plan will become a part of the COVEOP and will be adopted under Executive Order 60 (2007).		
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)?	Chapter 1, Page 9	This section clearly states that the Commonwealth of Virginia, Department of Emergency Management, pledges that it will: <ol style="list-style-type: none"> 1. Comply with all applicable Federal statutes and regulations in effect with respect to periods for which it receives grant funding, in compliance with 44 CFR 13.11(c); and 2. Amend this 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	S
A. Does the plan provide a narrative description of how the new or updated plan was prepared?	Chapter 2, Section 2.2, pages 2-1 – 2-8.	Section 2.2 outlines the planning process for the 2010 update to the COVEOP, Volume II, Support Annex III, Standard and Enhanced Hazard Mitigation Plan. The thought process from coordination with Virginia Tech CGIT to brainstorming and re-developing the HIRA sub-committee to undertake the revised HIRA, to re-forming the state steering committees and it's sub-committees is outlined. All of the meetings are documented, and supporting information on the meetings can be found in Standard Appendix E. There were a total of 4		✔

		HIRA sub-committee meetings, two in person meetings and 2 webinars, there were also 3 meetings of the full state committee. Each sub-committee also either had an in person meeting and/or conference call to discuss the mitigation goals and objectives from the 2007 plan.		
B. Does the new or updated plan indicate who was involved in the current planning process?	Chapter 2, page 2-5, table 2.1	This table displays the members of the steering committee that were involved in the planning process. This table indicates that various state, federal, local, non-profit, university, and private agencies were involved in the process. In appendix E you will find a listing of each sub-committee.		<input checked="" type="checkbox"/>
C. Does the new or updated plan indicate how other agencies participated in the current planning process?	Chapter 2, Section 2.2, pages 2-1 – 2-8.	This section identifies how the committee participated in the planning process, by attending meetings, reviewing sections of the plan, providing input, conference calls, reviewing prioritization criteria, ranking mitigation strategies, and providing final comments on the plan.		<input checked="" type="checkbox"/>
D. Does the updated plan document how the planning team reviewed and analyzed each section of the plan?	Chapter 1, page 2; Chapter 2, pages 2-1 – 2-1, 2-8; Chapter 3, Pages 1-2; Chapter 4 page 1, Chapter 5, page 5-1; Chapter 6, page 6-1; Chapter 7, page 7-1.	Chapter 1 – the introductory section as well as the entire plan was reviewed by the CVSHMC. Chapter 2 – these sections describes that the plan and the planning process was revised for the 2010 update. The planning team were given opportunities to provide input from the early stages of the HIRA all the way through the final draft of the plan. Chapter 4 – this section identifies that the CVHMSC was given the opportunity to review and comment on this section of the plan, several comments were received and updated. Chapter 5 – This section was reviewed and updated by the CVHMSC. It should also be noted that this section required the most involvement from the CVHMSC which involved revising the mitigation goals and objectives, which then became categories; revising the prioritization criteria for mitigation strategies; determining whether or not a strategy from the old plan was still relevant, and finally ranking the deferred and new strategies for the 2010 update. Chapter 6 – This section was reviewed and updated by the CVHMSC. Updated information on local 322 planning efforts have been included. Funding streams, plan expiration dates, training, and outreach have been included in this section. Chapter 7 - This section was reviewed and revised by the CVHMSC.		<input checked="" type="checkbox"/>
E. Does the updated plan indicate for each section whether or not it was revised as	Chapter 1, page 2; Chapter 2, pages 2-1 – 2-1, 2-	Each section of the State plan, including the Enhanced plan was updated as a part of the 2010 submittal. The fact that		<input checked="" type="checkbox"/>

part of the update process?	8; Chapter 3, Pages 1-2; Chapter 4 page 1, Chapter 5, page 5-1; Chapter 6, page 6-1; Chapter 7, page 7-1.	Virginia received Enhanced status in 2007 meant that Chapters 1-6 of the previous plan did not have to undergo significant revisions. Since there have been many changes as far as hazard events, status of mitigation strategies, policies, programs, and capabilities, local plans, and lessons learned from the original plan many alterations were needed.		
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	S
A. Does the new or updated plan describe how Federal and State agencies were involved in the current planning process?	Chapter 2, pages 2-2 – 2-8, Table 2.1	<p><i>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</i></p> <p>Federal Agencies including the NOAA National Weather Service in Wakefield, FEMA Region III, United States Army Corps of Engineers, United States Geological Survey, and the United States Department of Agriculture all participated in the planning process and attended steering committee meetings/conference calls.</p>		☑
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?	Chapter 2, pages 2-2 – 2-8, Table 2.1	<p><i>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</i></p> <p>Non-Profit groups such as the Salvation Army, the American Red Cross, and the Virginia Organizations Active in Disasters (VOADD) were just as involved in the planning process as the other agencies, attending meetings, conference calls, and reviewing drafts of the plan.</p>		☑
C. Does the updated plan discuss how coordination among Federal and State agencies changed since approval of the previous plan?	Chapter 2, pages 2-2 – 2-8, Table 2.1			☑
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	S

<p>A. Does the new or updated plan describe how the State mitigation planning process is integrated with other ongoing State planning efforts?</p>	<p>annex and page #) Chapter 2, Page 9</p>	<p><i>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</i></p> <p>This plan is being updated and integrated into the Commonwealth of Virginia Emergency Operations Plan (COVEOP) and the revised HIRA for the state shall be used as a basis for risk to natural hazards for the state and future planning efforts. This planning process is also integrated into the Emergency Management Accreditation Program (EMAP) accreditation for Virginia. Each of the hazard sections within Chapter 3 has EMAP tables at the end of them fulfilling the requirements.</p>		<input checked="" type="checkbox"/>
<p>B. Does the new or updated plan describe how the State mitigation planning process is integrated with FEMA mitigation programs and initiatives?</p>	<p>Chapter 3, Section 7, Pages 9-17; Chapter 4, Section 4.5.1, pages 4-8; Chapter 8, pages 9, 22-32</p>	<p><i>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</i></p> <p>Chapter 3 – The Risk Assessment for the flood hazard was integrated with the National Flood Insurance Program Digital Flood Insurance Rate Maps (DFIRM's). 61 DFIRMs, and 41 preliminary DFIRMs were used in the HIRA for the jurisdictional and state facility analysis. The properties in the Repetitive Flood Claims and the Severe Repetitive Loss programs were also integrated to display areas of high risk due to repetitive loss of insured properties.</p> <p>Chapter 4 – The 5 Hazard Mitigation programs are described as well as other FEMA programs such as the National Flood Insurance program.</p> <p>Chapter 8 – All 4 VDEM mitigation staff are Certified Floodplain Managers (CFM), and the implementation of the 5 HMA programs are discussed on pages 22-32.</p>		<input checked="" type="checkbox"/>
<p>SUMMARY SCORE</p>				<input checked="" type="checkbox"/>

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	S
<p>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.</p>	<p>Chapter 3 Section 3.7 pages 1-4 Section 3.8a pages 1-2 Section 3.8b page 1 Section 3.9 page 1 Section 3.10 pages 1-2 Section 3.11 page 1 Section 3.12 page 1 Section 3.13 pages 1-2 Section 3.14 page 1 Section 3.15 pages 1-2</p>	<p>FLOOD (3.7): pages 1-4 describes the types of flooding that can occur in the Commonwealth and the location of the flood hazards.</p> <p>NON-ROTATIONAL WIND (3.8A): pages 1-2 describe the hurricane hazard and the types of secondary hazards that result from them.</p> <p>TORNADO (3.8B): page 1 gives a description of the tornado hazard including wind speeds.</p> <p>WINTER WEATHER (3.9): page 1 gives a description of winter weather events and the impacts that they can cause.</p> <p>DROUGHT (3.10): pages 1-2 give a description of the drought hazard as well as extreme heat.</p> <p>WILDFIRE (3.11): page 1 describes the wildfire hazard throughout the state.</p> <p>LANDSLIDE (3.12): page 1 gives a description of the landslide hazard.</p> <p>EARTHQUAKE (3.13): pages 1-2 give a description of the earthquake hazard.</p> <p>LAND SUBSIDENCE (3.14): page 1 gives a description of the land subsidence hazard.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): pages 1-2 gives a description of the flooding following a dam failure hazard.</p>		

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	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?	3.0 (HIRA Chapter): <i>pages 3-1 highlights of hazards addressed</i> 3.1 (HIRA Intro.): <i>pages 3-3 through 3-4 brief overview of hazards addressed.</i> 3.3 (Virginia Disasters): <i>This whole section provides information about past disasters and has location maps by hazard type.</i> 3.5 (Ranking): <i>This section describes the data used for locations of hazards.</i> <i>"Geographic Extent" pgs 6 & 7 and Table 3.5-3</i> 3.7 (Flood): <i>Status of FIRMs in Figure 3.7-1 (page 11), Rep Loss</i>	<p>FLOOD (3.7): pages 1-4 describes the types of flooding that can occur in the Commonwealth and the location of the flood hazards. Also page 18 table 3.7-5 identifies flood zones identified on the Flood Insurance Rate Maps which determines 100 year and 500 year floodplains. This represents the geographic area expected of flooding for each locality. Section 3.5, table 3.5-3 also outlines that the percent of floodplain located within each jurisdiction represents the geographic extent of the hazard.</p> <p>NON-ROTATIONAL WIND (3.8A): Figure 3.8-1 not only shows the location of tropical storm and hurricane tracks that pass through Virginia, but also those storms that may not pass directly over the state but still has an impact. Figure 3.8-2 displays geographic locations expected to experience certain return periods of wind speeds, developed via HAZUZ MH.</p>		

	<p><i>claims in Table 3.7-3 and -4 and Figures 3.7-2 and -3 (pages 12-17). Percent floodplain in jurisdiction shown in ranking parameters Figure 3.7-4 (pages 26-28).</i></p> <p>3.8b (Non-Rot.): <i>Historical hurricanes in Figure 3.8a-2, wind zones in Figure 3.8a-3 and -4.</i></p> <p>3.8c (Tornado): <i>Tornado touchdowns in Figure 3.8b-1 (page 3). Hazard frequencies developed (pages 4-6) and mapped in Figures 3.8b-3 through 3.8b-4 (pages 7-8).</i></p> <p>3.9 (Winter): <i>Winter extremes (page 2), discussed in probability and in Figures 3.9-3 through 3.9-8 (pages 5-13)</i></p> <p>3.10 (Drought): <i>This is touched on in Probability (page 3) and Impact and Vulnerability (pages 3-4).</i></p> <p>3.11 (Wildfire): <i>Figure 3.11-1 (page 8) and in Jurisdiction Risk on page 11-12 and in Figure 3.11-2 (page 14).</i></p> <p>3.12 (Landslide): <i>Figure 3.12-1 (page 8) and in Jurisdiction Risk on page 9 -10 and in Figure 3.12-2 (page 12).</i></p> <p>3.13 (Earthquake): <i>Discussed in Probability (pages 8-9) with different return periods (Figures 3.13-2 and 3.13-3) and in Risk (pages 13-14).</i></p> <p>3.14 (Karst): <i>Figure 3.14-1 (page 4) and in Jurisdictional Risk on page 7-8 and in Figure 3.14-2 (page 10).</i></p> <p>3.15 (Dam): <i>Mapped dam locations on page 6 and shown in Figure 3.15-1</i></p>	<p>TORNADO (3.8B): The locations of previous tornado tracks dating back to 1950 are displayed on Page 3 in figure 3.8b-1. Tornado frequencies are mapped on figures 3.8b-3 and 3.8b-4.</p> <p>WINTER WEATHER (3.9): Page 2 describes the location of winter weather events, that they are more common in the western and northern portions of the state, and less common in the southeast. This page also lists extreme events and their location from the State Climatology Office.</p> <p>DROUGHT (3.10): Page 1 indicates that they can occur at any location throughout the state and can last a long period of time.</p> <p>WILDFIRE (3.11): Figure 3.11-1 displays the location of high hazard areas for wildfire based on the Department of Forestry Risk Assessment.</p> <p>LANDSLIDE (3.12): Page 8, figure 3.12-1 indicates areas of high susceptibility and incidence for the landslide hazard in the Commonwealth.</p> <p>EARTHQUAKE (3.13): Figure 3.13-1 displays active earthquake areas including historic events, figure 3.13-2 also displays areas where 100 year return period peak ground acceleration would be expected via HAZUS.</p> <p>LAND SUBSIDENCE (3.14): The location of the Karst hazard is displayed on page 4, figure 3.14-1.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Page 7, figure 3.15-1 has all the mapped dam locations within the Commonwealth, over 1,500.</p>	
<p>B. Does the new or updated plan provide information on previous occurrences of each hazard addressed in the plan?</p>	<p>3.3 (Virginia Disasters): Table 3.3-1, pgs 4 through 8 <i>This whole section provides information about past disasters and has locational maps by hazard type.</i></p> <p>3.5 (Ranking): <i>This section</i></p>	<p>FLOOD (3.7): Table 3.7-1 identifies previous occurrences of flooding in the Commonwealth dating back to 1862.</p> <p>NON-ROTATIONAL WIND (3.8A): Tables 3.8-1 and 3.8-2 identifies previous occurrences of hurricanes and tropical storms dating back to 1749. Figure 3.8-1 also identifies</p>	

	<p><i>describes the data used for previous occurrences of hazards. "Annualized Events" pgs 9& 10 and Table 3.5-6</i></p> <p>3.7 (Flood): <i>Major events and descriptions in table 3.7-1 pgs 5 through 8. Repetitive and Severe Repetitive Loss pgs 12through 17. Figure 3.7-5 shows the ranking parameters for analysis.</i></p> <p>3.8b (Non-Rot.): <i>Historic Occurrences Table 3.8a-2 (pages 4-5).</i></p> <p>3.8c (Tornado): <i>Historic Occurrences on page 2.</i></p> <p>3.9 (Winter): <i>Historic Occurrences on pages 3-5.</i></p> <p>3.10 (Drought): <i>Historic Occurrences Table 3.11-1 (pages 2-3)</i></p> <p>3.11 (Wildfire): <i>Historic Occurrences on pages 3-4 and Table 3.11-1 (pages 3-4)</i></p> <p>3.12 (Landslide): <i>Historic Occurrences on page 2 and Table 3.12-1 (page s 2-3).</i></p> <p>3.13 (Earthquake): <i>Historic Occurrences (page 4), Table 3.13-2 (pages 5-6) and Figure 3.13-1 (page 7). Also includes HAZUS run for 1897 Earthquake Figure 3.13-4 (page 15)</i></p> <p>3.14 (Karst): <i>Table 3.14-1 (page 2) for historical descriptions.</i></p> <p>3.15 (Dam): <i>Historic Occurrences on pages 3 and 4.</i></p>	<p>storm tracks dating back to 1851.</p> <p>TORNADO (3.8B): Page 3.8b-2 lists significant tornadic events and figure 3.8b-1 identifies all historical tornado touchdowns on record in the Commonwealth and bordering states.</p> <p>WINTER WEATHER (3.9): Pages 3-5 discuss historic occurrences of winter weather, including those events which were disaster declarations.</p> <p>DROUGHT (3.10): Pages 2-3 table 3.10-1 discusses historical occurrences of drought in the Commonwealth, including the most recent 2007 drought.</p> <p>WILDFIRE (3.11): Historical occurrences are outlines on pages 3-4, table 3.11-1. Statistics from the Department of Forestry for cause of fire, incidents, and acreage burned is also listed in table 3.11-2.</p> <p>LANDSLIDE (3.12): Pages 2-3 and table 3.12-1 lists historical occurrences of landslide in the commonwealth.</p> <p>EARTHQUAKE (3.13): Table 3.13-2 on page for displays historic occurrences and their magnitude. Also figure 3.13-1 displays significant historic occurrences.</p> <p>LAND SUBSIDENCE (3.14): Page 2, table 3.14-1 displays historical occurrences of the Land-Subsidence Hazard.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Page 3 discusses historic occurrences of dam failure and resultant flooding in the Commonwealth.</p>	
<p>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?</p>	<p>3.5 (Ranking): <i>This section describes the data used for probability of future hazards by annualized events, deaths and injuries and damage pgs 8 through 10 and Tables 3.5-4 through 3.5-6</i></p> <p>3.7 (Flood): <i>Probability discussed on page 18 and in Table 3.7-5. Annual probability used for analysis is discussed on page 22 and in Table 3.7-10. Figure 3.7-5 shows the ranking parameters</i></p>	<p>FLOOD (3.7): page 9, table 3.7-2 discusses probability of flooding with respect to FIRM maps. Also page 18 table 3.7-5 identifies flood zones and probability, including the 1% and 0.2% flood events outlined in the FIRMs.</p> <p>NON-ROTATIONAL WIND (3.8a): Pages 7-8 describe probability in terms of 100 year return period, or 1% annual chance of recurrence by means of the HAZUS model for a 3 second peak wind gust. Figure 3.8-4 is a map showing HAZUS 100 year return probability for 3 second peak wind gust across the commonwealth.</p> <p>TORNADO (3.8B): Hazard frequency and future probability</p>	

	<p>for analysis.</p> <p>3.8b (Non-Rot.): <i>Probability on page 7-8 and wind risk zones in Table 3.8a-4 (page 12).</i></p> <p>3.8c (Tornado): <i>Probability calculations for frequency on pages 4 through 7 and Figures 3.8b-3 and 3.8b-4 (pages 7-8).</i></p> <p>3.9 (Winter): <i>Probability discussed in detail and shown in Figures 3.9-3 through 3.9-8 (pages 5-13)</i></p> <p>3.10 (Drought): <i>Probability limitations discussed on page 3.</i></p> <p>3.11 (Wildfire): <i>Probability limitations discussed on page 5.</i></p> <p>3.12 (Landslide): <i>Lack of probability is discussed on page 3 and in Jurisdictional Risk on page 9.</i></p> <p>3.13 (Earthquake): <i>Probability discussed on pages 8 -9, and Figures 3.13-2 and 3.13-3. HAZUS-MH runs for magnitude 5 and 6 2500-yr events shown in Figures 3.13-5 and 3.13-6 (pages 16-17)</i></p> <p>3.14 (Karst): <i>Lack of probability is discussed on page 5 and in Jurisdictional Risk on pages 7-8.</i></p> <p>3.15 (Dam): <i>Lack of data to be able to predict probability is discussed on page 4.</i></p>	<p>was calculated from analysis of historical records. This described in pages 4-7, and in figures 3.8-b -3 and 3.8b-4.</p> <p>WINTER WEATHER (3.9): Probability is discussed on pages 5-7, and graphical representations of various probabilistic scenarios are displayed on figures 3.9-3 through 3.9-8.</p> <p>DROUGHT (3.10): Limitations of data to provide a probability of drought is discussed on page 3. Numerous definitions resulting in spotty reporting limits the ability to calculate probability.</p> <p>WILDFIRE (3.11): Probability limitations are discussed on page 5, while probability cannot be calculated because it cannot be deduced into specific return periods or intervals. However, Department of Forestry has done a statewide risk assessment, and the high risk areas are displayed in figure 3.11-1.</p> <p>LANDSLIDE (3.12): Limitations on determining probability are discussed on page 3.</p> <p>EARTHQUAKE (3.13): Probability is discussed on pages 8-9 and displayed, also 100 year return probability for pga is displayed on figure 3.13-2. 3.13-3 also displays a 500 year return for pga. HAZUS runs for magnitude 5 and 6 and a 2500 year events are shown on figures 3.13-4, 3.13-5, and 3.13-6.</p> <p>LAND SUBSIDENCE (3.14): Page 5 describes probability, for the land subsidence hazard, probability is not easily calculated. Lack of historical data, and the many contributing variables make it unrealistic for this plan revision.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Page 4 describes the necessary analysis required to determine probability is outside of the scope of this plan.</p>		
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	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?	3.7 (Flood): <i>Local plan comparison discussed on pgs 30 through 33 and in Tables 3.7-12 and 3.7-13. Storm Surge is discussed on page 4.4</i> 3.8b (Non-Rot.): <i>Local estimates are discussed in Local Risk Assessment (page 19-20); limited by number of plans that provided information.</i> 3.8c (Tornado): <i>Local estimates are discussed in Local Risk Assessment and Table 3.8b-7 (pages 12-13); limited by number of plans that provided information.</i> 3.9 (Winter): <i>Local estimates are discussed in Local Risk Assessment and Table 3.9-5 (pages 17 -18); limited by number of plans that provided information.</i> 3.10 (Drought): <i>Local estimates are discussed in Local Risk Assessment (page 7); limited by number of plans that provided information.</i> 3.11 (Wildfire): <i>Local estimates are discussed in Local Risk Assessment (pages 12-1); limited by number of plans that provided information.</i> 3.12 (Landslide): <i>Lack of local estimates is discussed in Local</i>	<p>FLOOD (3.7): Local plan risk assessment for flood was compared and discussed on pages 30 through 32 and in Tables 3.7-12 and 3.7-13. Storm Surge is discussed on page 45. Section 6, table 3.6-4 also outlines estimates from local risk assessments for flooding.</p> <p>NON-ROTATIONAL WIND (3.8A): Pages 19-20 outline the local plan estimates for annualized loss, where available, from the local hazard mitigation plans. These pages as well as section 3.6 describe the inconsistencies with local plan hazard categorization and loss estimation. The state’s vulnerability is outlined by the state facility analysis and the jurisdictional analysis.</p> <p>TORNADO (3.8B): Pages 12-13 discuss local plan loss estimates and local plan data analysis. There were only several plans that provided loss estimation for tornado.</p> <p>WINTER WEATHER (3.9): Pages 17-18 discuss local plan risk assessments for winter weather and displays the few plans that provided loss estimations on table 3.9-5.</p> <p>DROUGHT (3.10): Page 7 discusses local risk assessment and their limitations of any type of vulnerability estimates.</p> <p>WILDFIRE (3.11): Pages 12-13 discuss vulnerability in terms of limited loss estimates from local hazard mitigation plans in comparison to the state estimates for loss.</p> <p>LANDSLIDE (3.12): Pages 10-11 discusses loss estimates from local risk assessments (none), and pages 9-10 describe the statewide risk assessment.</p> <p>EARTHQUAKE (3.13): Local plans were evaluated on pages</p>		

	<p><i>Risk Assessment (pages 10-11). 3.13 (Earthquake): Local estimates are discussed in Local Risk Assessment (pages 23-24); limited by number of plans that provided information. HAZUS-MH scenarios run for annualized loss estimates (pages 21 – 23). 3.14 (Karst): Lack of local estimates is discussed in Local Risk Assessment (pages 8-9). 3.15 (Dam): Lack of local estimates is discussed in Local Risk Assessment (pages 8). State risk assessment limitations discussed on pages 5 and 6.</i></p>	<p>23-24 and only 7 local plans provided loss estimations for earthquake. The state risk assessment can be found on pages 18-23.</p> <p>LAND SUBSIDENCE (3.14): Page 8, no loss estimates were provided in local plans, so the vulnerability is based on the state risk assessment.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Pages 5 and 6 discuss limitations of state data for risk assessment, and page 8 discusses the lack of local loss estimates.</p>	
<p>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)?</p>	<p>3.7 (Flood): Page 19, 22 through 29, Table 3.7-11 lists, by community, the annualized loss values. Figure 3.7-4 shows the ranking parameters for analysis. Storm surge is discussed on page 43-44. 3.8b (Non-Rot.): Discussed in Jurisdictional Risk (pages 15-16) and in Ranking Parameters used in Figure 3.8a-5 (page 17). 3.8c (Tornado): Discussed in Jurisdictional Risk (pages 11-12) and in Ranking Parameters used in Figure 3.8b-5 (page 14). 3.9 (Winter): Discussed in Jurisdictional Risk (page 17) and in Ranking Parameters used in Figure 3.9-9 (page 19). 3.10 (Drought): Discussed in Jurisdictional Risk page 6) and in Ranking Parameters used in Figure 3.11-2 (page 14). 3.11 (Wildfire): Discussed in Jurisdictional Risk (pages 11 - 13) and in Ranking Parameters used in Figure 3.11-2 (page 8). 3.12 (Landslide): Discussed in Jurisdictional Risk (pages 9-10) and in Ranking Parameters used in Figure 3.12-2 (page 12). 3.13 (Earthquake): HAZUS-MH scenarios run for annualized loss</p>	<p>FLOOD (3.7): Page 19, 23 through 29, Table 3.7-11 lists, by community, the annualized loss values. Figure 3.7-5 shows the ranking parameters for analysis, displaying the jurisdictions that are most vulnerable to damage and loss to flooding. Storm surge vulnerability is discussed on pages 44 and 45.</p> <p>NON-ROTATIONAL WIND (3.8A): Pages 15-18 discuss the use of HAZUS to calculate annualized loss based on 100,000 years of simulated activity. Jurisdictions with the highest annualized loss, i.e. most vulnerable, are displayed on figure 3.8a-4. A jurisdictional analysis was also performed and the ranking parameters and results are listed on figure 3.8a-5. More information on the ranking methodology can be found in section 3.5.</p> <p>TORNADO (3.8B): Pages 11-12 discuss the jurisdictional risk. 3.8b-5 identifies jurisdiction at most risk for tornado, as well as the parameters included to calculate risk.</p> <p>WINTER WEATHER (3.9): Jurisdictional risk is discussed on page 17, and figure 3.9-9 is a display of jurisdictional ranking for winter weather and the parameters included in the analysis.</p> <p>DROUGHT (3.10): Page 6 discusses the jurisdictional risk assessment, and figure 3.11-2 displays the statewide jurisdictional ranking, including the ranking parameters.</p> <p>WILDFIRE (3.11): Jurisdictional risk on pages 11-12 discuss the jurisdictions that are at highest risk to wildfire. This information is also on figure 3.11-2, which displays the jurisdictional ranking and parameters for wildfire.</p>	<p style="text-align: right;"></p>

	<p><i>estimates shown in Figure 3.13-7(pages 21 – 23 and 25). Ranking Parameters (page 23) used in Figure 3.12-2 (page 26). 3.14 (Karst): Discussed in Jurisdictional Risk (pages 7-8) and in Ranking Parameters used in Figure 3.14-2 (page 10). 3.15 (Dam): Based on NID database (page 6), and Table 3.15-3 (pages 9-13)</i></p>	<p>LANDSLIDE (3.12): Jurisdictional risk is described on pages 9-10. The jurisdictional ranking for landslide is displayed on figure 3.12-2.</p> <p>EARTHQUAKE (3.13): Jurisdictional risk assessment is discussed on pages 21-23, HAZUS-MH loss estimates can be found on figure 3.13-7. Jurisdictional ranking and the parameters for earthquake can be found on figure 3.13-8.</p> <p>LAND SUBSIDENCE (3.14): Pages 7-8 identify the jurisdictions that are considered at medium or medium-high risk for the land subsidence hazard. Figure 3.11-2 also displays the jurisdictional ranking and ranking parameters used.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Page 6 describes the jurisdictions with the highest number of dams, as well as the highest storage capacity. Table 3.15-3 displays each jurisdiction and the number of dams, as well as the dam hazard classification.</p>	
<p>C. Does the updated plan explain the process used to analyze the information from the local risk assessments, as necessary?</p>	<p>3.7 (Flood): page 30 through 33and page 44 for storm surge 3.8b (Non-Rot.): Limited local analysis is discussed in Local Risk Assessment (pages 19-20). 3.8c (Tornado): Limited local analysis is discussed in Local Risk Assessment (pages 12 -13) 3.9 (Winter): Limited local analysis is discussed in Local Risk Assessment (page 17). 3.10 (Drought): Limited local analysis is discussed in Local Risk Assessment (page 7). 3.11 (Wildfire): Limited local analysis is discussed in Local Risk Assessment (page 12). 3.12 (Landslide): Lack of local analysis is discussed in Local Risk Assessment (page 10). 3.13 (Earthquake): Limited local analysis is discussed in Local Risk Assessment (pages 23-24). 3.14 (Karst): Lack of local analysis is discussed in Local Risk Assessment (page 8). 3.15 (Dam): Lack of local</p>	<p>FLOOD (3.7): Pages 30-31 and 45 discuss the analysis of local plan risk assessments for the flood hazard, inclusive of storm surge. Section 3.6 (local plan incorporation) also discusses the challenges of incorporating local risk assessments into the state planning process.</p> <p>NON-ROTATIONAL WIND (3.8A): Pages 19-20 discuss the analysis of local plan data, but concludes with it not being used because of inconsistencies with hazard categorization and loss estimations. Local incorporation is also discussed in more detail in section 3.6.</p> <p>TORNADO (3.8B): Pages 12-13 discuss local plan loss estimates and local plan data analysis. There were only several plans that provided loss estimation for tornado. Due to variability of local data, it was not included as a part of the statewide risk assessment for tornado. Section 3.6 (local plan incorporation) also discusses the challenges of incorporating local risk assessments into the state planning process.</p> <p>WINTER WEATHER (3.9): Pages 17-18 discuss local plan risk assessments for winter weather and how each local plan ranked the winter weather hazard and the methodologies that they used to analyze risk. Only several local plans attempted annualized loss estimates, displayed</p>	

	<p><i>analysis is discussed in Local Risk Assessment (page 8).</i></p>	<p>on figure 3.9-5. Section 3.6 (local plan incorporation) also discusses the challenges of incorporating local risk assessments into the state planning process.</p> <p>DROUGHT (3.10): Page 7 discusses how the local risk assessments were analyzed and their limitations for drought.</p> <p>WILDFIRE (3.11): Local risk assessments were analyzed and discussed on page 12.</p> <p>LANDSLIDE (3.12): Local risk assessment analysis is explained on pages 10-11.</p> <p>EARTHQUAKE (3.13): Pages 23-24 describe the process used to review local risk assessments. Local plans that did perform annualized loss were compared to the state annualized loss estimates.</p> <p>LAND SUBSIDENCE (3.14): Page 8 describes the process used to review local risk assessments. There was not a lot of detailed information for karst in local plans.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Page 8 discusses the lack of local data to perform any analysis at the state level.</p>	
<p>D. Does the updated plan reflect changes in development for jurisdictions in hazard prone areas?</p>	<p>3.2 (Virginia Intro): 3.7 (Flood): page 33 and page 44 for storm surge 3.8b (Non-Rot.): Changes in Development (page 20). 3.8c (Tornado): Changes in Development (page 13). 3.9 (Winter): Changes in Development (page 18). 3.10 (Drought): Changes in Development (page 7). 3.11 (Wildfire): Changes in Development (page 13). 3.12 (Landslide): Jurisdiction Risk on page 10 and Changes in Development (page 11). 3.13 (Earthquake): Changes in Development (page 24). 3.14 (Karst): Changes in Development (pages 8-9).</p>	<p>FLOOD (3.7): Pages 33 and 45 describe development trends outlined in local hazard mitigation plans. More information on land use and population trends for the state is outlined in section 3.2 (pages 13-20).</p> <p>NON ROTATIONAL WIND (3.8A): Changes in development are discussed on page 20 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>TORNADO (3.8B): Changes in development are discussed on page 13 in general terms. More information on land use and population trends for the state is outlined in section 3.2 (pages 13-20).</p> <p>WINTER WEATHER (3.9): Changes in development are discussed on page 18 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p>

	<p>3.15 (Dam): <i>Changes in Development (page 8).</i></p>	<p>DROUGHT (3.10): Changes in development are discussed on page 7 in general terms. Also land identified as agricultural land is identified on page 4. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>WILDFIRE (3.11): Changes in development are discussed on page 13 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>LANDSLIDE (3.12): Changes in development are discussed on page 11 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>EARTHQUAKE (3.13): Changes in development are discussed on page 24 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>LAND SUBSIDENCE (3.14): Changes in development are discussed on page 8 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Changes in development are discussed on page 8 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p>		
SUMMARY SCORE				<input checked="" type="checkbox"/>

Assessing Vulnerability of State Facilities

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
<p>A. Does the new or updated plan describe the types of State owned or operated critical facilities located in the identified hazard areas?</p>	<p>3.7 (Flood): <i>page 19 through 21 and Tables 3.7-6 through 3.7-8 and pages 40 through 43 and Tables 3.7-14 and 3.7-16 for storm surge.</i></p> <p>3.8b (Non-Rot.): <i>State facilities (pages 12-13) and Tables 3.8a-5 and 3.8a-6 and critical facilities</i></p>	<p>FLOOD: 3.4 (Facilities) Pages 1-4, and 8-10 describe the types of state owned or operated facilities and critical facilities that were used for the analysis. Section 3.7 (Flood) pages 20-22, and Tables 3.7-6 through 3.7-8 display the results of the analysis for state and critical facilities and flooding, and pages 41-44 and tables 3.7-14 and 3.7-16 display the results of the analysis for storm surge.</p>		<input checked="" type="checkbox"/>

	<p>(page 14) and Table 3.8a-7. 3.8c (Tornado): State facilities (page 10) and Tables 3.8b-4 and 3.8b-5 and critical facilities (page 11) and Table 3.8b-6. 3.9 (Winter): State facilities (page 16) and Tables 3.9-2 and 3.9-3 and critical facilities (page 17) and Table 3.9-4 3.10 (Drought): Lack of data for analysis is discussed on page 6. 3.11 (Wildfire): State facilities (page 9-10) and Tables 3.11-3 through 3.11-5 and critical facilities (page 11) and Table 3.11-6. 3.12 (Landslide): State facilities (page 6) and Tables 3.12-2 and 3.12-3 and critical facilities (page 7) and Table 3.12-4. 3.13 (Earthquake): State facilities (pages 18-20) and Tables 3.13-4 and 3.13-4 and 3.13-7 and critical facilities (page 20) and Table 3.13-9 (page 20). 3.14 (Karst): State facilities (page 6) and Tables 3.14-2 and 3.14-3 and critical facilities (page 7) and Table 3.14-4. 3.15 (Dam): Lack of data for analysis is discussed on pages 5 and 6.</p>	<p>NON-ROTATIONAL WIND (3.8A): State facilities that fall into the non-rotational wind hazard areas are identified on pages 12-13 which include the number of facilities as well as their total building value. Page 14 displays the type and number of critical facilities that fall within the non-rotational wind hazard areas. More information on state facilities and critical can be found in section 3.4.</p> <p>TORNADO (3.8B): State facilities and critical facilities that are in the 4 risk zones for tornado are identified. The types and numbers of critical facilities are identified in table 3.8b-6, and the number and building value of state facilities are identified on table 3.8b-4. The state agencies with the most facilities in high risk zones are highlighted on table 3.8b-5.</p> <p>WINTER WEATHER (3.9): Page 16 discusses the number of critical facilities that fall within the 4 designated risk zones. Figure 3.9-3 also displays the state facilities that have the most buildings and building value within the high risk zone. Page 17, figure 3.9-4 displays the critical facilities that are located within the 4 designated hazard areas.</p> <p>DROUGHT (3.10): A state and critical facility analysis was not performed for Drought due to the lack of data; limitations are discussed on page 6.</p> <p>WILDFIRE (3.11): Pages 9-10 discusses the state and critical facilities used for the wildfire analysis. They are displayed on tables 3.11-10 through 3.11-6.</p> <p>LANDSLIDE (3.12): Types of state facilities and critical facilities within the different hazard areas are included on pages 6-7.</p> <p>EARTHQUAKE (3.13): State facility analysis is on pages 18-20, tables 3.13-5 and 3.13-8 show the state agencies that have facilities within medium and high risk zones for earthquake. Page 20 shows the types of critical facilities within the earthquake hazard zones.</p> <p>LAND SUBSIDENCE (3.14): Pages 6-8, tables 3.14-2 through 3.14-4 identify the state facilities and critical facilities that are located in the identified hazard areas.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Pages 5 and 6 discuss the lack of data for analysis, no loss estimates were calculated.</p>	
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			SUMMARY SCORE	<input checked="" type="checkbox"/>

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	S
A. Does the new or updated plan present an overview and analysis of the potential losses to the identified vulnerable structures?	3.7 (Flood): Page 19 through 21 and Tables 3.7-6 through 3.7-8. 3.8b (Non-Rot.): Discussion of why loss estimates were not calculated for State facilities (page 12) and critical facilities (page 14). Vulnerable structures identified: State facilities Tables 3.8a-5 through 3.8a-6 (pages 12-13) and critical facilities Table 3.8a-7 (page 14). 3.8c (Tornado): Discussion of why loss estimates were not calculated for State facilities (page 10) and critical facilities (page 11). Vulnerable structures identified: State facilities Tables 3.8b-4 through 3.8b-5 (pages 10-11) and critical facilities Table 3.8b-6 (page 11). 3.9 (Winter): Discussion of why loss estimates were not calculated for State facilities (page 16) and critical facilities (page 17). Vulnerable structures	<p>FLOOD (3.7): Pages 20-22 and tables 3.7-6 and 3.7-7 identify potential losses of state owned and critical facilities. Pages 22-27 and table 3.7-11 identify jurisdictional loss estimations based on census block, HAZUS, and BCA data and estimates.</p> <p>NON-ROTATIONAL WIND (3.8A): Pages 12 and 14 outline that a loss estimate could not be calculated due to the lack of facility data. However, building values of the vulnerable structures were available and used in tables 3.8a-5 through 3.8a-6. Critical facilities were identified on table 3.8a-7; no building values were associated with the critical facilities.</p> <p>TORNADO (3.8B): No loss estimations were calculated, discussion of this is on pages 10 and 11 for state and critical facilities. However, building values for state facilities within the 4 risk zones were determined, and the top 5 agencies with the highest number of facilities within the high risk zone were highlighted on table 3.8b-5.</p> <p>WINTER WEATEHER (3.9): Loss estimations for winter weather could not be calculated for state facilities, and it is discussed on page 16 and 17. Figure 3.9-3 also displays the state facilities that have the most buildings and building value within the high risk zone. Page 17, figure 3.9-4</p>		<input checked="" type="checkbox"/>

	<p>identified: State facilities Tables 3.9-2 and 3.9-3 and critical facilities Table 3.9-4. 3.10 (Drought): Discussion of why loss estimates were not calculated for State facilities and critical facilities (page 6). 3.11 (Wildfire): Discussion of why loss estimates were not calculated for State facilities (page 9) and critical facilities (page 11). Vulnerable structures identified: State facilities Tables 3.11-3 through 3.11-5 and critical facilities Table 3.11-6. 3.12 (Landslide): Discussion of why loss estimates were not calculated for State facilities (page 6) and critical facilities (page 7). Vulnerable structures identified: State facilities Tables 3.12-2 and 3.12-3 and critical facilities Table 3.12-4. 3.13 (Earthquake): Discussion of why loss estimates were not calculated for State facilities (page 18) and critical facilities (page 20). Vulnerable structures identified: State facilities Tables 3.13-4 through Table 3.13-8 (pages 18-20) and critical facilities Table 3.13-9 (page 20). 3.14 (Karst): Discussion of why loss estimates were not calculated for State facilities (page 6) and critical facilities (page 7). Vulnerable structures identified: State facilities Tables 3.14-2 and 3.14-3 and critical facilities Table 3.14-4. 3.15 (Dam): Lack of data for analysis is discussed on pages 5 and 6. 3.16 (Overall):</p>	<p>displays the critical facilities that are located within the 4 designated hazard areas.</p> <p>Drought (3.10): Potential losses were not calculated for drought for state and critical facilities due to data limitations, see page 6 for details.</p> <p>WILDFIRE (3.11): Pages 9-10 discusses the state and critical facilities used for the wildfire analysis. The number of buildings and their value are listed on figure 3.11-3. Figure 3.11-4 identifies state agencies that have the most buildings within the high hazard zone. Figure 3.11-5 breaks the state facilities down by construction type, and figure 3.11-6 identifies the types and numbers of critical facilities in the 4 hazard zones.</p> <p>LANDSLIDE (3.12): The analysis of the state and critical facilities are included on pages 6-7. No annualized loss was calculated, but the state facilities building values within hazard areas were calculated, and the number of critical facilities per hazard area was included.</p> <p>EARTHQUAKE (3.13): Loss estimates for earthquake were not calculated, an explanation is on page 18. State facilities were analyzed based on building value within hazard areas. Pages 21-24 identify HAZUS runs and annualized losses per jurisdiction.</p> <p>LAND SUBSIDENCE (3.14): Page 6 describes why loss estimates were not calculated for land subsidence, and page 7 discusses the same for critical facilities.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Pages 5 and 6 discuss the lack of data for analysis, no loss estimates were calculated.</p>		
<p>B. Are the potential losses based on estimates provided in local risk assessments as well as the State risk assessment?</p>	<p>3.6 (Local Incorp): 3.7 (Flood): Page 21 and pages 30 through 33, Tables 3.7-12 and 3.7-13 and storm surge page 44 3.8b (Non-Rot.): Limited local</p>	<p>FLOOD: Estimated losses are based on the state risk assessment. Local risk assessments were analyzed and compared with the state risk assessment. Since many local risk assessments used different methodologies, local risk assessments for flood were not included in the state flood</p>		<p><input checked="" type="checkbox"/></p>

	<p><i>loss estimations are discussed in Local Risk Assessment text (page 19-20) and in Table 3.8a-8.</i></p> <p>3.8c (Tornado): <i>Limited local loss estimations are discussed in Local Risk Assessment text and in Table 3.8b-7 (pages 12-13).</i></p> <p>3.9 (Winter): <i>Limited local loss estimations are discussed in Local Risk Assessment text and in Table 3.9-5 (pages 17-18)</i></p> <p>3.10 (Drought): <i>Limited local loss estimations are discussed in Local Risk Assessment text and in Table 3.10-3 (page 7)</i></p> <p>3.11 (Wildfire): <i>Limited local loss estimations are discussed in Local Risk Assessment (pages 12-13) and in Table 3.11-7.</i></p> <p>3.12 (Landslide): <i>Lack of local loss estimation is discussed in Local Risk Assessment (page 10).</i></p> <p>3.13 (Earthquake): <i>Limited local loss estimations are discussed in Local Risk Assessment (pages 23-24).</i></p> <p>3.14 (Karst): <i>Lack of local loss estimation is discussed in Local Risk Assessment (page 8).</i></p> <p>3.15 (Dam): <i>Lack of data for analysis is discussed on pages 5 and 6.</i></p> <p>3.16 (Overall):</p>	<p>analysis. The local risk assessment information can be found in Section 3.7 pages 30-33, and in Section 3.6, Table 3.6-4.</p> <p>NON-ROTATIONAL WIND: Pages 19-20 discuss the analysis of local plan data, but concludes with it not being used because of inconsistencies with hazard categorization and loss estimations. Local incorporation is also discussed in more detail in section 3.6.</p> <p>TORNADO (3.8B): Pages 12-13 discuss local plan loss estimates and local plan data analysis. There were only several plans that provided loss estimation for tornado. Due to variability of local data, it was not included as a part of the statewide risk assessment for tornado. .Local incorporation is also discussed in more detail in section 3.6.</p> <p>WINTER WEATHER (3.9): Pages 17-18 discuss local plan risk assessments for winter weather and how each local plan ranked the winter weather hazard and the methodologies that they used to analyze risk. Only several local plans attempted annualized loss estimates, displayed on figure 3.9-5. .Local incorporation is also discussed in more detail in section 3.6.</p> <p>DROUGHT (3.10): Local risk assessment data and loss estimations are included on table 3.10-3 on page 7, however there were only several plans that attempted to calculate annualized loss for drought.</p> <p>WILDFIRE (3.11): Local risk assessments were analyzed and discussed on page 12. Only several loss estimates were calculated for local plans, and they were compared to the state loss estimates, but not included in the analysis.</p> <p>LANDSLIDE (3.12): Local risk assessments were discussed on page 10, loss estimations were based on state risk assessment, no loss estimates were performed in local plans for landslide.</p> <p>EARTHQUAKE (3.13): Pages 23-24 describe the limited loss estimates from local plans and compares those with the state estimates.</p> <p>LAND SUBSIDENCE (3.14): There were no loss estimates from local risk assessments for the land subsidence hazard. Potential losses for the state risk assessment are based on building values within the hazard areas.</p>	
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<p>C. Does the updated plan reflect the effects of changes in development on loss estimates?</p>	<p>3.7 (Flood): <i>Changes in Development (flooding page 33 and storm surge page 44).</i> 3.8b (Non-Rot.): <i>Changes in Development (page 120).</i> 3.8c (Tornado): <i>Changes in Development (page 13).</i> 3.9 (Winter): <i>Changes in Development (page 18).</i> 3.10 (Drought): <i>Changes in Development (page 7).</i> 3.11 (Wildfire): <i>Changes in Development (page 13).</i> 3.12 (Landslide): <i>Changes in Development (page 11).</i> 3.13 (Earthquake): <i>Changes in Development (page 24).</i> 3.14 (Karst): <i>Changes in Development (pages 8-9).</i> 3.15 (Dam): <i>Changes in Development (page 8).</i></p>	<p>FLOOD: 3.7 (Flood) Pages 33 and 45 describe development trends outlined in local hazard mitigation plans. More information on land use is outlined in section 3.2 (pages 13-20).</p> <p>NON ROTATIONAL WIND (3.8A): Changes in development are discussed on page 20 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>TORNADO (3.8B): Changes in development are discussed on page 13 in general terms. More information on land use and population trends for the state is outlined in section 3.2 (pages 13-20).</p> <p>WINTER WEATHER (3.9): Changes in development are discussed on page 18 in general terms. More information on land use and population trends for the state is outlined in section 3.2 (pages 13-20).</p> <p>DROUGHT (3.10): Changes in development are discussed on page 7 in general terms. Also land identified as agricultural land is identified on page 4. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>WILDFIRE (3.11): Changes in development are discussed on page 13 in general terms. More information on land use and population trends for the state is outlined in section 3.2 (pages 13-20).</p> <p>LANDSLIDE (3.12): Changes in development are discussed on page 11 in general terms. More information on land use and population trends for the state is outlined in section 3.2 (pages 13-20).</p> <p>EARTHQUAKE (3.13): Changes in development are discussed on page 24 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20.</p> <p>LAND SUBSIDENCE (3.14): Changes in development are discussed on pages 8-9 in general terms. More information</p>	

		<p>on land use and development can be found in Section 3.2, pages 13-20.</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Changes in development are discussed on page 8 in general terms. More information on land use and development can be found in Section 3.2, pages 13-20</p>		
SUMMARY SCORE				<input checked="" type="checkbox"/>

Estimating Potential Losses of State Facilities

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
<p>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?</p>	<p>3.7 (Flood): <i>Pages 19-20 and Tables 3.7-6 and 3.7-7. Loss is not calculated in \$ for critical facilities, explanation on page 21 and count of facilities in Table 3.7-8. Storm surge building value at risk on pages 41-42 and Tables 3.7-14 and 3.7-15</i></p> <p>3.8b (Non-Rot.): <i>Not calculated but building exposure for state facilities in risk zones are available in Table 3.8a-5 and -6 (pages 12-13) and general count of critical facilities on page 14 and in Table 3.8a-7..</i></p> <p>3.8c (Tornado): <i>Not calculated but building exposure for state facilities are available in Table 3.8b-4 (page 10) and general count of critical facilities on page 11 and in Table 3.8b-6.</i></p> <p>3.9 (Winter): <i>Not calculated but building exposure for state facilities is available in Table 3.9-2 (page 16) and general count of critical facilities on page 17 and in Table 3.9-4</i></p> <p>3.10 (Drought): <i>Lack of data for analysis is discussed on pages 6.</i></p> <p>3.11 (Wildfire): <i>Not calculated but building exposure is available in</i></p>	<p>FLOOD: 3.7 (Flood): page 19 through 21 and tables 3.7-6 and 3.7-7 display estimated losses to state owned and operated facilities. Critical facilities did not have attribute data for building value so it was not calculated. Building values for state facilities within the storm surge zones were also analyzed and displayed on page 41 and tables 3.7-14 and 3.7-15</p> <p>NON-ROTATIONAL WIND: Pages 12-13, tables 3.8a-5 and 3.8a-6 identify the building values that are exposed to the non-rotational wind hazard. No potential losses could be calculated as detailed building information was not available to warrant a calculation.</p> <p>TORNADO (3.8B): Loss estimations were not calculated, but the state facilities that are “exposed” or within the geographic area of the hazards were identified and their building values were included to determine the number of facilities and the potential damage should they be destroyed. The results of this can be found on tables 3.8b-4 and 3.8b-6.</p> <p>WINTER WEATEHER (3.9): Loss estimations for winter weather could not be calculated for state facilities, and it is discussed on page 16 and 17. Figure 3.9-3 also displays the state facilities that have the most buildings and building value within the high risk zone. Page 17, figure 3.9-4 displays the critical facilities that are located within the 4 designated hazard areas.</p> <p>DROUGHT (3.10): Loss estimates for state and critical facilities were not calculated due to the data limitations</p>		<input checked="" type="checkbox"/>

	<p>Table 3-11-3(page 9). Explanations for State facilities on pages 9-10 and Tables 3.11-3 through 3.11-5 and critical facilities on page 11 and Table 3.11-6. 3.12 (Landslide): Not calculated. Explanations for State facilities on page 6 and Tables 3.12-2 and 3.12-3 and critical facilities on page 7 and Table 3.12-4. 3.13 (Earthquake): Not calculated but building exposure is available in Table 3-13-4 (page 18). Explanations for State facilities on pages 18-20 and Tables 3.13-4 through 3.13-8 and critical facilities on page 20 and Table 3.13-9. 3.14 (Karst): Not calculated. Explanations for State facilities on page 6 and Tables 3.14-2 and 3.14-3 and critical facilities on page 7 and Table 3.14-4. 3.15 (Dam): Lack of data for analysis is discussed on pages 5 and 6.</p>	<p>discussed on page 6.</p> <p>WILDFIRE (3.11): Pages 9-10 discusses the state and critical facilities used for the wildfire analysis. The number of buildings and their value are listed on figure 3.11-3. Figure 3.11-4 identifies state agencies that have the most buildings within the high hazard zone. Figure 3.11-5 breaks the state facilities down by construction type, and figure 3.11-6 identifies the types and numbers of critical facilities in the 4 hazard zones.</p> <p>LANDSLIDE (3.12): The analysis of the state and critical facilities are included on pages 6-7. The top state agencies with facilities in the high risk area are included in table 3.12-3.</p> <p>EARTHQUAKE (3.13): Page 18, table 3.13-4 determines building exposure per hazard area. Estimated loss for state facilities was not calculated, and is explained on pages 18-20, top state agencies with buildings in medium-high hazard areas are identified on tables 3.13-5 and 3.13-8.</p> <p>LAND SUBSIDENCE (3.14): Pages 6-7 describe potential dollar losses in terms of building value that is exposed to the hazard areas. This is displayed on tables 3.14-2 through 3.14-4</p> <p>FLOODING FOLLOWING A DAM FAILURE (3.15): Pages 5 and 6 discuss the lack of data for analysis, no loss estimates were calculated.</p>		
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	S
A. Does the new or updated plan provide a description of State mitigation goals that guide the selection of mitigation activities?	Chapter 5, pages 5-2 – 5-3, Table 5.1	<p>This table displays the 4 overarching mitigation goals as well as the mitigation vision for the Commonwealth. Each goal is representative of each sub-committee, Structural, Planning, HIRA, and Outreach and Education. These goals are broken down into categories, and the strategies fall under those categories. The mitigation vision and goals are as follows:</p> <p>Mitigation Vision: It is one of the Commonwealth's visions to reduce the impacts of hazards on human, economic and natural resources throughout the state.</p> <p>Goal 1 (Structural): Identify and Implement projects that will eliminate long-term risk, directly reduce impacts from hazards, and maintain continuity of operations.</p> <p>Goal 2 (Planning): Incorporate mitigation concepts and objectives into existing and future policies, plans, regulations, and laws in the Commonwealth.</p> <p>Goal 3 (HIRA): Improve the quality of the data and analyses used in the hazard identification and risk assessment process.</p> <p>Goal 4 (Outreach and Education): Through training, education and outreach, promote awareness of hazards and potential mitigation strategies in order to increase resiliency.</p>		<input checked="" type="checkbox"/>
B. Does the updated plan demonstrate that the goals were assessed and either remain valid or have been revised?	Chapter 5, Page 5-1	This section discusses how each goal and objectives from the original plan were reviewed and updated by each sub-committee. Each sub-committee were provided a table of the goals from each of the 27 local hazard mitigation plans in order to try to integrate local hazard mitigation planning goals into the overarching state goals.		<input checked="" type="checkbox"/>
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	S
A. Does the new or updated plan include an evaluation of the State's pre-disaster hazard management policies, programs, and capabilities?	Chapter 4, Pages 4-2, and 4-9 – 4-22, Table 4.1	Table 4.1 outlines programs that can support mitigation before, during and after a disaster. Programs that have a check mark in the Pre-Disaster box indicate that these are pre-disaster mitigation programs and capabilities that can assist in reducing risk before the next event occurs.		<input checked="" type="checkbox"/>
B. Does the new or updated plan include an evaluation of the State's post-disaster hazard management policies, programs, and capabilities?	Chapter 4, Pages 4-2, and 4-9 – 4-22, Table 4.1	Table 4.1 outlines programs that can support mitigation before, during and after a disaster. Programs that have a check mark in the Post-Disaster box indicate that these are post-disaster mitigation programs and capabilities that can assist in recovery phase of the disaster and reduce the risk so that when the next event occurs damages/loss of life would be avoided. The most utilized program is the Hazard Mitigation Grant Program, FEMA Public Assistance, Individual Assistance, and SBA Loans.		<input checked="" type="checkbox"/>
C. Does the new or updated plan include an evaluation of the State's policies related to development in hazard prone areas ?	Chapter 4, Pages 4-29 – 4-31	These programs are enabled through state law and regulation and like the many state programs described in this chapter, contribute significantly to mitigation of natural hazards. In Virginia local jurisdictions control land use through ordinances and code. While these are state regulations, it is the responsibility of the local jurisdiction to adhere to the codes. Comprehensive planning, statewide building code, floodplain management, and zoning ordinances contribute to hazard reduction as land development and new construction are constantly taking place across the Commonwealth.		<input checked="" type="checkbox"/>
D. Does the new or updated plan include a discussion of State funding capabilities for hazard mitigation projects?	Chapter 4, Pages 4-2 – 4-8, 4-26, Table 4.1	Pages 4-2 – 4-8 describe the state's funding capabilities including the Commonwealth Sum Sufficient match for HMGP funds. In recent disaster declarations the Commonwealth has contributed 20% of the required 25% non-federal match for HMGP. Table 4.1 also indicates federal and state programs, those of which provide funding are indicated by a check mark in the funding box.		<input checked="" type="checkbox"/>
E. Does the updated plan address any hazard management capabilities of the State that have changed since approval of the previous plan?	Chapter 4, pages 4-6 and 4-30	These pages describe a new program, the Virginia Dam Safety, Flood Prevention & Protection Assistance Fund. This program is managed by DCR, and these funds can actually be used as non-federal match to certain flood mitigation		<input checked="" type="checkbox"/>

		projects. The 2003 Statewide Building Code that was present during the previous version of this draft, has now been updated and the 2006 Statewide Building Code is now what is in effect for state and local governments.		
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	S
A. Does the new or updated plan present a general description of the local mitigation policies, programs, and capabilities?	Chapter 4, Pages 4-29 – 4-32	This section describes the regulations issued in the code of Virginia, which includes building codes, comprehensive planning, zoning ordinance, and subdivision ordinance. Local jurisdictions have control over land use, and table 4.2 is a matrix of local capability assessments from all 27 local hazard mitigation plans.		<input checked="" type="checkbox"/>
B. Does the new or updated plan provide a general analysis of the effectiveness of local mitigation policies, programs, and capabilities?	Page 4-32	This section describes a general analysis of the effectiveness of local mitigation programs and capabilities. There are more and more local hazard mitigation plans being integrated into local comprehensive plans as future development has to consider the potential impacts regards to development in the floodplain.		<input checked="" type="checkbox"/>
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	S
A. Does the new or updated plan identify cost-effective, environmentally sound, and technically	Chapter 5, Table 5.1, Pages 5-6 – 5-17.	This table lists all of the 114 strategies and their status, which could be completed, in progress, not started, modified, or		<input checked="" type="checkbox"/>

feasible mitigation actions and activities the State is considering?		anceled.		
B. Does the new or updated plan evaluate these actions and activities?	Chapter 2, Page 2-7, Appendix E, 8/22/09 Meeting, Chapter 5, Page 5-1	These sections describe the process for evaluating the mitigation actions from the previous plan. Each year VDEM Staff request an annual report form on these strategies. During the 2010 update, the CVHMSC re-evaluated these actions to determine if they were still relevant or not, relevant actions were deferred, and others were deleted.		<input checked="" type="checkbox"/>
C. Does the new or updated plan prioritize these actions and activities?	Chapter 5, Pages 5-4 – 5-5	The CVHMSC revised the prioritization criteria from 14 in 2007, to 9 in 2010. The committee then ranked each of the actions identified in the previous two requirements, and that process is outlined on the pages referenced.		<input checked="" type="checkbox"/>
D. Does the new or updated plan explain how each activity contributes to the overall State mitigation strategy?	Chapter 5, Page 5-6	When discussing the mitigation strategy the plan describes that all of the strategies listed contribute to the overall mitigation strategy and vision for the Commonwealth, which is to reduce the impacts of hazards on human, economic and natural resources throughout the state. This is done through strategies that are structural, planning, risk assessment, and outreach and education in nature.		<input checked="" type="checkbox"/>
E. Does the mitigation strategy in the new or updated section reflect actions and projects identified in local plans?		<i>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</i> While the Commonwealth does have the Mitigation Strategies Spreadsheet which includes over 2,000 mitigation strategies from the 27 local 322 plans, integrating so many strategies that are local and specific in nature into the state plan was not done for this plan revision. Prior to the 2013 update a method for incorporating the local strategies into the state plan will be developed. VDEM mitigation planning staff are encouraging 5 year local revision to focus on "top 10" strategies for the jurisdiction not just to narrow their focus, but to also improve the capability of the state to integrate these strategies into the state plan.	<input checked="" type="checkbox"/>	
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	S
A. Does the new or updated plan identify current sources of Federal, State, local, or private funding to implement mitigation activities?	Chapter 4, Table 4.1, Appendix G	Table 4.1 identifies potential sources of funding for mitigation projects, including the 5 HMA programs. For mitigation strategies that are in progress and have been funded, those funding sources are indicated for each strategy in Appendix G.		<input checked="" type="checkbox"/>
B. Does the new or updated plan identify potential sources of Federal, State, local, or private funding to implement mitigation activities?	Chapter 4, Table 4.1, Appendix G	Table 4.1 identifies potential sources of funding for mitigation projects, including the 5 HMA programs. For mitigation strategies that have not been funded, those potential funding sources are indicated for each strategy in Appendix G.		<input checked="" type="checkbox"/>
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?	Appendix G	For mitigation strategies that have been completed since the previous plan was approved, the sources of funding are indicated for each strategy in Appendix G.		<input checked="" type="checkbox"/>
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	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?	Chapter 6, pages 6.2 – 6.3, pages 6-3 – 6-9	Section 6.3 describes the technical assistance provided to the local planning district commissions during the first round of local 322 plans in the Commonwealth. Section 6.3 describes the funding mechanisms used to support local 322 plans and Disaster Resistant Universities, and also has a breakdown of the funding source, fiscal year/disaster number, and the federal, state, and local share.		<input checked="" type="checkbox"/>
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?	Chapter 6, pages 6-10 – 6-14	This section describes how VDEM has supported mitigation plan revisions in the state since 2007, including the approval of two revised hazard mitigation plans for the cities of Poquoson and Chesapeake. Mitigation planning workshops and grant workshops are described to support local plan revisions.		<input checked="" type="checkbox"/>
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	S
A. Does the new or updated plan provide a description of the process and timeframe the State established to review local plans?	Chapter 6, Page 6-14	Section 6.10 describes the state process for reviewing local hazard mitigation plan, including requiring 30 days for review and including 3 additional requirements for Virginia on the crosswalk. These involve including flood maps, high hazard maps, and capability assessments. VDEM staff will fill in a completed crosswalk to make it easier for the FEMA Region III planner to review the plan.		<input checked="" type="checkbox"/>
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?	Chapter 6, pages 14-15, and 3.7 (Flood): <i>page 30 through 33 and page 44 for storm surge</i> 3.8b (Non-Rot.): <i>Limited local analysis is discussed in Local Risk Assessment (pages 19-20).</i> 3.8c (Tornado): <i>Limited local analysis is discussed in Local Risk Assessment (pages 12 -13)</i> 3.9 (Winter): <i>Limited local analysis is discussed in Local Risk Assessment (page 17).</i> 3.10 (Drought): <i>Limited local analysis is discussed in Local Risk Assessment (page 7).</i> 3.11 (Wildfire): <i>Limited local analysis is discussed in Local Risk Assessment (page 12).</i> 3.12 (Landslide): <i>Lack of local analysis is discussed in Local Risk Assessment (page 10).</i> 3.13 (Earthquake): <i>Limited local analysis is discussed in Local Risk Assessment (pages 23-24).</i>	Chapter 6 describes the method for incorporating the 27 completed mitigation plans into the 2010 update, but also discusses integrating updated plans into the 2013 update. The use of mitigation data worksheets for each plan will allow the data to be compiled as the plans become final and it can be integrated into future version of the plan. Also listed are sections of Chapter 3 (HIRA) that indicate local data was analyzed for this plan update.		<input checked="" type="checkbox"/>

	3.14 (Karst): <i>Lack of local analysis is discussed in Local Risk Assessment (page 8).</i> 3.15 (Dam): <i>Lack of local analysis is discussed in Local Risk Assessment (page 8)</i>			
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	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?	Chapter 6, Section 6.4.5, pages 6-9 – 6-10	Prioritization Criteria has been revised since the original plan to account for the transition from plan development to plan revision. There are 8 prioritization criteria for ranking local 322 plans for funding, as indicated this ranking system was used for the FY2010 HMA funding cycle and will be used for future funding for the foreseeable future.		✔
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?	Chapter 6, Section 6.4.5, page 6-9, Enhanced Appendix 3	Non-planning grants must pass a benefit cost analysis, meaning that the benefits and costs must have at least a 1:1 ratio. Examples of the FY2010 HMA rankings please see Appendix 3, ranking system.		✔
C. For the new or updated plan, do the criteria include considerations for communities with the highest risk?	Chapter 6, Section 6.4.5, Page 6-9, Part B.	<i>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</i> The Sub-Committee which met to rank the FY2010 applications were given hazard ranking maps from Chapter 3 to use as a guide to determine, in their opinion, which areas were at higher risk. This displays that areas in higher risk are in greater need of mitigation planning and funds to mitigate against those risks.		✔
D. For the new or updated plan, do the criteria include considerations for repetitive loss properties?	Chapter 6, Section 6.4.5, Page 6-9, Part G.	<i>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</i> Part of the ranking process involved accounting for the number of repetitive loss properties. For each regional plan application, the number of repetitive loss properties were totaled and each plan received a score which contributed to the total amount of points that the planning application would receive.		✔
E. For the new or updated plan, do the criteria include considerations for communities with the most intense development pressures?	Chapter 6, Section 6.4.5, Page 6-9, Part C.	<i>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</i> Populations is a big consideration for mitigation planning, as the more people you have in one location, generally the more infrastructure you have at risk. Population information was gathered for each region and each planning application received a score based on population.		✔
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	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)	Chapter 7, Pages 7-1 – 7-2	VDEM Mitigation Staff will be responsible for monitoring the plan and the implementation of it. Report forms have been established to send to state agency contacts to provide annual status updates on their identified strategies.		<input checked="" type="checkbox"/>
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)	Chapter 7, Page 7-4	VDEM will facilitate annual meetings with each sub-committee to discuss progress of strategies, implementation, and potential new strategies for the 2013 update.		<input checked="" type="checkbox"/>
C. Does the new or updated plan describe the method and schedule for updating the plan?	Chapter 7, Pages 7-5 – 7-6	Table 7.1 outlines the schedule for updating the plan before the 2013 expiration date.		<input checked="" type="checkbox"/>
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?	Chapter 7, Pages 7-4 – 7-5	This section discusses how changes in plan maintenance will improve the overall coordination of the 2013 update, as the 2010 update was essentially rebuilding the Steering Committee from the ground up.		<input checked="" type="checkbox"/>
SUMMARY SCORE				<input checked="" type="checkbox"/>

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	S
A. Does the new or updated plan describe how mitigation measures and project closeouts will be monitored?	Chapter 7, Section 7.2, Pages 7-6 – 7-7	This section outlines the closeout process for the Commonwealth, as well as the required documents that are sent to FEMA Region III and also maintained by the Commonwealth and the sub-grantee.		<input checked="" type="checkbox"/>
B. Does the new or updated plan identify a system for reviewing progress on achieving goals in the Mitigation Strategy?	Chapter 7, Section 7.1.3, Page 7-4	With each sub-committee meeting annually to review the strategies, it will also serve as an opportunity to evaluate how whether or not these strategies are meeting the identified goals.		<input checked="" type="checkbox"/>
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?	Chapter 7, Pages 7-1, and 7-3 – 7-5.	The tracking mechanism for the mitigation strategies will continue on through the 2013 update. However, the process has been changed to include annual sub-committee meetings to discuss the progress, effectiveness, and success of the identified mitigation actions. This will give the sub-committee, and thus		<input checked="" type="checkbox"/>

		other agencies in the state a buy-in for this planning process and hopefully result in improved strategies in future revisions.		
D. Does the new or updated plan identify a system for reviewing progress on implementing activities and projects of the Mitigation Strategy?	Chapter 7, Pages 7-1 – 7-2	The process for tracking implementation of the mitigation activities is described in this section. This involves an annual progress report for state mitigation strategies. A more pro-active approach is being taken for this plan revision to include more discussion among sub-committee members to keep them involved after the plan has been developed.		<input checked="" type="checkbox"/>
E. Does the updated plan discuss if mitigation actions were implemented as planned?	Chapter 5, Table 5.1, Appendix D, Appendix G.	<i>Note: Related to §201.4 (c)(3)(iii)</i> This table identifies the status of the mitigation activities, including the 34 Completed Mitigation activities. You will notice in Appendix D, on the mitigation annual report form that there is a question about whether or not this activity is still relevant to the state goals. Appendix G identifies reasons why they were either canceled or not started, usually due to funding restraints.		<input checked="" type="checkbox"/>
SUMMARY SCORE				<input checked="" type="checkbox"/>

SEVERE REPETITIVE LOSS STRATEGY (*only required for 90/10 under FMA & SRL*)

Repetitive Loss Mitigation Strategy

Requirement §201.4(c)(3)(v): A State may request the reduced cost share authorized under §79.4(c)(2) of this chapter for the FMA and SRL programs, if it has an approved State Mitigation Plan ... that also identifies specific actions the State has taken to reduce the number of repetitive loss properties (which **must** include severe repetitive loss properties), and specifies how the State intends to reduce the number of such repetitive loss properties.

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			NOT MET	MET
<p>A. Does the new or updated plan describe State mitigation goals that support the selection of mitigation activities for repetitive loss properties (see also Part 201.4(c)(3)(i))?</p>	<p>Chapter 5, Table 5.1, Pages, Appendix G, Pages G-20, G- 23, G-31, G-37</p>	<p>[Note: Only required for SRL 90/10 under FMA & SRL]</p> <p>The additional strategy S-18 is supportive of overarching Goal #1 "Structural Mitigation" – "Identify and Implement projects that will eliminate long-term risk, directly reduce impacts from hazards, and maintain continuity of operations." The strategy is as follows:</p> <ul style="list-style-type: none"> - Support Implementation of targeted hazard-prone properties, i.e., repetitive flood properties (FEMA repetitive loss and severe repetitive loss lists) through sponsorship of FEMA HMGP, FMA, PDM, RFC, and SRL Grant Programs. <p>The additional strategies P-1 and P-2 are supportive of overarching Goal #2 "Planning" – "Incorporate mitigation concepts and objectives into existing and future policies, plans, regulations, and laws in the Commonwealth." The strategies are as follows:</p> <ul style="list-style-type: none"> - Integrate repetitive loss list and severe repetitive loss list structural targeting into local, regional, and state mitigation planning and grant implementation property targeting. - Incorporate repetitive loss property strategies into local, regional, and state hazard mitigation plans. Target repetitive loss property mitigation through development of mitigation strategies for repetitive loss and severe repetitive loss properties to reduce damages from flooding and maintain local government eligibility for FMA, RFC, and SRL mitigation grant programs. Encourage targeting of repetitive loss and severe repetitive loss properties for mitigation funding through HMGP and PDM programs. 		

		<p>The additional strategy H-11 is supportive of overarching Goal #3, "HIRA" – "Improve the quality of data and analyses used in the hazard identification and risk assessment process." The strategy is as follows:</p> <ul style="list-style-type: none"> - Update Repetitive Loss Property lists As Needed: Update Repetitive Loss list on an annual basis, submit AW501 form to remove mitigated properties from list. <p>The additional strategy O-6 is supportive of overarching Goal #4, "Outreach and Education" – "Through training, education, and outreach, promote awareness of hazards and potential mitigation strategies in order to increase resiliency.</p> <ul style="list-style-type: none"> - Encourage local government sponsorship of grant projects to mitigate repetitive loss properties: Target repetitive loss property communities with district mailings, workshops, web-based guidance and project applications and technical support to maximize use of FEMA grant programs to mitigate targeted repetitive loss and severe repetitive loss properties. Maximize outreach through technical workshops. <p>The strategies have critical and high priorities and outline strategies for VDEM to target repetitive loss and severe repetitive loss properties for mitigation in support of the Commonwealth's 4 overarching goal of structural mitigation, planning and policy, information and data development, and education and outreach.</p>	
<p>B. Does the new or updated plan consider repetitive loss properties in its evaluation of the State's hazard management policies, programs, and capabilities and its general description of the local mitigation capabilities (see also Part 201.4(c)(3)(ii))?</p>	<p>Chapter 8, Pages 8-26 – 8-29, Chapter 4, Pages 4-5 – 4-6, and mitigation strategies S-18, P-1, P-2, H-11, and O-6.</p>	<p>[Note: Only required for SRL 90/10 under FMA & SRL]</p> <p>Due to the very specific nature of RFC, VDEM mitigation staff directly contacts all communities with structures that are listed in BureauNet/SQANET which meet the repetitive loss definition. The Commonwealth will review any and all applications received for acquisition/demolition or acquisition/relocation of any of these structures through the appropriate subgrantee. All applications are reviewed for completeness, eligibility of applicant, and cost-benefit. All applications that clear the review are submitted to FEMA for entry into the national competition for funds.</p> <p>VDEM staff is working with three interested SRL communities. At this writing, using traditional or alternate. The City of Salem successfully submitted a project for the acquisition of 6 residential SRL properties for FY08 funding, and Chesterfield</p>	<p style="text-align: right;"><input checked="" type="checkbox"/></p>

		<p>County just submitted an acquisition of 1 residential SRL property for FY2010 HMA. VDEM staff is currently working with the City of Chesapeake to submit an application for FY08/09 funds.</p> <p>VDEM continues to market the SRL program through modification of mitigation strategies in local and multi-jurisdictional all-hazard mitigation plans, through workshops and the e-newsletter "EM Update." Staff will continue to work with the SRL communities to verify property locations, damages, and potential project interest. Structural projects that are on the RFC and SRL lists will be given higher priority ranking due to the repetitive flood losses that these properties have experienced</p> <p>The mitigation strategies that are referenced discuss the targeting of RFC and SRL properties for structural mitigation, incorporating RFC and SRL into local mitigation plans and increased communication with local governments about these properties within their jurisdiction and possible mitigation projects.</p>		
<p>C. Does the new or updated plan address repetitive loss properties in its risk assessment (see also Part 201.4(c)(2))?</p>	<p>Chapter 3, Section 7, pages 3-12 – 3-17.</p>	<p>[Note: Only required for SRL 90/10 under FMA & SRL]</p> <p>This section of Chapter 3 displays areas of repetitive loss and severe repetitive loss. This gives the state and the local jurisdictions an idea of where the most vulnerable areas are based on insured rep loss properties. It also displays the historic dollar losses from these areas.</p>		<p><input checked="" type="checkbox"/></p>
<p>D. Does the new or updated plan identify, evaluate and prioritize cost-effective, environmentally sound, and technically feasible mitigation actions for repetitive loss properties (see also Part 201.4(c)(3)(iii))?</p>	<p>Chapter 5, Page 5-10, 5-12, 5-14, 5,16, Appendix G Pages G-20, G-23, G-31, and G-37.</p>	<p>[Note: Only required for SRL 90/10 under FMA & SRL]</p> <p>The additional strategies S-18, P-1, P-2, H-11, and the update of strategy O-6 are prioritized and cost-effective methods that are technically feasible and are supported by the Commonwealth's capability to promote the RFC and SRL programs. All structural mitigation projects have to pass a benefit-cost analysis as consistent with FEMA guidelines. These mitigation actions are supportive of the 4 overarching goals that were developed by the state hazard mitigation steering committee.</p>		<p><input checked="" type="checkbox"/></p>
<p>E. Does the new or updated plan describe specific actions that have been implemented to mitigate repetitive loss properties, including actions taken to reduce the</p>	<p>Chapter 8, Pages 8-28 – 8-29</p>	<p>[Note: Only required for SRL 90/10 under FMA & SRL]</p> <p>RFC 2007 Virginia's first RFC grant in 2007 allowed VDEM and the City of</p>		<p><input checked="" type="checkbox"/></p>

<p>number of severe repetitive loss properties?</p>		<p>Chesapeake to partner and acquire three properties with a grant valued at \$1,230,578. The 100% federal funding started to capture the interest of other jurisdictions. The removal of these flood prone properties demonstrated the City's interest in mitigation. This project also demonstrated the localities efforts in furthering their CRS compliance. The removal of three properties from the Repetitive Loss List demonstrated support for the NFIP.</p> <p><u>RFC 2008</u> The second RFC award was received in 2008 and also provided funds to the City of Chesapeake for acquisition and demolition of flood prone properties. This grant was valued \$583,650 and was again 100% federally funded. This funding has allowed for two properties to be removed from the NFIP Repetitive Loss List.</p> <p><u>RFC 2009</u> The continued success of the RFC program in Chesapeake combined with VDEM's mitigation marketing inspired three localities to apply for funding under this program. One project has been awarded to the City of Norfolk for an elevation and is valued at \$193,600. One project was denied due to not meeting BCA requirements, and the other was denied for concerns with technical feasibility.</p> <p><u>RFC 2010</u> On December 4, 2009, VDEM submitted three projects for consideration under the 2010 RFC grant period. The first project was resubmitted from the 2009 grant cycle, for the elevation of five residential structures. This project was initially denied due to concerns of technical feasibility. VDEM worked with Lancaster County to gather additional information on costs and engineering designs and resubmitted this project. Another elevation project was submitted on behalf of Gloucester County for the elevation of eight residential structures. The final project was the acquisition of one floodprone property in Fairfax County. VDEM is waiting to hear on the status of these projects.</p> <p><u>SRL 2008</u> VDEM in partnership with the City of Salem was awarded a grant to acquire and demolish six SRL properties. The federal funds awarded totaled \$821,265.20. This grant has also captured some interest from other localities due to the minimal 10% required non-federal match. The acquisition and demolition of these properties directly supports the locality, the state, and the NFIP goal of mitigating flood prone properties. It directly supports the NFIP goal of reducing the number of high-claims flood prone properties.</p>	
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		<p><u>SRL 2009</u> Regretfully, the state had only one locality interested in this grant. VDEM could not forward the application to FEMA as the project did not meet BCA requirements.</p> <p><u>SRL 2010</u> The State worked with Chesterfield County and submitted an acquisition project for one home. The homeowner is eager to sell their property after years of flooding has damaged parts of the structure severely.</p> <p>VDEM continues to market the SRL program through modification of mitigation strategies in local and multi-jurisdictional all-hazard mitigation plans, through workshops and the e-newsletter “EM Update.” Staff will continue to work with the SRL communities to verify property locations, damages, and potential project interest.</p> <p>Mitigation projects have been implemented that address flooding, hurricane, wind, severe weather and human-caused hazards (terrorism, Arlington County) since the inception of the program. These efforts have targeted Commonwealth’s most severe hazards. Mitigation of repetitive and severe repetitive loss properties remains a strong objective of all VDEM mitigation programs, whether pre-or post-disaster grant programs.</p>	
<p>F. Does the new or updated plan identify current and potential sources of Federal, State, local, or private funding to implement mitigation activities for repetitive loss properties (see also Part 201.4(c)(3)(iv))?</p>	<p>Chapter 5, pages 5-10, 5-12, 5-14, 5,16, Appendix G Pages G-20, G-23, G-31, and G-37.</p> <p>Chapter 4, Pages 4-4 – 4-8</p>	<p>[Note: Only required for SRL 90/10 under FMA & SRL]</p> <p>The following is Strategy S-18 acknowledges the use of FEMA grant programs for targeting and funding mitigation of repetitive loss and severe repetitive loss programs:</p> <p>Support implementation of structural mitigation of targeted hazard-prone properties i..e. repetitive flood properties (FEMA repetitive loss and severe repetitive loss lists) through sponsorship of FEMA HMGP, FMA, PDM, RFC and SRL grant programs.</p> <p>CDGB and ICC funding are also listed as a possible funding source for mitigation activities.</p> <p>Where Floodplain Management Assistance plans had been approved, the FMA program provided limited funds to acquire and demolish NFIP Repetitive Loss properties</p>	

			SUMMARY SCORE	<input checked="" type="checkbox"/>

Coordination with Repetitive Loss Jurisdictions

Requirement §201.4(c)(3)(v): *In addition, the plan **must** describe the strategy the State has to ensure that local jurisdictions with severe repetitive loss properties take actions to reduce the number of these properties, including the development of local mitigation plans.*

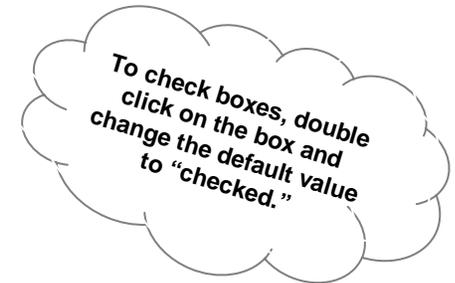
Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan provide a description of the State process to support, through funding and technical assistance, the development of local mitigation plans in communities with severe repetitive loss properties (see also Part 201.4(c)(4)(i))?	Chapter 6, Pages 6-13 – 6-14	[Note: Only required for SRL 90/10 under FMA & SRL] The Commonwealth has been supportive of development of Flood Mitigation Plans to support eligibility of Flood Mitigation Assistance grant projects for more than ten years. With the inception of all-hazard mitigation planning, many local and regional §322 plans were cross-walked and approved to meet FMA plan standards per §78.5 of 44 CFR Flood Mitigation Plan Development. In fact, FY2007, 2008, and 2009 funds have been approved through FMA for the city of Poquoson, Middle Peninsula, and Accomack-Northampton PDC to support hazard mitigation plan revisions for flooding. All jurisdictions that have RFC and SRL properties are covered by a FEMA approved 322 plan, RFC and SRL properties will be incorporated and analyzed further in the 5 year revisions as required by the updated FEMA Local Hazard Mitigation Planning Guidance, dated July 1, 2008		✓
B. Does the new or updated plan include considerations for repetitive loss properties in its criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available mitigation funding programs (see also Part 201.4(c)(3)(iii))?	Chapter 6, Pages 6-9 – 6-10, Enhanced Appendix 3.	[Note: Only required for SRL 90/10 under FMA & SRL] Prioritization criteria, Part G: Areas with Repetitive Loss and Severe Repetitive Loss: Areas with higher numbers of repetitive loss and severe repetitive loss properties are an indicator of repetitive damages. These locations will be targeted for mitigation projects through HMA grants to reduce the amount of insurance claims against the NFIP.		✓
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal Erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal Storm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dam Failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drought	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Earthquake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expansive Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme Heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hailstorm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hurricane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land Subsidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landslide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Levee Failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severe Winter Storm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tornado	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tsunami	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volcano	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildfire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Windstorm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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?

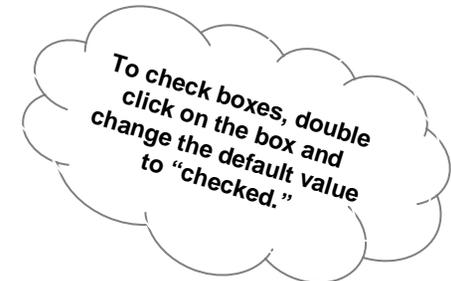
B. Does the plan provide information on previous occurrences of each hazard addressed in the **new or updated** plan?

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)	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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal Erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal Storm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dam Failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drought	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Earthquake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expansive Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme Heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hailstorm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hurricane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land Subsidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landslide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Levee Failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severe Winter Storm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tornado	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tsunami	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volcano	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildfire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Windstorm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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?